National Emphysema Treatment Trial

NETT

Limited Access Database Documentation

June 2008

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Dataset Specifications

1. These are the limited access master data files for NETT as of the October, 2004 TR Master Database. Mortality (as included in the valids.xpt file) is up to date through 31 May 2008. Death report forms (as included in the dr.xpt file) were collected by clinics through September 2004.

2. Data files and this documentation are included on the CD. Data files are:

aa.xpt	mm.xpt	subnejm.xpt
ab.xpt	mo.xpt	substudy.xpt
at.xpt	mv.xpt	tmto.xpt
bu.xpt	pe.xpt	ue_admit.xpt
dr.xpt	pm.xpt	ue_exreh.xpt
eb.xpt	pulmfunc.xpt	ue_lvr14.xpt
eh.xpt	qb.xpt	ue_nnett.xpt
er.xpt	qe.xpt	ue_noreh.xpt
es.xpt	qf.xpt	ue_ref.xpt
ew.xpt	qg.xpt	ue_trns.xpt
ga.xpt	qs.xpt	valids.xpt
hb.xpt	qw.xpt	vc.xpt
hf.xpt	rc.xpt	wcore.xpt
hi.xpt	rcore.xpt	whole.xpt
iacparam.xpt	resid.xpt	wpeel.xpt
inelig.xpt	rhole.xpt	wver2.xpt
ja.xpt	rp.xpt	xp.xpt
lcore.xpt	rpeel.xpt	xs.xpt
lhole.xpt	rr.xpt	xz.xpt
lpeel.xpt	rver2.xpt	
lver2.xpt		

Other files included on the CD are: limaccdoc.pdf (this documentation).

3. Data file format: SAS transport files

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General Comments on Database

Introduction: The NETT Limited Access Database is derived from the October 2004 version of the NETT Master Database and Social Security Administration death information collected through 31 May 2008. The Limited Access Database includes data collected in the main trial and the Cardiovascular Substudy, the Exercise ABG Substudy, and the Lung Mechanics Substudy, as well as data generated by the IAC from the chest CT scans collected in NETT.

Data for randomized patients and data for non randomized patients are included in the Database.

The Database includes data collected under the original contract period, data collected under the initial extension (data collection in 2003), and data collected in the mailed quality of life followup (January through June 2004). Vital status is up to date through 31 May 2008.

The NETT data are too voluminous to provide one record per patient with all NETT data included. What we have provided are files for specific data forms or for types of data. A SAS Proc Contents listing is provided for each file. In the case of files that correspond to specific NETT forms, early form revisions have been coded to the most recent revision of the form; copies of the most recent revision of a form are included with this documentation. Form revisions may result in blank items for some items if the item in question was not included on the earlier form version.

The MEDID variable in the valids.xpt file identifies whether a patient is randomized or not, and if randomized, it identifies the randomly assigned treatment (MEDID=blank if non randomized, =1 if assigned to medical treatment, =2 or 3 if assigned to LVRS [2= median sternotomy, 3=VATS]).

File formats, variable names, and variable formats: All files are in SAS transport file format. Each variable on each file has an associated SAS label, except in the case of the files received from the IAC. Variables which are in direct correspondence to a form item (and so in direct correspondence to the response categories on the form) are named ffxiii where ffx is the form abbreviation and revision number and iii is the item number. For example, variable aa309 is item 9 on revision 3 of form AA.

Deletions to protect patient confidentiality: The Limited Access Database does not include these items of information, even though they were collected on NETT forms: Clinic, date of birth, zip code of residence, height, weight, HIC number, social security number, type of health insurance, data in response to Other (specify) items, data in response to administrative information sections on forms (staff PIN, date and time of next appointment, form review date), death certificate data, satellite information, and comment fields. Race/ethnicity responses have been pooled to be Caucasian (white) or other. Age at start of screening is provided on the EB form, but age 51 or less is coded as 00 and age 80 or greater is coded as 99. Adverse event forms are not included in the Database.

Dates: All dates have been converted to the number of days before or after the randomization date, if the patient was randomized (so for randomized patients, date of randomization [variable name ENROLLDT] = 0).   For non randomized patients, all dates have been converted to the number of days after the date screening started (so for non randomized patients, date screening started [variable name ELIGDT] = 0).

Patient ID number and clinic identifiers: Every record includes a recoded ID number for the patient the record refers to. The variable corresponding to the recoded patient ID number (variable name NEWNETT) is a 5 character alphabetic text string.

Visit codes: NETT visit codes are s1, s2, s3, rz, n, f01, f02, f04, f06, f08, f10, f12, f15, f18, f21, f24, f27, f30, f33, f36, f39, f42, f45, f48, f51, f54, f57, and f60. For visits with code fxx, xx is the number

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General Comments on Database (cont'd)

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of months from randomization. Visit codes s1and s2 refer to pre rehabilitation, pre randomization visits. A patient has a visit s2 if the visit was needed to obtain certain measurements that were within 42 days of the start of rehab. A patient has a visit rz if the visit was needed to obtain certain measurements that were within 21 days of randomization. Hence, not all patients will have s2 visits and not all patients will have rz visits for measurement data.

The rz visit code was also used for four randomization phase forms: the XZ form (which documents randomization to treatment), the RP form (which documents the perfusion scan done prior to randomization), and the XS and XP surgery data forms. The n visit code was used for forms that are not associated with a particular visit. The n visit code was also used for the quality of life forms collected during the second extension of NETT followup (mailed collection of quality of life forms in the first six months of 2004).

Decimal points have not been keyed for numeric data items. Variables that are in direct correspondence with a form item remain in the format that they were keyed in – ie, character data and without a decimal point. The user must transform the keyed value into numeric data as needed (eg, you must divide by 10, 100, or other appropriate denominator depending on the format of the item on the NETT form). If there is no denominator (ie, the item was recorded in a whole number format), then add 0 to a numeric item to transform the data from character to numeric. If the variable name is not in the format ffxiii, then the variable most likely has already been put into analysis-ready format.

Pre rehab and post rehab baseline values: When identifying the pre rehab baseline value for a specific procedure, the records for the specific procedure being analyzed need to be checked for s1 and s2 values, and the later visit constitutes the pre rehab baseline; similarly, when identifying the post rehab baseline for a specific procedure, the records for the specific procedure being analyzed need to be checked for s3 and rz values, and the later visit constitutes the post rehab baseline. If the patient has both s1 and s2 values for a measurement, the s2 value is used as the pre rehab value. If a patient has both s3 and rz values for a measurement, the rz value is used as the post rehab value. Note that only measurements that were out of these time windows were repeated – a patient could have a mix of s1 and s2 values serve as the pre rehab baseline values (eg, s1 spirometry might have been within 42 days of starting rehab, while the s1 exercise test was out of that window, requiring the exercise test, but not spirometry, be repeated at s2; in this case the s2 exercise test value serves as the pre rehab baseline exercise value and the s1 spirometry values serve as the pre rehab baseline spirometry values).

In general, the baseline from which change from baseline to followup is calculated is the post rehab, pre randomization value.

Visit dates: The procedures for a NETT visit could be spread over several days so long as all dates were within the time window for the visit. The time windows for the NETT visits (ideal, opening date, closing date; enrolldt=randomization date) are:

        f01 (enrolldt+30, ideal-14, ideal+14)
        f02 (enrolldt+61, ideal-14, ideal+14)
        f04 (enrolldt+122, ideal-14, ideal+14)
        f06 (enrolldt+183, enrolldt+92, enrolldt+274; at least 90 days after randomization)
        f08 (enrolldt+244, ideal-14, ideal+14)
        f10 (enrolldt+304, ideal-14, ideal+14)

f12 (enrolldt+365, enrolldt+275, enrolldt+547; at least 90 days after f06)
f15 (enrolldt+457, ideal-14, ideal+14)
f18 (enrolldt+548, ideal-14, ideal+14)
f21 (enrolldt+639, ideal-14, ideal+14)
f24 (enrolldt+730, enrolldt+548, enrolldt+913; at least 183 days after f12)
f27 (enrolldt+822, ideal-14, ideal+14)
f30 (enrolldt+913, ideal-14, ideal+14)
f33 (enrolldt+1004, ideal-14, ideal+14)
f36 (enrolldt+1096, enrolldt+914, enrolldt+1278; at least 183 days after f24)
f39 (enrolldt+1187, ideal-14, ideal+14)
f42 (enrolldt+1278, ideal-14, ideal+14)
f45 (enrolldt+1370, ideal-14, ideal+14)
f48 (enrolldt+1461, enrolldt+1279, enrolldt+1644; at least 183 days after f36)
f51 (enrolldt+1552, ideal-14, ideal+14)
f54 (enrolldt+1644, ideal-14, ideal+14)
f57 (enrolldt+1735, ideal-14, ideal+14)
f60 (enrolldt+1826, enrolldt+1645, enrolldt+2009; at least 183 days after f48)

A standard month consists of 30.4375 days and a standard year consists of 365.25 days. The ideal date for a visit is the anniversary of the randomization date.

NETT phases and changes in protocol that resulted in changes in forms required at visits: Data collection on NETT patients began in October, 1997. NETT randomizations began in January, 1998 and ended in July 2002. The original contract phase of patient followup ended on 31 December 2002. NETT was granted a one year extension of followup which allowed followup to be extended from 1 January 2003 through 31 December 2003. NETT was then granted a six months extension of followup for collection by mail of quality of life forms (31 December 2003 through 30 June 2004). Data from all three of these calendar periods of followup are included in this database.

During the original contract period, patients were seen in person for visits f06, f12, f24, f36, f48, and f60. The other fxx visits were telephone visits. A listing of the forms used at each visit is included with this documentation. Starting with the extension year (1 January 2003 through 31 December 2003), only visits f06, f24, f36, and f60 were done in person; the same sets of forms were completed at these visits as were completed during the original phase. During the extension year, visits f12 and f48 were done by telephone and included only the Interim History (IH) form. The telephone visits (f01, f02, f04, f08, f10, f15, f18, f21, f27, f30, f33, f39, f42, f45, f51, f54, f57) and the telephone visit (AT) form were not completed during the extension year. **Analyses that include the extension period (1 January 2003 through 31 December 2003) cannot assume that missing procedure data for visit f12 and f48 are missing due to physical inability of the patient to attend the visit – the procedures were not required to be done at f12 and f48 during 2003.**

During the period of mailed quality of life followup (31 December 2003 through 30 June 2004), only forms QF, QG, QS, and QW were completed. Each patient was asked to complete the forms once during this period and completion could occur at any time during this period. The quality of life forms completed by mail as part of this extension period use visit code n. If you want to analyze the mailed quality of life forms, select QF, QG, QS, and QW forms with visit code n. Another way to use these forms is to map the forms into fxx visit windows and retain those that do not map into an already occupied visit window (ie, a visit for which the form was completed during the one year

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General Comments on Database (cont'd)

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extension followup).

Change in 6 minute walk testing protocol: Day 2 six minute walks were eliminated on 24 May 1999.

Vital status: Vital status included in the valids.xpt file (VITSTAT variable indicating dead/alive and DEATHDT variable indicating date of death) is as of 31 May 2008. The sources of vital status information are clinic reports through September 2004 and matches to the Social Security Administration Master Death File through May 2008. We did not have a date of death for every non randomized patient reported as deceased. Every randomized patient reported as deceased does have a known date of death. Thus for non randomized patients, VITSTAT and DEAHTDT are not in 1-1 correspondence, but the two variables are in 1-1 correspondence for randomized patients. Also note that the file dr.xpt is the file of death reports from clinics and hence is only up to date through September 2004.

Cautions when dealing with data for non randomized patients: Non randomized patients have incomplete data entry. Every non randomized patient has an EB and an EH form. Non randomized patients who started rehabilitation are also required to have an ER form. No other forms were required for non randomized patients, but other forms keyed for non randomized patients have been retained in the database.

Subgroup status: Five subgroups with differential outcomes by treatment group were identified during the course of NETT: high risk, upper lobe predominant emphysema and low exercise, upper lobe predominant emphysema and high exercise, non upper lobe predominant emphysema and low exercise, and non upper lobe predominant emphysema and high exercise. The subnejm.xpt file indicates subgroup membership for each patient randomized in NETT.

Substudy participation: Data from three substudies conducted in NETT (Cardiovascular, Exercise ABG, and Lung Mechanics) are included in this database. The substudy.xpt file indicates substudy participation for each patient (randomized and non randomized) who participated in at least one of these substudies.

IAC data: The raw IAC data are provided in 12 files: 4 relating to the right lung (rcore.xpt, rpeel.xpt, rver2.xpt, and rhole.xpt), 4 relating to the left lung (lcore.xpt, lpeel.xpt, lver2.xpt, and lhole.xpt), and 4 relating to the whole lung (wcore.xpt, wpeel.xpt, wver2.xpt, and whole.xpt). Within each right lung and left lung file, there are variables relating to the upper, middle, and lower sections of the lung (the variables start with u, m, and l, respectively), as well as variables that relate to the entire (right or left) lung.

Within the core, peel, and ver2 files, there are a series of variables of the form bexxx (eg, be960, be950, etc); each represents the number of voxels below the xxx threshold (Hounsfield cutoff value). There are also a series of variables of the form aexxx (eg, ae50, ae100, etc); each represents the number of voxels above the xxx threshold.

You can calculate % emphysema for the whole lung, the right lung, the right upper lung, the right upper lung core, the right upper lung peel, etc. The basic calculation is bexxx/totvx. NETT investigators have had long discussions about which Hounsfield cutoff value to use. Some felt that the cutoff value should be specific to the slice thickness used in the scan. Slice thickness (slicethi) is specified in each file and varies from 2.47 to 10.5; you can use -950 for < 5 mm, -930 for 5-7.5 mm,

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-910 for > 7.5 mm. Since the 75th percentile of slice thickness is around 5, this amounts to using -950 for most scans.

For a specific Hounsfield cutoff, core + peel = ver2.

The hole files have a series of "alpha" variables, each corresponding to a specific Hounsfield cutoff value. Alpha_1 corresponds to -950, alpha_2 corresponds to -930, and alpha_3 through alpha_6 correspond to -910, -890, -870 and -850, respectively.

For the xxx Hounsfield cutoff, % emphysema is calculated by:

    Whole lung: bexxx (from wver2 file) / totvx (from wver2 file)
    Whole core: bexxx (from wcore file) / totvx (from wcore file)
    Whole peel: bexxx (from wpeel file) / totvx (from wpeel file)

Difference in % emphysema, upper lung - lower lung, is calculated by

    (UpperR + UpperL)-(LowerR + LowerL)

Using -950 as the cutoff, the formula is:

    [ube950 (from rver2) + ube950 (from lver2)]/[utotvx (from rver2)+utotvx (from lver2)] -

    [lbe950 (from rver2) + lbe950 (from lver2)]/[ltotvx (from rver2)+ltotvx (from lver2)]

Difference in alpha, upper lung - lower lung, is calculated by

    (UpperR + UpperL)-(LowerR + LowerL)

Using -950 as the cutoff, the formula is:

    [ualpha_1 (from rhole)+ualpha_1 (from lhole)] - [lalpha_1 (from rhole)+lalpha_1 (from lhole)]

Two possible definitions of upper lobe predominant by IAC parameters are:

    (1) Upper lobe predominant if difference in alpha, upper - lower, < 0
         Not upper lobe predominant if difference in alpha, upper - lower, $\geq$ 0

    (2) Upper lobe predominant if different in % emphysema, upper - lower, > 0
         Not upper lobe predominant if difference in % emphysema, upper - lower, $\leq$ 0

A file with calculated IAC parameters (iacparam.xpt) is provided, as well as the 12 raw data files. The parameters in iacparam.xpt relate to the -950 and -960 thresholds.

There are a large number of additional variables included in the IAC data files. These are described in general in the IAC Scan Analysis Variables listing included later in this documentation. Many of these interrelate the locations of emphysematous voxels with regional centroids (whole lung; upper, middle, lower lung; left and right lungs).

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Specific Comments on Database

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aa.xpt: All AA forms in AA3 format. Item 10, the specify data in items 27 and 29, and items 30-34 have been deleted. Every randomized patient has an AA form.

ab.xpt: All AB forms in AB2 format. Items 10 and 20-24 have been deleted. The AB form was not required if the patient did not complete any post randomization rehabilitation (this event should be documented in ue_noreh.xpt).

at.xpt: All AT forms in AT3 format. The specify data in items 7, 23, 36, and 27 have been deleted. Items 28-36 have been deleted. Note that this form was completed regardless of the success of the interview. That is, the completed AT form can document an interview with the patient, an interview with someone who knows the whereabouts of the patient, and an interview that could not be completed because the patient was unavailable and no one with knowledge of the patient was available for interview. Thus a count of AT forms does not give a count of completed telephone interviews – the contents of the AT form need to be examined to determine which kind of interview the form documents.

bu.xpt: All BU forms in BU2 format. Alpha 1 anti-trypsin data are available at s1. A1AT concentration (item 16) has been converted to mg/dl (concentrations in mg/ml were multiplied by 100 and concentrations in μM were multiplied by 7.5); the new variable name is A1ATCONC. Item 17 has been recoded to A1ATPTYP. The specify data in item 22 have been deleted. Items 23-27 have been deleted.

dr.xpt: All DR forms in DR2 format. The specify data in item 8 have been deleted. Items 9-12 have been deleted. A death report form was to be completed for any registered NETT patient who was reported to be deceased. Hence, this file includes death report forms for randomized and non randomized patients. DR forms were last collected from clinics at the start of October 2004. Hence the dr.xpt file includes death data only as known by clinics through September 2004. Vital status and date of death information are best obtained from the vitstat and deathdt variables in the valids.xpt file.

eb.xpt: All EB forms in EB2 format. Item 9 has been deleted, and age (item 10) has been recoded to 00 if age 51 or less and to 99 if age 80 or greater. Item 12 has been dropped (ethnicity coded as white or other is available in the valids.xpt file). Specify data in items 16, 23, 27, and 29 have been dropped. Items 15, 19, 21, 28, 31, 55-58, 60-67 have been deleted.

eh.xpt: All EH forms in EH3 format. Specify data in Items 8, 14 and 24 have been deleted. Items 25-29 have been deleted. Every patient who has an EB form has an EH form. The EH form contains the spirometry and lung function values and CT scan scores for the ineligible patients who did not initiate rehab, if those values were available (the patient could have been found to be ineligible before any of those procedures were done, or after only some of those procedures were done). Also, these values are not available for patients who were found to be ineligible after initiating rehab and who had Form ER completed (because those patients appeared to be eligible as of completion of Form EH).

er.xpt: All ER forms in ER3 format. Specify data in items 10, 14, 15, 16, and 28 have been deleted. Items 29-35 have been deleted. Every patient who started rehab has an ER form, but not every patient who started rehab went on to randomization.

es.xpt: This is the Exercise ABG Substudy record for the cycle ergometry exercise test. Every patient has an EW form (the main trial record for the cycle ergometry exercise test), regardless of participation in the Exercise ABG Substudy; for those who participated in the Exercise ABG

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Substudy, the ES form includes the data unique to the Exercise ABG Substudy. If you want all of a patient's exercise test data, you need to use the union of the ES and EW forms (match the records on NETT ID number and visit code). Borg scores that did not match the allowed values (0, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) have been rounded to the nearest value on the scale. Items 11-15 have been deleted.

ew.xpt: All EW forms in EW1 format. If the protocol was not followed for the exercise test, maximum work was considered to be missing. If the patient completed the 5 minute rest phase and the 3 minutes of unloaded pedaling, but could not do any loaded pedaling, maximum work was considered to be 0 watts. The MAXWK variable in the ew.xpt file has been coded according to this algorithm. In April 1998, the ramp rate options for the NETT exercise test were changed from 4 and 8 watts/minute to 5 and 10 watts/minute. Item 10 is coded as: 1=4 watts/min, 2=8 watts/min, 3=5 watts/min, 4=10 watts/min. Borg scores that did not match the allowed values (0, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) have been rounded to the nearest value on the scale. Specify data in items 13, 15, 18, 19, and 21 have been deleted. Items 7 and 22-26 have been deleted.

ga.xpt: All GA forms in GA1 format. Items 7 and 9-12 have been deleted. Item 7 was deleted since some clinic IRBs did not require additional consent for the extension year.

hb.xpt: All HB forms in HB3 format. Specify data in items 10, 23, 24, 26, 27, 29, 31, 34, 35, and 43 have been deleted. Items 17 and 46-48 have been deleted.

hf.xpt: All HF forms in HF4 format. Specify data in items 9, 29, 32, and 33 have been deleted. Items 34-39 have been deleted. Versions 2 and 3 of the HF form did not include a sign for measured systolic RV pressure (item 26b on version 4 of the HF form).

hi.xpt: All HI forms in HI3 format. Specify data in items 11, 20, 26, 27, 28, 30, 31, 38, and 39 have been deleted. Items 12, 23, 33, 35, and 40-44 have been deleted.

iacparam.xpt: This file includes a few parameters calculated from the raw data in the 12 IAC files. See the PROC CONTENTS listing for the specific parameters provided.

inelig.xpt: This file is a synthesis of the data on EH and ER forms relating to reasons why patients were ineligible for NETT. This file was created by the Coordinating Center based on the EH and ER data and possibly data from other forms and correspondence or conversations with clinic staff about the specific patient. This is the Coordinating Center's best effort to classify why a specific patient was not eligible in NETT. Patients can be ineligible for more than one reason.

ja.xpt: All JA forms in JA1 format. Specify data in item7 were deleted. Items 13-15 were deleted.

lcore.xpt: IAC file relating to digitized CT scans. Core file for the left lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

lhole.xpt: IAC file relating to digitized CT scans. Holes file for the left lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each

randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

lpeel.xpt: IAC file relating to digitized CT scans. Peel file for the left lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

lver2rz.xpt: IAC file relating to digitized CT scans. Ver2 file for the left lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

mm.xpt: All MM forms in MM3 format. In May 1999, the protocol was changed to not require a Day 2 6 minute walk. If the record dates from the period when both Day 1and Day 2 walks were required, the record has variable mm207=1 or mm207=2. If mm207 is blank, the test is from the period when the Day 2 walk was not required. This change in protocol was implemented while patients were in the midst of testing – for example, a patient can have Day 1 and Day 2 walks for visit s1 and just a single walk for visit s2. In general, when working with the pre randomization data, you need to identify a patient's record for each visit and then identify which visit to use and some patients will have one record per visit and some will have two records. In the NEJM papers, when both Day 1 and Day2 walks were available for analysis, we used the longest walk for the visit. Walk distances have been converted to feet. Borg scores that did not match the allowed values (0, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) have been rounded to the nearest value on the scale. Specify data in items 19 and 21 have been deleted. Items 13 and 22-26 have been deleted.

mo.xpt: All MO forms in MO3 format. Borg scores that did not match the allowed values (0, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) have been rounded to the nearest value on the scale. Specify data in items 10, 12, 17, 18, 19, 24, and 32 have been deleted. Items 7 and 35-39 have been deleted.

mv.xpt: All MV forms in MV4 format. Note that during the extension year (ie, 2003), the only form required for f12 and f48 was the HI form. Thus, during the extension year, f12 and f48 may be completed or may be missed completely; they cannot be incomplete. During the original contract period (ie, before 31 Dec 2002), MV forms were not required for visits whose window opened in 2002 and closed in 2003. However, visits that were started before 31 Dec 2002 had to be fully accounted for. MV forms were not completed during the second extension of followup (mailed quality of life questionnaires) – we have no information regarding why living patients who did not complete questionnaires did not do so. Specify data in items 8, 9, 11, 12, and 13 were deleted. Items 14-16 were deleted.

pe.xpt: All PE forms in PE2 format. Height and weight have been deleted (items 8-11). Specify data in items 17, 18, 19, 20, 22, 24, 25, 27, 28, 29, and 30 have been deleted. Items 31-35 have been deleted.

pm.xpt: All PM forms in PM3 format. Items 30-34 have been deleted.

pulmfunc.xpt: This file is based on the PF forms. Lung function values on Form PF have been

reformatted as numeric data, predicted values have been calculated for FVC, FEV_1, TLC, RV, and D_LCO, and percent of predicted values have been calculated. All D_LCO values are uncorrected for hemoglobin. D_LCO values from all clinics except NJC are uncorrected for altitude; all D_LCO values from NJC have been corrected for altitude. Predicted values were calculated using the prediction equations of Crapo and Morris:

> Crapo RO, Morris AH, Gardner RM: Reference spirometric values using techniques and equipment that meet ATS recommendations. Am Rev Resp Dis 1981;123:659-664.

> Crapo RO, Morris AH, Clayton PD, Nixon CR: Lung volumes in healthy nonsmoking adults. Bulleton Europeen de Physiopathologie Resiratoire 1982;18:419-425.

> Crapo RO and Morris AH: Standardized single breath normal values for carbon monoxide diffusing capacity. Am Rev Resp Dis 1981;123:185-189.

Predicted values are specified to 2 decimal places except for D_LCO, which is specified to 1 decimal place. Percent of predicted is rounded to the nearest integer. All respiratory mouth pressures have been converted to cmH_2O.

qb.xpt: All QB forms (Beck Depression Inventory) in QB2 format. Items 9-13 have been deleted. Note that the responses to individual items were not keyed.

qe.xpt: All QE forms (Self Evaluation Questionnaire) in QE2 format. Items 8-10 have been deleted. Note that the responses to individual items were not keyed.

qf.xpt: All QF forms (SF- 36) in QF2 format. Individual item responses are provided, as well as the 8 Sherbourne-Hayes subscale scores, the 8 Ware subscale scores, and the Ware PCS and MCS summary scores. Users should realize that the PCS and MCS scores are calculated from Ware subscale scores, not Sherbourne-Hayes subscale scores. Items 7-9 have been deleted. Item 21 was never keyed.

qg.xpt: All QG forms (St George's Respiratory Questionnaire) in QG2 format. Individual item responses are provided, as well as the total score and the symptoms, activities, and impacts subscale scores. Items 7-9 have been deleted. Item 60 was never keyed.

qs.xpt: All QS forms (UCSD Shortness of Breath Questionnaire) in QS2 format. Individual item responses are provided as well as the total score. Items 7-9 have been deleted. Item 34 was never keyed.

qw.xpt: All QW forms in QW2 format. Individual item responses are provided as well as the average daily score. The records in this file correspond 1-1 with actual completed QW forms. If you are doing an analysis where you want to assign dead participants a score of 0, you need to create QW records for these patient-visits. Specify data in item 52 have been deleted. Items 7-9 and 70 have been deleted. Item 10 was never keyed.

rc.xpt: All RC forms in RC2 format. Other specify data in item 11 have been deleted. Items 12-17 have been deleted. The baseline record includes a variable HETEROBL which corresponds to the heterogeneous/non heterogeneous (homogeneous) characterization used in the high risk subgroup paper (NEJM 2001;345:1075-83) and a variable UPLOBBL which corresponds to the upper lobe

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predominant/non upper lobe predominant characterization used in the primary outcome paper (NEJM 2003;348:2059-73). Heterogeneity was assessed from the CT scan zone scores provided by the radiologist on the RC form. A patient was considered to have heterogeneous emphysema if the maximum difference in zone scores for either the right or left side was at least 2. All other score combinations were considered non heterogenous (homogeneous is the term used in the paper). The upper lobe characterization was a qualitative characterization of the cranio-caudal distribution of emphysema by the radiologist recorded on the RC form. Any characterization other than upper lobe predominant was considered non upper lobe. There are more records in rc.xpt than there are CT scans in the IAC files. Not every non randomized patient had RC keyed and not every scan that was taken for a randomized patient was transmitted to the IAC and some transmitted scans were not analyzable by the IAC.

rcore.xpt: IAC file relating to digitized CT scans. Core file for the right lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

resid.xpt: Residence over time data compiled from EB, HI, and AT forms and coded to the categories used in the NEJM primary outcome paper (private home, nursing home or rehab facility, or acute care hospital).

rhole.xpt: IAC file relating to digitized CT scans. Holes file for the right lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

rp.xpt: All RP forms in RP2 format. Items 9-13 have been deleted. Perfusion ratio (prat) is calculated as the ratio of the sum of the % perfusion in the upper zones of both lungs to the sum of the % perfusion in the middle and lower zones of both lungs ((rp208al+rp208ar)/(rp208bl+rp208br+rp208cl+rp208cr)). Note that the 6 percent perfusion values had to sum to 100%. All prat values were rounded to the nearest hundredth (x.xx).

rpeel.xpt: IAC file relating to digitized CT scans. Peel file for the right lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

rr.xpt: All RR forms in RR2 format. Specify data in item 8 have been deleted. Items 9-13 have been deleted.

rver2.xpt: IAC file relating to digitized CT scans. Ver2 file for the right lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

subnejm.xpt: One record per randomized patient indicating status with respect to the high risk subgroup and the 4 subgroups of non high risk patients discussed in the NETT primary outcome paper.

substudy.xpt: One record per randomized patient participating in at least one of the 3 substudies. Indicates participation status in the ABG Exercise Substudy, Cardiovascular Substudy, and Lung Mechanics Substudy.

tmto.xpt: All TM forms in TM1 format and all TO forms in TM1 format. TO forms have been combined with the TM forms (the TO variables have been mapped to the corresponding TM variables). The original form is evident by the value of the form variable. Also, TM209 and TM210 are missing if the original form was TO. The TM form was used for visits s1, f24, and f48 while the TO form was used for visits f12, f36, and f60. Specify data in item 10 have been deleted. Items 11-15 have been deleted.

ue_admit.xpt: Includes a record for each known admission of a patient to a medical institution other than an acute care hospital reported on Form UE (ie, yes to item 35 on Form UE). Record is composed of items 7 and 37-39 on form UE.

ue_exreh.xpt: Includes a record for each prescription of extra rehab for a patient (patients may have more than one record; ie, yes to item 19 on Form UE). Record is composed of items 7 and 20, 22, 25, 27, 30, and 32 on form UE.

ue_lvr14.xpt: Includes a record for each patient assigned to LVRS who had LVRS more than 14 days after randomization (ie, yes to item 13 on Form UE). Record is composed of items 14-16 on form UE (but specify information from items 15 and 16 have been deleted).

ue_nnett.xpt: Includes a record for each patient known to have received LVRS outside of NETT (ie, yes to item 40 on Form UE). Record is composed of items 41-45 on form UE (with specify information from item 41 deleted).

ue_noreh.xpt: Includes a record for each randomized patient who did not complete any rehab sessions after randomization (ie, no to item 17 on Form UE). Record is composed of NEWNETT only.

ue_ref.xpt: Includes a record for each patient randomized to LVRS who refused LVRS after randomization or who was refused LVRS after randomization (ie, yes to item 9 or 11 on Form UE). Record is composed of items 9-10 on form UE (with specify information from item 10 deleted) .

ue_trns.xpt: Includes a record for each patient known to have received a lung transplant during NETT followup (ie, yes to item 47 on Form UE). Record is composed of items 48 and 49 on form UE.

valids.xpt: ID, demographic, and treatment assignment information are included in this file. Note that MEDID=1 corresponds to assignment to medical treatment, MEDID=2 corresponds to assignment to median sternotomy, and MEDID=3 corresponds to assignment to VATS. The ethnicity variable included in this file has been recoded to w (Caucasian) or o (other). Vital status is included in this file (vitstat =1 if dead, blank=alive) and is as of 31 May 2008.

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vc.xpt: If you wish to match the vc.xpt records to data from another file, match on ID number and visit code. Another caution: the data entry program for form VC accepted whatever was keyed for item 19 (mean pulmonary arterial end expiratory pressure) and item 20 (mean pulmonary arterial end inspiratory pressure) since some clinics recorded the calculated value and some clinics recorded the readout from the "mean" switch. To be consistent, calculate item 19 as (item 15+(2 x item 17))/3 and item 20 as (item 16+(2 x item 18))/3.

wcore.xpt: IAC file relating to digitized CT scans. Core file for the whole lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

whole.xpt: IAC file relating to digitized CT scans. Holes file for the whole lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

wpeel.xpt: IAC file relating to digitized CT scans. Peel file for the whole lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

wver2.xpt: IAC file relating to digitized CT scans. Ver2 file for the whole lung. If you match this file to the rc.xpt file (on ID number and visit code), be aware that non randomized patients may not have an RC form keyed and that CT scans were not sent to the IAC for every RC form keyed for each randomized patient (ie, this file will not be in 1-1 correspondence with the RC file and the discrepancies may be of two kinds).

xp.xpt: All XP forms in XP3 format. The questions about air leak on the original version of XP (XP2) were constructed so that duration of air leak in the 30 day post operative period was recorded only if there was an air leak and this information was not specific for right or left side. Data from XP2 have been mapped to the XP3 questions as best as possible, but the mapping did not allow much use of data from XP2. Using the XP3 questions about airleak (items 9-14) will exclude many patients who had XP2 completed from the analysis. Two new variables were created to help deal with this problem: (1) ALDURE or maximum days with air leak on either side and (2) ALDYNE or air leak, yes/no, in the 30 day post operative period. Specify data from items 11, 14, 29, and 32 have been deleted. Items 36 and 37 and 42-46 have been deleted.

xs.xpt: All XS forms in XS3 format. Version 2 of the XS form (form=xs2) did not ask about number of VATS incisions and length of longest VATS incision by side; instead this version asked about total number of incisions and length of the longest incision. So as not to lose all information about number of incisions and length of the longest incision from these forms, two new variables were created: TOTNINC (total number of incisions, ie, number of incisions on the Right side + number of incisions on the Left side) and MAXINCL (length of the longest incision on either the Right or Left side). Similarly, version 2 of the XS form did not ask about air leak at closure by side, but asked this for both sides pooled, using the same grading scheme as used on XS3 in item 28.

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Therefore, AIRLKCLE was created; AIRLKCLE is the maximum airleak code for either side; the codes have been converted from character to numeric. Specify data from items 8, 11, 15, 19, 20, 21, 22, 24, 25, 31, 34, and 41 have been deleted. Items 42 and 48-53 have been deleted.

xz.xpt: All XZ forms in XZ2 format. Specify data from items 10 and 12 have been deleted. Items 14-18 have been deleted.

IAC Scan Analysis Variables

For each of the 58 variables listed in the table below we will be generating parameters for the Whole lung (W), Right lung (R), Left lung (L), Right Upper (RU), Right Middle (RM), Right Lower (RL), Left Upper (LU), Left Middle (LM), and Left Lower (LL) lung sections. The lung sector prefixes will precede each of the 47 different Variable names to yield a total of 423 parameters (9x47) for each patient. (I.e. "RUairV", "WRb920" etc.)

VarID	Variable	VarFullName	Description
1	HistoID		
2	H*CreateTS	Histogram Created	Date and Time the histogram program was ran
3	ptid	NETT ID + Scan Date	Unique identifier for each scan processed.
4	NETTID	NETT ID	
5	ScanDateU	Scan Date	
6	SliceThickness	Slice Thickness	
7	Intercept	Value given in dicom header	This value is used to convert a voxel value into houndsfield units.
8	VxSize	Voxel Size	
9	EntityVer	Module version	The histogram program version number used to create the data.
10	TotVx	Total pixels	Total number of voxels within a region.
11	be960	Below -960	Number of voxels below -960 houndsfield units within a region.
12	be950	Below -950	Number of voxels below -950 houndsfield units within a region.
13	be940	Below -940	Number of voxels below -940 houndsfield units within a region.
14	be930	Below -930	Number of voxels below -930 houndsfield units within a region.
15	be920	Below -920	Number of voxels below -920 houndsfield units within a region.
16	be910	Below -910	Number of voxels below -910 houndsfield units within a region.
17	be900	Below -900	Number of voxels below -900 houndsfield units within a region.
18	be890	Below -890	Number of voxels below -890 houndsfield units within a region.
19	be870	Below –870	Number of voxels below –870 houndsfield units within a region.
20	be850	Below -850	Number of voxels below –850 houndsfield units within a region.
21	be830	Below -830	Number of voxels below –830 houndsfield units within a region.
22	be810	Below –810	Number of voxels below –810 houndsfield units within a region.
23	be660	Below –660	Number of voxels below –660 houndsfield units within a region.
24	be640	Below –640	Number of voxels below –640 houndsfield units within a region.
25	be620	Below –620	Number of voxels below –620 houndsfield units within a region.
26	be600	Below -600	Number of voxels below –600 houndsfield units within a region.
27	ae50	Above -50	Number of voxels above -50 houndsfield units within a region.
28	ae100	Above -100	Number of voxels above -100 houndsfield units within a region.
29	ae150	Above -150	Number of voxels above -150 houndsfield units within a region.
30	ae200	Above -200	Number of voxels above -200 houndsfield units within a region.
31	ae250	Above -250	Number of voxels above -250 houndsfield units within a region.
32	mean	Mean	Mean
33	med	Median	Median
34	sd	Standard Deviation	Standard Deviation
35	skew	Skewness	Skewness
36	kurt	Kurtosis	Kurtosis
37	fwhm	Full-width Half-max	The difference between the values of points at which the height of the histogram is half the maximum height
38	airV	Air Volume	Volume of Region that is Air (in milliliters)
39	tisV	Tissue Volume	Volume of Region that is Tissue and Blood (not Air) (in milliliters)
40	totV	Total Volume	Total Volume of Region (in cubic milliliters)

41	knee	Knee	**For Knee and Ankle Variables see text below
42	kSlp	Knee Slope	
43	kInt	Knee Intercept	
44	ankl	Ankle	
45	aSlp	Ankle Slope	
46	aInt	Ankle Intercept	
47	cCutoff	Default is -910	Users puts in value for calculating the cut off range for the emphysema measurement.
48	cVm	Mean of Centroid Vectors	Mean distance of emphysematous voxels from centroid of volume of lung being evaluated
49	cVsd	Standard Deviation of Centroid Vectors	St Dev of distance of emphysematous voxels from centroid of volume of lung being evaluated
50	cVXm	Mean of X-component of Centroid	Mean distance of emphysematous voxels from centroid of volume of lung being evaluated (X dimension: + = left, - = right)
51	cVXsd	StDev of X-component of Centroid	St Dev of distance of emphysematous voxels from centroid of volume of lung being evaluated (X dimension)
52	cVYm	Mean of Y-component of Centroid	Mean distance of emphysematous voxels from centroid of volume of lung being evaluated (Y dimension: + = ventral, - = dorsal)
53	cVYsd	StDev of Y-component of Centroid	St Dev of distance of emphysematous voxels from centroid of volume of lung being evaluated (Y dimension)
54	cVZm	Mean of Z-component of Centroid	Mean distance of emphysematous voxels from centroid of volume of lung being evaluated (Z dimension: + = apical, - = basal)
55	cVZsd	StDev of Z-component of Centroid	St Dev of distance of emphysematous voxels from centroid of volume of lung being evaluated (Z dimension)
56	HU10	Houndsfield Units at 10%	Hu value below which 10% of the voxels fall
57	HU15	Houndsfield Units at 15%	Hu value below which 15% of the voxels fall
58	HU20	Houndsfield Units at 20%	Hu value below which 20% of the voxels fall
59	NomAir	Nominal Air	The nominal air value in a CT scan. Only in Whole lung tables.
60	ActAir	Actual Air	The actual air value in the CT scan. Only in Whole lung tables.
61	NomBT	Nominal Blood	The nominal blood tissue value in a CT scan. Only in Whole lung tables.
62	ActBT	Actual Blood	The actual blood tissue value in the CT scan. Only in Whole lung tables.

**Definitions of "Knee" and "Ankle" Variables

The points of inflection of the cumulative histogram of pixel densities would be the two points for which the histogram would be at it highest positive slope and steepest negative slope (second derivative equal to zero). The highest positive slope is the ankle and the highest negative slope is the knee.

1. If we take all the cumulative histogram values below the ankle and keep only the middle third of these values: the "slope of ankle" is the slope of a line fitted to these middle points; and the "intercept of ankle" is the intercept of the line fitted to these middle points.

2. If we take the values that lie between the two points of inflection (ankle and knee) and throw out the highest and lowest thirds: The "slope of the knee" is the line fitted to these middle points, and the "intercept of the knee" is the intercept of the line fitted to these middle points.

The Holes tables:

For each of the 27 variables listed in the table below we will be generating parameters for the Whole lung (W), Right lung (R), Left lung (L), Right Upper (RU), Right Middle (RM), Right Lower (RL), Left Upper (LU), Left Middle (LM), and Left Lower (LL) lung sections. The lung sector prefixes will precede each of the 18 different Variable names to yield a total of 72 parameters (4x18) for each patient. (I.e. "RUCutoff_1", "LLCutoff_1" etc.)

VarID	Variable	VarFullName	Description
1	HoleID		
2	HWCreateTS	Hole Created	Date and Time the hole program was ran
3	ptid	The NETT ID + Scan Date	Unique identifier for each scan processed.
4	NETTID	NETT ID	
5	ScanDateU	Scan Date	
6	SliceThickness	Slice Thickness	
7	Intercept	Value given in dicom header	This value is used to convert a voxel value into houndsfield units.
8	VxSize	Voxel Size	
9	EntityVer	Module version	The hole program version number used to create the data.
10	Cutoff_1	-950 HU	Voxel value below –950 used to determine the hole (the area of emphysema).
11	Alpha_1	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
12	C1_1	Y Intercept	
13	Cutoff_2	-930 HU	Voxel value below –930 used to determine the hole (the area of emphysema).
14	Alpha_2	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
15	C1_2	Y Intercept	
16	Cutoff_3	-910 HU	Voxel value below –910 used to determine the hole (the area of emphysema).
17	Alpha_3	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
18	C1_3	Y Intercept	
19	Cutoff_4	-890 HU	Voxel value below –890 used to determine the hole (the area of emphysema).
20	Alpha_4	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
21	C1_4	Y Intercept	
22	Cutoff_5	-870 HU	Voxel value below –870 used to determine the hole (the area of emphysema).
23	Alpha_5	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
24	C1_5	Y Intercept	
25	Cutoff_6	-850 HU	Voxel value below –850 used to determine the hole (the area of emphysema).
26	Alpha_6	Slope	The x axis is the log of the hole size and the y axis is the log of the percentage of the # of holes > & = to hole size.
27	C1_6	Y Intercept	

For the graph of the hole measurements we use the equation $\log N = -\text{alpha}(\log a) + C1$, where N is defined as the percentage number of holes. C1 is the y intercept on the graph and alpha is the slope of the graph.

Whole Lung

Nc: Number of Holes >= A (in Percentage - log scale)
A: Area of Holes (in mm² - log scale)
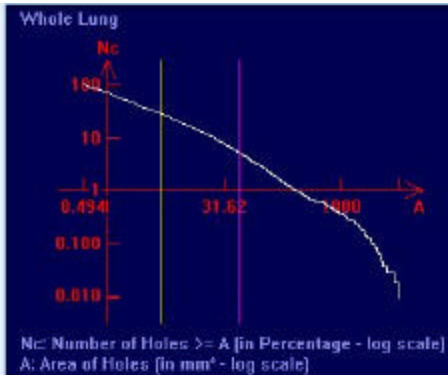
Computed tomography (CT).

CT Part 1: This imaging series is designed for the detection of pulmonary nodules, which may represent bronchogenic carcinoma in this high-risk patient population. No spirometric control of respiration is proposed due to the complexity of assuring consistency across all centers.

Volumetric Helical/Spiral CT
Patient position: supine
Collimation: 5-8 mm collimation
Pitch: 1.7:1
Reconstruction interval: 50% overlap (ex. 4 mm recon. interval for 8 mm collimation)
Reconstruction algorithm: Standard (also include Lung, if possible)
120 to 140 kVp
FOV: outer ribs at widest dimension thorax
Scan direction: lung apex to base (cranial to caudal)
Suspended full inspiration (TLC)
Breathing instructions: 3-4 hyperventilatory breaths prior to scan
If patient can breath hold for entire scan, do in one breath; otherwise, scan in 2 breath-holds dividing the lungs in half from apex to top of the diaphragm, overlapping by 1 cm
No intravenous contrast (unless indicated by specific chest radiographic abnormalities)
Photography: film 12-20 on 1; lung windows at width 1500, level -600 to -750 May photograph every other reconstructed image

CT Part 2. This imaging series will be used for scoring emphysema severity and bronchiectasis.

HRCT-Suspended Full Inspiration (TLC)
1 mm collimation
10 mm (1 cm) intervals
High spatial frequency (bone) reconstruction
Field of view to encompass lung only
mAs: minimum 200 (greater in large patients)
Scan apex to base
Allow sufficient pauses between breath holds
Photography: Film 12 on 1; window width 1500, level -600 to -750

CT Part 3: This imaging series may be helpful in accentuating the attenuation differences between normal lung and emphysema.

HRCT-Suspended End Expiration (FRC)
1 to 1.5 mm collimation
20 mm (2 cm) intervals (minimum)
High spatial frequency (bone) reconstruction
Field of view to encompass lung only
mAs: minimum 200 (greater in large patients)
Scan apex to base
Allow sufficient pauses between breath holds
Photography: optional   Film 12 on 1; window width 1500, level -600 to -750

Emphysema scores
- Each lung is divided into 3 zones and each zone is given a score 0-4 (integer scores only)

  - 0: Normal (no destruction)
  - 1: Mild (1-25% destruction)
  - 2: Moderate (26-50% destruction)
  - 3: Marked (51-75% destruction)
  - 4: Severe (> 75% destruction)

- The zones are:

  Upper: Lung apex to the top of the aortic arch
  Middle: Aortic arch to the right inferior pulmonary vein
  Lower: Right inferior pulmonary vein to the most caudal extent to the lungs

- Emphysema is characterized as:

  Heterogenous: Maximum difference on at least 1 side is ≥ 2
  Moderate to marked homogeneous: All 2s or a combination of 2s and 3s but not all 3s
  Marked to severe homogeneous: All 3s or a combination of 3s and 4s but not all 4s or a combination of 2s, 3s, and 4s such that the maximum difference on each side is ≤ 1
  Other: Any other combination of scores

Perfusion scintigraphy (Q scan).

Perfusion Scan Protocol	
Radiopharmaceutical	Technetium 99m macroaggregated albumin (^{99m}Tc MAA)
Dose	3 or 4 mCi (dose of 6 mCi for patients over 100 kg) acceptable)
Number of Particles/Dose	100,000–500,000
Energy Peak	140 keV — 20% symmetric window
Position During Injection	Supine (patient may be erect or reclining if he/she cannot lie flat). Inject slowly over 5–10 respiratory cycles. Do not draw blood into the syringe.
Collimator	Parallel hole, low energy, all purpose
Position During Imaging	Erect (supine if patient cannot cooperate)
Projections	Anterior, posterior, both laterals, both posterior obliques, both anterior obliques
Number of Counts/Image	600,000 - 750,000 for posterior, anterior, and all obliques; 500,000 - 600,000 for lateral view with best perfusion, same time for other lateral; 1,000,000 counts/image for all views is also acceptable
Scintillation Camera	Wide field of view
Computer	All images will be stored on a computer for further analysis

Perfusion scans are evaluated quantitatively and qualitatively for areas of abnormal (decreased or absent) perfusion. The evaluation results are recorded on the Perfusion Scan (RP) form.

Quantitative analysis. Quantitative analysis will include only anterior and posterior views of the lungs and will be based on geometric areas of interest assigned.

1. Determine the boundaries of the lungs by careful inspection of the images on the monitor.

2. Construct a rectangle abutting the outermost margins in the superior, inferior, medial, and lateral aspects of lungs.

3. Divide the rectangle into 3 equal zones (upper, middle, and lower) by assigning 2 horizontal lines within the rectangle; make certain that rectangles reconstructed on anterior and posterior views are similarly positioned with respect to the lung they encompass and are superimposable.

4. Geometric mean counts in each zone will be measured by multiplying the number of counts and calculating the square root of this product.

5. Calculate percent perfusion to each zone based on geometric mean counts as follows:

$$\text{percent perfusion} = \frac{\text{geometric mean of zone counts}}{\text{geometric mean of counts in both lungs}} \times 100$$

6. Record the percent perfusion for each of the 6 zones on the Perfusion Scan (RP) form. The sum of the percent perfusion over the 6 zones should be 100%.

Qualitative scoring. Each lung is divided into three zones of equal height, for a total of six zones. For each zone, score the homogeneity of perfusion using the following scheme:

A = homogeneous perfusion
B = mildly heterogeneous perfusion
C = moderate to severe heterogeneity of perfusion

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)

Eligibility check prior to NETT testing

s1	EB	Brief Screen for Eligibility	Interview; complete before initiating any NETT testing

Screening and pre rehab assessments

s1	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, A1AT, cotinine, urinanalysis
	HB	Baseline History	Interview
	PF(PW)	Pulmonary Function Summary	Spiro, lung vols, $D_L CO$, PI_{max}/PE_{max}, resting ABG, MVV
	RC	CT Scan Report	CT scan evaluation
	RR	Chest Radiograph Summary	Chest X-ray evaluation
	HF	Heart Function Summary	Resting EKG, echo, dobutamine-radionuclide cardiac scan, right heart cath and/or cardiologist consult if needed, timing of cath and consult at clinic discretion so long as done pre-randomization
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	ES	Exercise substudy	Only if in substudy
	PM	Mechanics substudy	Only if in substudy
	VC	Cardiovascular substudy	Only if in substudy

Rehab Eval forms

s1	QB	Beck Depression Inventory	Questionnaire
	QE	Self-Evaluation Questionnaire	Questionnaire
	TM	Trail Making Test	Test

Pre-rehab repeat assessments (repeat any done > 42 days previous to start of Core Rehab)

s2	PE	Physical Examination	Physical exam
	HI	Interim History	Interview
	PF(PW)	Pulmonary Function Summary	Spiro, lung vols, $D_L CO$, PI_{max}/PE_{max}, resting ABG, MVV
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	ES	Exercise substudy	Only if in substudy

Eligibility check

s2	EH/SH	Pre Rehab Elig Check	--

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)

Post-rehab assessments

s3	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Cotinine for non nicotine users
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	AA	Core and Cont Rehab Summary	Summary of Core and Cont Rehab participation
	ES	Exercise substudy	Only if in substudy

Post rehab repeat assessments (repeat any done more than 21 days prior to randomization)

rz	PE	Physical Examination	Physical exam
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	ES	Exercise substudy	Only if in substudy

Measurements done for randomization

rz	RP	Perfusion Scan	Perfusion scan

Randomization

rz	ER/SZ	Final Eligibility Review	None
	XZ	Documentation of Randomization	Randomization
	XS	Surgery Summary Report	Summarize events of surgery day
	XP	Post-Operative Summary Report	Summarize 30 day events
	AB	Post Randomizaton Rehab Summ.	Summarize attendance in 8 wks post RZ rehab

Followup (note that telephone visits were not done during 2003)

f01	AT	Reg Sched Telephone Contact	Interview
f02	AT	Reg Sched Telephone Contact	Interview
f04	AT	Reg Sched Telephone Contact	Interview

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)
f06	PE	Physical Examination	Physical exam
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	RC	CT Scan Report	CT scan
	RR	Chest Radiograph Summary	Chest x-ray
	HF	Heart Function Summary	Echocardiogram
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	ES	Exercise substudy	Only if in substudy
	VC	Cardiovascular substudy	Only if in substudy
f08	AT	Reg Sched Telephone Contact	Interview
f10	AT	Reg Sched Telephone Contact	Interview
f12	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, urinalysis
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, $D_L CO$, PI_{max}/PE_{max}, resting ABG, MVV
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	TO	Alternate Trail Making Test	Test
	ES	Exercise substudy	Only if in substudy

HI only during 2003

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)
f15	AT	Reg Sched Telephone Contact	Interview
f18	AT	Reg Sched Telephone Contact	Interview
f21	AT	Reg Sched Telephone Contact	Interview

Visit/Phase, Form, Procedure Schedule: All Visits (cont'd)

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)
f24	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, urinalysis
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	MO	Oxygen Titration	Resting and walking oxygen titrations
	MM	6 Minute Walk Test	6 minute walk
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	TM	Trail Making Test	Test
	ES	Exercise substudy	Only if in substudy
f27	AT	Reg Sched Telephone Contact	Interview
f30	AT	Reg Sched Telephone Contact	Interview
f33	AT	Reg Sched Telephone Contact	Interview
f36	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, urinalysis
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	RC	CT Scan Report	CT scan
	RR	Chest Radiograph Summary	Chest x-ray
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	TO	Alternate Trail Making Test	Test
	ES	Exercise substudy	Only if in substudy
f39	AT	Reg Sched Telephone Contact	Interview
f42	AT	Reg Sched Telephone Contact	Interview
f45	AT	Reg Sched Telephone Contact	Interview

Visit/ Phase	Form abbr	Form title	Procedures to be done (at NETT clinic)
f48	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, urinanalysis
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	TM	Trail Making Test	Test
	ES	Exercise substudy	Only if in substudy
	PM	Mechanics substudy	Only if in substudy
	HI only during 2003		
f51	AT	Reg Sched Telephone Contact	Interview
f54	AT	Reg Sched Telephone Contact	Interview
f57	AT	Reg Sched Telephone Contact	Interview
f60	PE	Physical Examination	Physical exam
	BU	Blood and Urine Analyses	Hematology, serum chem, urinanalysis
	HI	Interim History	Interview
	PF/PW	Pulmonary Function Summary	Spiro, lung vols, PI_{max}/PE_{max}, resting ABG, MVV
	EW	Exercise Test	Maximum exercise test
	QF	MOS SF-36	Questionnaire
	QG	St George's Respiratory Quest.	Questionnaire
	QS	Shortness-of-Breath Quest.	Questionnaire
	QW	Quality of Well-Being Scale	Questionnaire
	TO	Alternate Trail Making Test	Test
	ES	Exercise substudy	Only if in substudy

Note: Forms SH, SZ, and PW were worksheets and were not keyed forms.

NETT documents available from the National Technical Information Service

Title	Accession No.
National Emphysema Treatment Trial (NETT) Protocol (21 Jun 1999)	PB2001-102646
National Emphysema Treatment Trial (NETT) Manual of Operations, Part 1: Patient Procedures (29 Nov 2000)	PB2001-102647
National Emphysema Treatment Trial (NETT) Forms, Charts, and Flash Cards Book (13 Feb 2001)	PB2001-103545

NTIS Contact Information:
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
888-584-8332 (phone)
www.ntis.gov

NETT Publications (as of June 2008)

1.   **National Emphysema Treatment Trial Research Group**: Rationale and design of the National Emphysema Treatment Trial (NETT): A prospective randomized trial of lung volume reduction surgery. J Thorac Cardiovasc Surg, 118:518-28, **1999**.

      National Emphysema Treatment Trial Research Group: Rationale and design of the National Emphysema Treatment Trial (NETT): A prospective randomized trial of lung volume reduction surgery. Chest, 116:1750-61, **1999**.

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2.   **Ramsey S, Sullivan S, Kaplan R, Wood D, Chiang Y, Wagner J, for the NETT Research Group**: Economic analysis of lung volume reduction surgery as part of the National Emphysema Treatment Trial. Ann Thorac Surg; 71: 995-1002, **2001**.

3.   **National Emphysema Treatment Trial Research Group**: Patients at high risk of death after lung volume reduction surgery. N Engl J Med; 345:1075-83, **2001**.

      Fishman A, Naunheim K, Piantadosi S: Letter to the Editor, Surgery for Emphysema. N Engl J Med; 346: 861-2, **2002**.

4.   **Scharf SM, Iqbal M, Keller C, Criner G, Lee S, Fessler HE:** Hemodynamic characterization of patients with severe emphysema. Am J Respir Crit Med; 166:314-322, **2002**.

5.   **Mosenifar Z, Lee SM, Diaz P, Criner G, Sciurba F, Ginsburg M, Wise RA**: Single-breath diffusing capacity of the lung for carbon monoxide: A predictor of PAO2, maximum work rate, and walking distance in patients with emphysema. Chest; 123: 1394-1400, **2003**.

6   **National Emphysema Treatment Trial Research Group**: Cost effectiveness of lung-volume-reduction surgery for patients with severe emphysema. N Engl J Med; 348: 2092-2102, **2003**.

7.   **National Emphysema Treatment Trial Research Group**: A randomized trial comparing lung-volume-reduction surgery with medical therapy for severe emphysema. N Engl J Med; 348: 2059-73, **2003**.

8.   **Sciurba F, Criner GJ, Lee SM, Mohsenifar Z, Shade D, Slivka W, Wise RA**: Six-minute walk distance in chronic obstructive pulmonary disease: Reproducibility and effect of walking course layout and length. Am J Respir Crit Care Med; 167: 1522-27, **2003**.

9.   **Cohen RI, Marzouk K, Berkoski P, O'Donnell CP, Polotsky VY, Scharf SM:** Body composition and resting energy expenditure in clinically stable, non-weight-losing patients with severe emphysema. Chest; 124: 1365-1372, **2003**.

NETT Publications (as of June 2008) - cont'd

10.   **National Emphysema Treatment Trial Research Group:** Safety and efficacy of median sternotomy versus video-assisted thoracic surgery for lung volume reduction surgery. J Thorac Cardiovasc Surg; 127: 1350-60, **2004**.

11.   **Lee SM, Wise R, Sternberg AL, Tonascia J, and Piantadosi S, for the National Emphysema Treatment Trial Research Group:** Methodologic issues in terminating enrollment of a subgroup of patients in a multicenter randomized trial. Clinical Trials; 1: 326-338, **2004**.

12.   **Hogg JC, Chu F, Utokaparch S, Woods R, Elliott WM, Buzatu L, Cherniack RM, Rogers RM, Sciurba FC, Coxson HO, Paré PD:** The nature of small-airway obstruction in chronic obstructive pulmonary disease. N Engl J Med; 350: 2645-2653, **2004**.

13.   **Kaplan RM, Ries AL, Reilly J, Mohsenifar Z, for the National Emphysema Treatment Trial Research Group.** Measurement of health-related quality of life in the National Emphysema Treatment Trial. Chest; 126: 781-789, **2004**.

14.   **Celedon J et al.** The transforming growth factor-β1 (TGFB1) gene is associated with chronic obstructive pulmonary disease (COPD). Human Molecular Genetics; 13:1649-1656, **2004**.

15.   **Hersh CP, DeMeo DL, Lange C, Litonjua AA, Reilly JJ, Kwiatkowski D, Laird N, Sylvia JS, Sparrow D, Speizer FE, Weiss ST, Silverman EK.** Attempted replication of reported chronic obstructive pulmonary disease candidate gene associations. Am J Respir Cell Mol Biol; 33:71-78, **2005**.

16.   **Kelleher CM, Silverman EK, BroekelmannT, Litonjua AA, Hernandez M, Sylvia JS, Stoler J, Reilly JJ, Chapman HA, Speizer FE, Weiss ST, Mecham RP, Raby BA**: A functional mutation in the terminal exon of elastin in severe, early-onset chronic obstructive pulmonary disease. Am J Respir Cell Mol Biol; 33:355-362, **2005**.

17.   **Krachman SL, Chatila W, Martin UJ, Nugent T, Crocetti J, Gaughan J, Criner GJ for the National Emphysema Treatment Trial Research Group**. Effects of lung volume reduction surgery on sleep quality and nocturnal gas exchange in patients with severe emphysema. Chest; 128:3221-3228, **2005**.

18.   **Ries A et al for the National Emphysema Treatment Trial Research Group.** The effects of pulmonary rehabilitation in the National Emphysema Treatment Trial. Chest;128:3799-3809, **2005**.

19.   **Kozora E, Emery CF, Ellison MC, Wamboldt F, Diaz PT and Make B.** Improved neurobehavioral functioning in emphysema patients following lung volume reduction surgery compared to medical therapy. Chest;128:2653-2663, **2005**.

20.   **DeMeo DL et al.** The SERPINE2 gene is associated with chronic obstructive pulmonary disease. Am J Human Genet;78:253-264, **2006**.

21. **Naunheim KS et al for the National Emphysema Treatment Trial Research Group.** Predictors of operative mortality and cardiopulmonary morbidity in the National Emphysema Treatment Trial. J Thorac Cardiovasc Surg;131:43-53, **2006**.

22. **Hersh CP et al.** Genetic association analysis of functional impairment in chronic obstructive pulmonary disease. Am J Respir Crit Care Med;173:977-984, **2006**.

23. **Herpel LB, Kanner RE, Lee SM, Fessler HE, Sciurba FC, Connett JR, Wise RA for the Lung Health Study Research Group and the National Emphysema Treatment Trial Research Group.** Variability of spirometry in chronic obstructive pulmonary disease: Results from two clinical trials. Am J Respir Crit Care Med;173:1106-1113, **2006**.

24. **Martinez FJ et al for the National Emphysema Treatment Trial Research Group.** Predictors of mortality in patients with emphysema and severe airflow obstruction. Am J Respir Crit Care Med 173:1326-1334, **2006**.

25. **Chatila W et al for the National Emphysema Treatment Trial Research Group.** Advanced emphysema in African Americans compared with Caucasians: Do differences exist? Chest; 130:108-118, **2006**.

26. **DeCamp MM et al for the National Emphysema Treatment Trial Research Group.** Patient and surgical factors influencing air leak. Annals of Thoracic Surgery;82:197-207, **2006**.

27. **Naunheim K et al for the National Emphysema Treatment Trial Research Group.** Long-term follow-up of patients receiving LVRS versus medical therapy for severe emphysema. Annals of Thoracic Surgery 82:431-443, **2006**.

28. **Hersh CP et al.** Genetic linkage and association analysis of COPD-related traits on chromosome 8p. Journal of Chronic Obstructive Pulmonary Disease 3:189-194, **2006**.

29. **Stoller JK et al for the National Emphysema Treatment Trial Research Group.** Lung volume reduction surgery in patients with emphysema and α-1 antitrypsin deficiency. Ann Thorac Surg; 83:241-251, **2007**.

30. **Ramsey SD et al.** Updated evaluation of the cost-effectiveness of lung volume reduction surgery. Chest 131:823-832, **2007**.

31. **Fan VS et al.** Physiologic variables and functional status independently predict COPD hospitalizations and emergency department visits in patients with COPD. Journal of Chronic Obstructive Pulmonary Disease 4:29-39, **2007**.

32. **DeMeo DL et al.** Genetic determinants of emphysema distribution in the National Emphysema Treatment Trial. Am J Respir Crit Care Med 176:42-48, **2007**.

NETT Publications (as of June 2008) - cont'd

33. **Martinez FJ et al for the National Emphysema Treatment Trial Research Group.** Sex differences in severe pulmonary emphysema. Am J Respir Crit Care Med 176:243-252, **2007**.

34. **Criner GJ et al for the National Emphysema Treatment Trial Research Group.** Effect of lung volume reduction surgery on resting pulmonary hemodynamics in severe emphysema. Am J Respir Crit Care Med 176:253-260, **2007**.

35. **Hersh CP et al.** Xenobiotic metabolizing enzyme gene polymorphisms predict response to lung volume reduction surgery. Respiratory Research 8:59, **2007**.

36. **Fisher MR et al for the National Emphysema Treatment Trial Research Group.** Estimating pulmonary artery pressures by echocardiography in patients with emphysema. Eur Respir J 30:914-921, **2007**.

37. **Fan VS et al for the National Emphysema Treatment Trial Research Group.** Sex, depression, and risk of hospitalization and mortality in chronic obstructive pulmonary disease. Arch Intern Med 167:2345-2353, **2007**.

38. **Falk JA et al.** Lung elastic recoil does not correlate with pulmonary hemodynamics in severe emphysema. Chest 132:1476-1484, **2007**.

39. **Washko GR et al for the National Emphysema Treatment Trial Research Group.** The effect of lung volume reduction surgery on chronic obstructive pulmonary disease exacerbations. Am J Respir Crit Care Med 177:164-169, **2008**.

40. **Brown CD et al.** Exercise testing in severe emphysema: Association with quality of life and lung function. Journal of Chronic Obstructive Pulmonary Disease 5:117-124, **2008**.

41. **Fan VS et al for the National Emphysema Treatment Trial Research Group.** Costs of pulmonary rehabilitation and predictors of adherence in the National Emphysema Treatment Trial. Journal of Chronic Obstructive Pulmonary Disease 5:105-116, **2008**.

42. **Martinez FJ et al for the National Emphysema Treatment Trial Research Group.** Longitudinal change in the BODE index predicts mortality in severe emphysema. Am J Respir Crit Care Med (in press).

43. **Blough DK et al for the National Emphysema Treatment Trial Research Group**. The impact of using different imputation methods for missing quality of life scores on the estimation of the cost effectiveness of LVRS. Health Econ (in press)

44. **Drummond MB et al.** Continuous oxygen use in non-hypoxemic emphysema patients identifies a high-risk subset of patients: Retrospective analysis of the National Emphysema Treatment Trial. Chest (in press)

```
AA    -    Form AA  Core and Continued Rehabilitation Summary (rev 3)

Date file created:  12 May 2006
Observations:              1439
Variables:                   90

Variable                                                    Variable
  Name        Variable Label                    Type       Length      Format

aa309       9   Was satellite used for any sessions?   Char        1
aa311       #11 cnvrtd to #days from RZ/scr strt      Num         8
aa313       13  Number of days from item 12a to 12b   Char        2
aa314       14  Count in item 13 is 40-70?            Char        1
aa315       #15 cnvrtd to #days from RZ/scr strt      Num         8
aa320       #20 cnvrtd to #days from RZ/scr strt      Num         8
aa321       #21 cnvrtd to #days from RZ/scr strt      Num         8
aa322       #22 cnvrtd to #days from RZ/scr strt      Num         8
aa323       #23 cnvrtd to #days from RZ/scr strt      Num         8
aa324       #24 cnvrtd to #days from RZ/scr strt      Num         8
aa328       #28 cnvrtd to #days from RZ/scr strt      Num         8
aa329       29  Reason to declare patient ineligible  Char        1
aa307a      7a  Number of sessions at NETT clinic     Char        2
aa307b      7b  Number of sessions at satellite cent  Char        2
aa308a      8a  Number of sessions led by NETT staff  Char        2
aa308b      8b  Number of sessions led by satellite   Char        2
aa312a      #12a cnvrtd to #days from RZ/scr strt     Num         8
aa312b      #12b cnvrtd to #days from RZ/scr strt     Num         8
aa316a      #16a cnvrtd to #days from RZ/scr strt     Num         8
aa316b      #16b cnvrtd to #days from RZ/scr strt     Num         8
aa316c      #16c cnvrtd to #days from RZ/scr strt     Num         8
aa316d      #16d cnvrtd to #days from RZ/scr strt     Num         8
aa317a      #17a cnvrtd to #days from RZ/scr strt     Num         8
aa317b      #17b cnvrtd to #days from RZ/scr strt     Num         8
aa317c      #17c cnvrtd to #days from RZ/scr strt     Num         8
aa317d      #17d cnvrtd to #days from RZ/scr strt     Num         8
aa318a      #18a cnvrtd to #days from RZ/scr strt     Num         8
aa318b      #18b cnvrtd to #days from RZ/scr strt     Num         8
aa318c      #18c cnvrtd to #days from RZ/scr strt     Num         8
aa318d      #18d cnvrtd to #days from RZ/scr strt     Num         8
aa319a      #19a cnvrtd to #days from RZ/scr strt     Num         8
aa319b      #19b cnvrtd to #days from RZ/scr strt     Num         8
aa319c      #19c cnvrtd to #days from RZ/scr strt     Num         8
aa319d      #19d cnvrtd to #days from RZ/scr strt     Num         8
aa325a      25a Number of exercise sessions complete  Char        2
aa325b      25b At least 12 exercise sessions comple  Char        1
aa325c      #25c cnvrtd to #days from RZ/scr strt     Num         8
aa325d      #25d cnvrtd to #days from RZ/scr strt     Num         8
aa325e      #25e cnvrtd to #days from RZ/scr strt     Num         8
aa325f      #25f cnvrtd to #days from RZ/scr strt     Num         8
aa325g      #25g cnvrtd to #days from RZ/scr strt     Num         8
aa325h      #25h cnvrtd to #days from RZ/scr strt     Num         8
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aa325j      #25j cnvrtd to #days from RZ/scr strt     Num         8
aa325k      #25k cnvrtd to #days from RZ/scr strt     Num         8
aa325l      #25l cnvrtd to #days from RZ/scr strt     Num         8
aa325m      #25m cnvrtd to #days from RZ/scr strt     Num         8
aa325n      #25n cnvrtd to #days from RZ/scr strt     Num         8
aa325o      #25o cnvrtd to #days from RZ/scr strt     Num         8
aa325p      #25p cnvrtd to #days from RZ/scr strt     Num         8
aa325q      #25q cnvrtd to #days from RZ/scr strt     Num         8
aa325r      #25r cnvrtd to #days from RZ/scr strt     Num         8
aa326a      26a Number of pyschosocial sessions done  Char        2
aa326b      26b At least 12 pyschosocial sessions do   Char        1
aa326c      #26c cnvrtd to #days from RZ/scr strt     Num         8
aa326d      #26d cnvrtd to #days from RZ/scr strt     Num         8
aa326e      #26e cnvrtd to #days from RZ/scr strt     Num         8
aa326f      #26f cnvrtd to #days from RZ/scr strt     Num         8
```

```
AA    -    Form AA  Core and Continued Rehabilitation Summary (rev 3)

Date file created:  12 May 2006
Observations:              1439
Variables:                   90

Variable                                            Variable
  Name        Variable Label                 Type   Length    Format

aa326g      #26g cnvrtd to #days from RZ/scr strt   Num      8
aa326h      #26h cnvrtd to #days from RZ/scr strt   Num      8
aa326i      #26i cnvrtd to #days from RZ/scr strt   Num      8
aa326j      #26j cnvrtd to #days from RZ/scr strt   Num      8
aa326k      #26k cnvrtd to #days from RZ/scr strt   Num      8
aa326l      #26l cnvrtd to #days from RZ/scr strt   Num      8
aa326m      #26m cnvrtd to #days from RZ/scr strt   Num      8
aa326n      #26n cnvrtd to #days from RZ/scr strt   Num      8
aa326o      #26o cnvrtd to #days from RZ/scr strt   Num      8
aa326p      #26p cnvrtd to #days from RZ/scr strt   Num      8
aa326q      #26q cnvrtd to #days from RZ/scr strt   Num      8
aa326r      #26r cnvrtd to #days from RZ/scr strt   Num      8
aa327a      27a Emphysema education                 Char     1
aa327b      27b Medications education               Char     1
aa327c      27c Collaborative self-management educat Char     1
aa327d      27d Oxygen therapy education            Char     1
aa327e      27e Breathing training                  Char     1
aa327f      27f Secretion clearance and management   Char     1
aa327g      27g Stress management                   Char     1
aa327h      27h Nutrition education                 Char     1
aa327i      27i Travel and environmental issues     Char     1
aa327j      27j Sexuality and COPD                  Char     1
aa327k      27k Energy conservation and ADL         Char     1
aa327l      27l Advanced directives                 Char     1
aa327m      27m 1st other topic                     Char     1
aa327n      27n 2nd other topic                     Char     1
aa327o      27o 3rd other topic                     Char     1
aa327p      27p 4th other topic                     Char     1
form        Form abreviation and revision number    Char     4
formdate    #4 cnvrtd to #days from RZ/scr strt     Num      8
newnett     New NETT patient ID no.                 Char     5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char     3
```

Purpose: Record summary information related to patient's participation in the NETT pulmonary rehabilitation program from Core Rehabilitation through Continued Rehabilitation.

When: Visit s3.

Administered by: Rehabilitation Coordinator and Clinic Coordinator.

Respondent: None.

Instructions: Transcribe information from logs of the patient's attendance at education, counseling, and supervised exercise sessions; these logs should be kept by the clinic and any Rehabilitation Satellite Center which the patient attends for Core or Continued Rehabilitation.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____

4. Visit date *(date form initiated):*

_____ - _____ - _____
day   mon   year

5. Visit ID code: s   3   _____

6. Form & revision: a   a   3

B. General information about Core Rehab and Cont Rehab

7. Exercise session attendance in Core Rehab and Cont Rehab combined

a. How many exercise sessions led by NETT clinic rehabilitation staff did the patient attend *(these sessions may have been done at the NETT clinic or may have been led by NETT clinic staff at a satellite):*

_____ _____
sessions

b. How many exercise sessions led by satellite staff did the patient attend:

_____ _____
sessions

8. Education, counseling, and nutrition session attendance in Core Rehab and Cont Rehab combined

a. How many education, counseling, and nutrition sessions led by NETT clinic rehabilitation staff did the patient attend *(these sessions may have been done at the NETT clinic or may have been led by NETT clinic staff at a satellite):*

_____ _____
sessions

b. How many education, counseling, and nutrition sessions led by satellite staff did the patient attend:

_____ _____
sessions

9. Was a satellite or other NETT clinic used for any Cont Rehab sessions:

Yes (1)   No (2)
[12.] ◄

10. Name of satellite center as specified on Rehabilitation Satellite Certification (CS) Form or NETT clinic used as a satellite:

_____
name of satellite or other NETT clinic

11. Date of first Cont Rehab session at the satellite (or other NETT clinic):

_____ - _____ - _____
day   mon   year

12. Duration of Core and Cont Rehab

a. Date of initial Core Rehab session:

_____ - _____ - _____
day   mon   year

b. Date of last Cont Rehab session:

_____ - _____ - _____
day   mon   year

13. Number of days from date in item 12a
through date in item 12b *(count the date in item
12a as Day #1; count forward to the date in item
12b; record the number for the date in item 12b in
this item):*

___ ___

14. Is the number in item 13 at least 40 and
no greater than 70:

Yes (__₁)   No (*₂)

SKIP ⟵ ⌐

*(*Core and Cont Rehab must last at least 40 days
and no longer than 70 days. The patient is
ineligible for NETT. Complete this form but do not
key it; skip to Section H. Note the reason for
ineligibility on Form ER.)*

**C. Visit with NETT physician to review
results of screening**

15. Date of visit with NETT physician:

_____-_____-_____
day   mon   year

D. Core Rehab summary

16. Dates of lower extremity endurance
sessions:

a. Date 1:

_____-_____-_____
day   mon   year

b. Date 2:

_____-_____-_____
day   mon   year

c. Date 3:

_____-_____-_____
day   mon   year

d. Date 4:

_____-_____-_____
day   mon   year

17. Dates of upper extremity endurance
sessions:

a. Date 1:

_____-_____-_____
day   mon   year

b. Date 2:

_____-_____-_____
day   mon   year

c. Date 3:

_____-_____-_____
day   mon   year

d. Date 4:

_____-_____-_____
day   mon   year

18. Dates of flexibility sessions:

a. Date 1:

_____-_____-_____
day   mon   year

b. Date 2:

_____-_____-_____
day   mon   year

c. Date 3:

_____-_____-_____
day   mon   year

d. Date 4:

_____-_____-_____
day   mon   year

19. Dates of strength training sessions:

a. Date 1:

_____-_____-_____
day   mon   year

b. Date 2:

_____-_____-_____
day   mon   year

c. Date 3:

_____-_____-_____
day   mon   year

d. Date 4:

_____-_____-_____
day   mon   year

20. Date of pulmonary rehabilitation
education session:

_____ _____ - _____ _____ - _____ _____
day   mon   year

21. Date of medication plan education
session:

_____ _____ - _____ _____ - _____ _____
day   mon   year

22. Date of NETT education session:

_____ _____ - _____ _____ - _____ _____
day   mon   year

23. Date of oxygen use education session *(enter n if patient does not use oxygen and did not have this session):*

_____ _____ - _____ _____ - _____ _____
day   mon   year

24. Date of psychosocial counseling session:

_____ _____ - _____ _____ - _____ _____
day   mon   year

E. Cont Rehab exercise sessions

25. Exercise sessions

a. How many exercise sessions did the patient complete in Cont Rehab:

_____ _____
sessions.

b. Is item 25a at least 12:

(Yes $_1$)   (No $*_2$)

🛑 ←┘

(*At least 12 exercise sessions must be completed in Cont Rehab. Have the patient complete additional Cont Rehab sessions if time remains within the 70 day window. Otherwise, the patient is inelegible for NETT and you must skip to Section H and note the reason for ineligibility on Form ER.)

c. Date 1:

_____ _____ - _____ _____ - _____ _____
day   mon   year

d. Date 2:

_____ _____ - _____ _____ - _____ _____
day   mon   year

e. Date 3:

_____ _____ - _____ _____ - _____ _____
day   mon   year

f. Date 4:

_____ _____ - _____ _____ - _____ _____
day   mon   year

g. Date 5:

_____ _____ - _____ _____ - _____ _____
day   mon   year

h. Date 6:

_____ _____ - _____ _____ - _____ _____
day   mon   year

i. Date 7:

_____ _____ - _____ _____ - _____ _____
day   mon   year

j. Date 8:

_____ _____ - _____ _____ - _____ _____
day   mon   year

k. Date 9:

_____ _____ - _____ _____ - _____ _____
day   mon   year

l. Date 10:

_____ _____ - _____ _____ - _____ _____
day   mon   year

m. Date 11:

_____ _____ - _____ _____ - _____ _____
day   mon   year

n. Date 12:

_____ _____ - _____ _____ - _____ _____
day   mon   year

o. Date 13:

_____ _____ - _____ _____ - _____ _____
day   mon   year

p. Date 14:

_____ _____ - _____ _____ - _____ _____
day   mon   year

q. Date 15:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

r. Date 16:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

**F. Additional education/psychosocial sessions
in Core and Cont Rehab**

26. Additional education/psychosocial
sessions

  a. In addition to the required Core Rehab
education/psychosocial sessions
specified in items 20-24, how many
education/psychosocial sessions did
the patient complete in Core and/or
Cont Rehab:

_____ _____
sessions

  b. Is item 26a at least 12:

(Yes ₁)   (No * ₂)

SKIP

*(*At least 12 education/psychosocial sessions,
additional to the sessions in items 20-24 must be
completed in Core and/or Cont Rehab. If the
patient has not completed at least 12 additional
education/pyschosocial sessions, have the patient
complete additional education sessions if time
remains within the 70 day window. Otherwise, the
patient is ineligible for NETT and you must skip to
Section H and note the reason for ineligibility on
Form ER.)*

  c. Date 1:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

  d. Date 2:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

  e. Date 3:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

  f. Date 4:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

g. Date 5:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

h. Date 6:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

i. Date 7:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

j. Date 8:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

k. Date 9:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

l. Date 10:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

m. Date 11:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

n. Date 12:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

o. Date 13:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

p. Date 14:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

q. Date 15:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

r. Date 16:

_____ _____ - _____ _____ - _____ _____ _____ _____
day   mon   year

27. Topics of additional education/psychosocial sessions *(check all that patient attended)*

    a. Anatomy, physiology, pathophysiology of COPD and emphysema: (₁)

    b. Medications: (₁)

    c. Collaborative self-management: (₁)

    d. Oxygen therapy: (₁)

    e. Breathing training: (₁)

    f. Secretion clearance and management: (₁)

    g. Stress management: (₁)

    h. Nutrition: (₁)

    i. Travel and environmental issues: (₁)

    j. Sexuality and COPD: (₁)

    k. Energy conservation and ADL: (₁)

    l. Advanced directives: (₁)

    m. 1st other topic *(specify):*   (₁)

    _____
    specify

    n. 2nd other topic *(specify):*   (₁)

    _____
    specify

    o. 3rd other topic *(specify):*   (₁)

    _____
    specify

    p. 4th other topic *(specify):*   (₁)

    _____
    specify

28. Date of nutrition visit *(enter n if patient did not need this session):*

    ___ ___ - ___ ___ - ___ ___
    day   mon   year

G. Eligibility check

29. Is there any reason to declare the patient ineligible based on performance in Core Rehab and/or Cont Rehab:

    Yes (*₁)   No (₂)

    STOP ←⏎   30. ←⏎
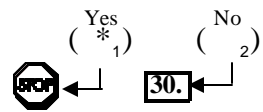
    _____
    specify reason for ineligibility

    *(*Complete this form but do not key it; note the reason for ineligibility on Form ER.)*

H. Administrative information

30. Rehabilitation Coordinator PIN: ___ ___ ___

31. Rehabilitation Coordinator signature:

    _____

32. Clinic Coordinator PIN: ___ ___ ___

33. Clinic Coordinator signature:

    _____

34. Date form reviewed:

    ___ ___ - ___ ___ - ___ ___
    day   mon   year

```
AB    -    Form AB  Post Randomization Rehabilitation Summary (rev 2)

Date file created:  12 May 2006
Observations:              1113
Variables:                   32

Variable                                              Variable
  Name        Variable Label                    Type   Length    Format

ab209       9   Satellite center used for rehab   Char       1
ab211       #11 cnvrtd to #days from RZ/scr strt  Char       7
ab212       #12 cnvrtd to #days from RZ/scr strt  Char       7
ab213       #13 cnvrtd to #days from RZ/scr strt  Char       7
ab207a      7a  No. of sessions at NETT clinic    Char       2
ab207b      7b  No. of exercise sessions at satellit  Char   2
ab208a      8a  No. of education sessions at NETT cl  Char    2
ab208b      8b  No. of education sessions at satelli  Char    2
ab214a      #14a cnvrtd to #days from RZ/scr strt  Char      7
ab214b      #14b cnvrtd to #days from RZ/scr strt  Char      7
ab215a      #15a cnvrtd to #days from RZ/scr strt  Char      7
ab215b      #15b cnvrtd to #days from RZ/scr strt  Char      7
ab216a      #16c cnvrtd to #days from RZ/scr strt  Char      7
ab216b      #16b cnvrtd to #days from RZ/scr strt  Char      7
ab217a      #17a cnvrtd to #days from RZ/scr strt  Char      7
ab217b      #17b cnvrtd to #days from RZ/scr strt  Char      7
ab218a      #18a cnvrtd to #days from RZ/scr strt  Char      7
ab218b      18b Date 1: type of session           Char       1
ab218c      #18c cnvrtd to #days from RZ/scr strt  Char      7
ab218d      18d Date 2: type of session           Char       1
ab219a      #19a cnvrtd to #days from RZ/scr strt  Char      7
ab219b      #19b cnvrtd to #days from RZ/scr strt  Char      7
ab219c      #19c cnvrtd to #days from RZ/scr strt  Char      7
ab219d      #19d cnvrtd to #days from RZ/scr strt  Char      7
ab219e      #19e cnvrtd to #days from RZ/scr strt  Char      7
ab219f      #19f cnvrtd to #days from RZ/scr strt  Char      7
ab219g      #19g cnvrtd to #days from RZ/scr strt  Char      7
ab219h      #19h cnvrtd to #days from RZ/scr strt  Char      7
form        Form abreviation and revision number   Char       4
formdate    item 4 cnvrtd to #days from RZ/scr strt  Num       8
newnett     New NETT patient ID no.                Char       5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char       3
```

Purpose: Record summary information related to the patient's participation in the NETT pulmonary rehabilitation program in the 8 weeks of Consolidation and Continued Consolidation Rehabilitation.

When: Use visit ID code rz; complete after patient completes post randomization rehabilitation.

Administered by: NETT clinic rehabilitation staff, Rehabilitation Coordinator, or Clinic Coordinator.

Respondent: None.

Instructions: Transcribe information from the logs of exercise and education/counseling sessions completed for the patient by the NETT clinic and any Rehabilitation Satellite Center which the patient attended. Ideally, the patient will complete post randomization rehabilitation as specified by protocol (2 days of Consolidation Rehabilitation followed by 8 weeks of Continued Consolidation Rehabilitation, 1 session per week). Report sessions as they occur regardless of whether the timing goes according to protocol. If the patient has not completed all Consolidation and Continued Consolidation Rehabilitation sessions by the close of the patient's f06 visit window, complete this form reporting the Consolidation or Continued Rehabilitation sessions completed. Put m's in for sessions not done. Report prescription of extra rehabilitation sessions on the Unusual Event (UE) form. If the patient did not complete **any** Consolidation or Continued Consolidation Rehabilitation sessions, do not complete this form; complete the Unusual Event (UE) form instead.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____ _____

4. Visit date *(date form initiated)*:

_____ _____ - _____ _____ - _____ _____
day   mon   year

5. Visit ID code: r z _____

6. Form & revision: a b 2

B. General information for Consolidation and Continued Consolidation Rehabilitation

7. Exercise session attendance in Consolidation and Continued Consolidation Rehabilitation combined

a. How many exercise sessions led by NETT clinic rehabilitation staff did the patient attend *(these sessions may have been done at the NETT clinic or may have been led by NETT clinic staff at a satellite)*:

_____ _____
sessions

b. How many exercise sessions led by satellite staff did the patient attend:

_____ _____
sessions

8. Education, counseling, and nutrition session attendance in Consolidation and Continued Consolidation Rehabilitation combined

a. How many education, counseling, and nutrition sessions led by NETT clinic rehabilitation staff did the patient attend *(these sessions may have been done at the NETT clinic or may have been led by NETT clinic staff at a satellite)*:

_____ _____
sessions

b. How many education, counseling, and nutrition sessions led by satellite staff did the patient attend:

_____ _____
sessions

9. Was a satellite or other NETT clinic used for any Continued Consolidation Rehabilitation sessions:

Yes (1)   No (2)
11. ◄

10. Name of satellite center as specified on Rehabilitation Satellite Certification (CS) Form or other NETT clinic used as a satellite:

_____
satellite name or other NETT clinic

11. Date of initial Consolidation Rehabilitation session:

_____ _____ - _____ _____ - _____ _____
day   mon   year

12. Date of last Continued Consolidation
Rehabilitation session:

_____ - _____ - _____
day   mon   year

C. Consolidation Rehabilitation summary

13. Date of visit with NETT clinic physician:

_____ - _____ - _____
day   mon   year

14. Dates of upper extremity exercise
sessions:

    a. 1st session:

_____ - _____ - _____
day   mon   year

    b. 2nd session:

_____ - _____ - _____
day   mon   year

15. Dates of lower extremity exercise
sessions:

    a. 1st session:

_____ - _____ - _____
day   mon   year

    b. 2nd session:

_____ - _____ - _____
day   mon   year

16. Dates of flexibility exercise sessions:

    a. 1st session:

_____ - _____ - _____
day   mon   year

    b. 2nd session:

_____ - _____ - _____
day   mon   year

17. Dates of strengthening exercise sessions:

    a. 1st session:

_____ - _____ - _____
day   mon   year

    b. 2nd session:

_____ - _____ - _____
day   mon   year

18. Dates of required education/counseling
sessions:

    a. 1st session:

_____ - _____ - _____
day   mon   year

    b. Type of session *(check only one):*

      Skill/education   ($_1$)
      Counseling   ($_2$)

    c. 2nd session:

_____ - _____ - _____
day   mon   year

    d. Type of session *(check only one):*

      Skill/education   ($_1$)
      Counseling   ($_2$)

D. Continued Consolidation Rehabilitation summary

19. Dates of supervised exercise sessions *(patient should have 1 supervised session per week for 8 weeks; if the patient's sessions do not occur on a weekly schedule, fill in the dates of sessions as they occur):*

    a. Week 1:

_____ - _____ - _____
day   mon   year

    b. Week 2:

_____ - _____ - _____
day   mon   year

    c. Week 3:

_____ - _____ - _____
day   mon   year

    d. Week 4:

_____ - _____ - _____
day   mon   year

    e. Week 5:

_____ - _____ - _____
day   mon   year

    f. Week 6:

_____ - _____ - _____
day   mon   year

    g. Week 7:

_____ - _____ - _____
day   mon   year

    h. Week 8:

_____ - _____ - _____
day   mon   year

E. Administrative information

20. Rehabilitation Coordinator PIN: ___ ___ ___

21. Rehabilitation Coordinator signature:

_____

22. Clinic Coordinator PIN: ___ ___ ___

23. Clinic Coordinator signature:

_____

24. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
AT    -    Form AT  Regularly Scheduled Telephone Contact (rev 3)

Date file created: 12 May 2006
Observations:              11068
Variables:                    37

Variable                                              Variable
  Name        Variable Label                  Type    Length    Format

at307      7   Current residence               Char       1
at308      8   Spoke with patient              Char       1
at316     16   No. overnight hospital stays in past   Char   2
at317     17   No. overnights in rehab hosp in past   Char   2
at318     18   No. ER visits in past month     Char       2
at319     19   No. visits to MD in past month  Char       2
at320     20   No. visits at home by health profess   Char   2
at321     21   No. visits at home by health care wo   Char   2
at322     22   No. visits at home by health equipme   Char   2
at323     23   Other visits with health care worker   Char   1
at324     24   Illness caused family to restrict ac   Char   1
at325     25   No. hrs family cared for patient in    Char   3
at312a    12a  Any endurance exercise past 7 days     Char   1
at312b    12b  Number of times exercised in past we   Char   2
at312c    12c  Length of exercise session (min)       Char   2
at313a    13a  Any flexibility exercise past 7 days   Char   1
at313b    13b  Times did flexibility exercise past    Char   2
at314a    14a  Upper extremity exercise in past 7 d   Char   1
at314b    14b  Times did upper extrem exercise past   Char   2
at315a    15a  Strength exercise in past 7 days       Char   1
at315b    15b  Times did strength exercise in past    Char   2
at326a    26a  Spoke with patient              Char       1
at326b    26b  Spoke with spouse               Char       1
at326c    26c  Spoke with other family member  Char       1
at326d    26d  Spoke with caregiver (non-family)      Char   1
at326e    26e  Spoke with staff at institution Char       1
at326f    26f  Spoke with other                Char       1
at326g    26g  Spoke with no one about patient Char       1
at327a    27a  Patient too sick                Char       1
at327b    27b  Patient refused                 Char       1
at327c    27c  Patient temporarily away        Char       1
at327d    27d  Missed time window              Char       1
at327e    27e  Other                           Char       1
form          Form abreviation and revision number   Char   4
formdate      item 4 cnvrtd to #days from RZ/scr strt Num    8
newnett       New NETT patient ID no.         Char       5
visit         s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char   3
```

Regularly Scheduled Telephone Contact

Purpose: To record information about regularly scheduled post randomization followup telephone contacts.

When: Visits f01, f02, f04, f08, f10, f15, f18, f21, f27, f30, f33, f39, f42, f45, f51, f54, and f57.

Administered by: NETT clinic rehabilitation staff, Rehabilitation Coordinator or Clinic Coordinator.

Respondent: Patient.

Instructions: Use this form to report the status of followup telephone contacts at the scheduled contact times. Complete this form whether or not you speak with the patient. If you could not locate the patient or anyone knowledgeable about the patient's whereabouts or if you did not try to contact the patient during the time window for the contact, enter the last permissable date in the time window for the contact in item 4. Specify residence in item 7 only if you know the patient's whereabouts during the time window for the contact.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date of telephone contact; date window closed if contact was missed)*:

   ___ ___ - ___ ___ - ___ ___
   day   mon   year

5. Visit ID code: f ___ ___

6. Form & revision: a t 3

B. Current residence of patient

7. Patient's current residence *(check only one)*:

   Private home, apartment, or condominium (1)
   Retirement home (2)
   Nursing home (3)
   Rehabilitation facility (4)
   Acute care hospital (5)
   Other *(specify)*: (6)

   _____

   Could not locate patient or anyone with
   knowledge of patient's whereabouts (7)
   32. ⬅

8. Were you able to speak with the patient within the time window for the telephone contact:

   (Yes 1)   (No 2)
   26. ⬅

C. General interview *(ask these questions and record the responses in general, but do not key items 9-11)*

9. How are you doing:

   _____
   _____
   _____
   _____
   _____

10. Do you have any problems:

    (Yes)   (No)

11. Suggested plan:

    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

D. Exercise interview

12. Lower extremity endurance exercise

   a. In the 7 days prior to this phone call did you do any lower extremity endurance exercise (such as walking or cycling):

   Yes ($_1$)   No ($_2$)

   13. ◄——┘

   b. On how many days did you do lower extremity endurance exercise:

   ___ ___
   # days

   c. On average, how many minutes long was your lower extremity endurance exercise session:

   ___ ___
   # min

13. Flexibility (stretching) exercise

   a. In the 7 days prior to this phone call did you do any flexibility (stretching) exercise:

   Yes ($_1$)   No ($_2$)

   14. ◄——┘

   b. On how many days did you do flexibility (stretching) exercise:

   ___ ___
   # days

14. Upper extremity endurance exercise

   a. In the 7 days prior to this phone call did you do any upper extremity endurance exercise:

   Yes ($_1$)   No ($_2$)

   15. ◄——┘

   b. On how many days did you do upper extremity endurance exercise:

   ___ ___
   # days

15. Strength training exercise

   a. In the 7 days prior to this phone call did you do any strength training exercise (such as therabands, free weights):

   Yes ($_1$)   No ($_2$)

   16. ◄——┘

   b. On how many days did you do strength training exercise:

   ___ ___
   # days

E. Healthcare utilization interview *(these questions relate to all medical care, not just care for emphysema)*

16. In the past month, how many nights have you stayed overnight in a hospital or other acute care facility *(include nights for NETT LVRS):*

   ___ ___
   # nights

17. In the past month, how many nights have you stayed overnight in a rehabilitation hospital, nursing home, or other nonacute care facility:

   ___ ___
   # nights.

18. In the past month, how many times have you been seen at an emergency room (department), triage area, or urgent care facility:

   ___ ___
   # times

19. In the past month, how many times have you visited a physician, physician's assistant, or nurse in their office or have you visited an outpatient clinic for any reason *(exclude hospital stays, visits to nonacute care facilities, and emergency room, triage area or urgent care area visits; exclude NETT screening, followup, and rehab visits; by followup visits, we mean the regularly scheduled NETT in person followup visits, eg, f06, f12, f24, etc):*

   ___ ___
   # times

20. In the past month, how many times has a health care professional (eg, home health agency nurse, physical therapist, occupational therapist) visited you in your residence:

__ __
times.

21. In the past month, how many times has a health care service worker (eg, aide, attendant) come to your residence for health reasons:

__ __
times.

22. In the past month, how many times has a health equipment technician or respiratory therapist come to your residence to adjust, service, or care for some item of health care equipment used by you:

__ __
times.

23. In the past month, did you have any other visits with health care workers other than those just mentioned *(exclude NETT screening, followup, and rehab visits; by followup visits, we mean the regularly scheduled NETT in person followup visits, eg, f06, f12, f24, etc.):*

Yes $(\ _1)$ No $(\ _2)$

24. ◄┘

If yes, please describe:

_____

_____

_____

24. In the past month, has your illness required any family members or friends to restrict their work or social activities *(include efforts to help you participate in NETT):*

Yes $(\ _1)$ No $(\ _2)$

25. About how many hours in the past week have family members or friends spent in helping with your care *(include efforts to help you participate in NETT):*

__ __
hours.

F. Other contacts about patient

26. With whom did you speak when trying to complete the interview with the patient *(check "patient" if you were able to interview the patient within the time window for the telephone contact; otherwise check all that apply)*

a. Patient: $(\ _1)$

30. ◄┘

b. Spouse: $(\ _1)$

c. Other family member: $(\ _1)$

d. Caregiver (non family): $(\ _1)$

e. Staff at institution where patient is staying: $(\ _1)$

f. Other *(specify):* $(\ _1)$

_____

g. Did not speak with anyone about patient within the time window: $(\ _1)$

27. Why weren't you able to speak to the patient *(check all that apply)*

a. Patient too sick: $(\ _1)$

b. Patient refused: $(\ _1)$

c. Patient temporarily away: $(\ _1)$

d. Missed time window: $(\ _1)$

e. Other *(specify):* $(\ _1)$

_____

28. What is the patient's situation:

_____

_____

_____

29. When might the patient be available for interview:

_____

_____

_____

G. Next telephone contact

30. Was the next telephone contact
scheduled:

(Yes
1)   (No
2)

32. ←

31. Date and time of next telephone contact

a. Date:

____ - ____ - ____
day   mon   year

b. Time:

____ : ____   (1)   (2)
hour minute   am   pm

H. Administrative information

32. Interviewer name *(please print):*

_____

33. Interviewer signature:

_____

34. Clinic Coordinator PIN: ___ ___ ___

35. Clinic Coordinator signature:

_____

36. Date form reviewed:

____ - ____ - ____
day   mon   year

```
BU    -     Form BU  Blood and Urine Analysis (rev 2)

Date file created:  13 May 2006
Observations:              5340
Variables:                   31

Variable                                          Variable
  Name      Variable Label                   Type  Length   Format

a1atconc    Concentration level (mg/dL)      Num      8
a1atptyp    Phenotype                        Char     4
bu207       7   Blood collected for hematology Char   1
bu208       #8 cnvrtd to # of days frm RZ/scr strt Num 8
bu211       11  Blood collected for plasma cotinine Char 1
bu212       #12 cnvrtd to # days frm RZ/scr strt Num 8
bu213       13  Plasma cotinine (ng/ml)      Char     3
bu214       14  Blood collected for A1AT testing Char 1
bu215       #15 cnvrtd to # of days frm RZ/scr strt Num 8
bu218       18  Urine collected for analysis Char     1
bu219       #19 cnvrtd to # of days frm RZ/scr strt Num 8
bu221       21  s1 or s3 visit?              Char     1
bu222       22  Patient ineligible--blood/urine Char  1
bu209a      9a  WBC                          Char     3
bu209b      9b  Hemoglobin (g/dL)            Char     3
bu209c      9c  Platelets (10**9/L)          Char     4
bu210a      10a Creatinine                   Char     1
bu210b      10b Total protein                Char     1
bu210c      10c Albumin                      Char     1
bu210d      10d Glucose                      Char     1
bu210e      10e AST (SGOT)                   Char     1
bu210f      10f Alk phos                     Char     1
bu210g      10g Total bilirubin              Char     1
bu220a      20a Glucose                      Char     1
bu220b      20b Protein                      Char     1
bu220c      20c pH                           Char     3
bu220d      20d Specific gravity             Char     4
form        Form abreviation and revision number Char 4
formdate    #4 cnvrtd to No. of days from RZ Num      8
newnett     New NETT patient ID no.          Char     5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char 3
```

Purpose: To record results of blood and urine analyses.

When: Visits s1, s3, f12, f24, f36, f48, and f60.

Administered by: Study Physician and Clinic Coordinator.

Respondent: None.

Instructions: Hematology, serum chemistry, plasma cotinine (if patient is not using nicotine), and urinalysis results should be obtained at s1 before clearing the patient for beginning Core Rehabilitation. Plasma cotinine should be repeated at s3 (if patient is not using nicotine). Alpha-1 antitrypsin deficiency testing is done at s1 only. Hematology, serum chemistry and urinalysis should be completed at f12, f24, f36, f48, and f60. All relevant lab reports should be marked with the patient's ID number and name code and stapled to the back of this form. If your lab reports values electronically, print a copy of the report, mark it with the patient's ID number and name code, and staple it to the back of this form. If the patient is found to be ineligible, complete this form but do not key it. The reason for the ineligibility will be noted on Form EH or Form ER.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____

4. Visit date *(date form is initiated):*

_____ - _____ - _____
day   mon   year

5. Visit ID code: _____ _____ _____

6. Form & revision: b u 2

B. Blood and urine analyses

7. Was blood collected for hematology and serum chemistry *(s1, f12, f24, f36, f48, f60 visits):*

Yes ($_1$)   No ($_2$)
11. ◄

8. Date of blood collection:

_____ - _____ - _____
day   mon   year

9. Hematology results:

a. WBC: _____ _____ • _____
10^9/L or 10^3/μL or 10^3/mm^3

b. Hemoglobin: _____ _____ • _____
g/dL

c. Platelets: _____ _____ • _____
10^9/L or 10^3/μL or 10^3/mm^3

10. Serum chemistry results:

	Normal	Abnormal
a. Creatinine:	($_1$)	($_2$)
b. Total protein:	($_1$)	($_2$)
c. Albumin:	($_1$)	($_2$)
d. Glucose:	($_1$)	($_2$)
e. AST (SGOT):	($_1$)	($_2$)
f. Alk phos:	($_1$)	($_2$)
g. Total bilirubin:	($_1$)	($_2$)

11. Was blood collected for plasma cotinine analysis *(s1 and s3 visits, only for patients not using nicotine):*

Yes ($_1$)   No ($_2$)
14. ◄

12. Date of blood collection:

_____ - _____ - _____
day   mon   year

13. Reported plasma cotinine:

(Note: Code 00.0 if lab reports ''negative'' or "none detected''; if plasma cotinine is greater than 13.7 ng/ml and patient is not using nicotine, the patient is ineligible for NETT.)

_____ _____ • _____ _____
ng/ml

14. Was blood collected for alpha-1 antitrypsin deficiency testing *(s1 visit only):*

Yes ($_1$)   No ($_2$)
18. ◄

15. Date of blood collection:

___ ___ - ___ ___ - ___ ___
day   mon   year

16. Concentration:

    a. Level: ___ ___ ___ • ___ ___ ___

    b. Units:

        mg/dL   (1)

        mg/ml   (2)

        μM   (3)

17. Phenotype *(check only one)*

        ZZ   (1)

        MZ   (2)

        MM   (3)

        SS   (4)

        SZ   (5)

        Null   (6)

        Other *(specify):*   (7)

_____
specify phenotype

18. Was urine collected for analysis *(s1, f12, f24, f36, f48, f60 visits):*

Yes (1)   No (2)
                   21. ◄

19. Date of urine collection:

___ ___ - ___ ___ - ___ ___
day   mon   year

20. Urinalysis results:

	Normal	Abnormal
a. Glucose:	(1)	(2)
b. Protein:	(1)	(2)

    c. pH: ___ ___ • ___

    d. Specific gravity: ___ • ___ ___ ___

C. Check on eligibility

21. Is this the s1 or s3 visit:

Yes (1)   No (2)
                   23. ◄

22. Do any of the blood or urine analyses cause you to declare the patient ineligible for NETT:

Yes (*1)   No (2)
STOP ◄   **23.** ◄

If yes, specify reason:

_____
specify reason

(*Complete this form but do not key it; note the reason for ineligibility on Form EH or Form ER.)

C. Administrative information

23. Study Physician PIN: ___ ___ ___

24. Study Physician signature:

_____

25. Clinic Coordinator PIN: ___ ___ ___

26. Clinic Coordinator signature:

_____

27. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
DR    -    Form DR  Death Report Form (rev 2)

Date file created:  13 May 2006
Observations:                536
Variables:                    14

Variable                                        Variable
  Name       Variable Label                Type   Length    Format

dr207      #7 cnvrtd to No. of days frm RZ/scr strt   Char      7
dr208a     8a Patient's family                        Char      1
dr208b     8b Friend                                  Char      1
dr208c     8c Health care provider or NETT staff      Char      1
dr208d     8d Newspaper                               Char      1
dr208e     8d Funeral parlor/home                     Char      1
dr208f     8f Medical record                          Char      1
dr208g     8g Medical examiner                        Char      1
dr208h     8h Coroner                                 Char      1
dr208i     8i Other                                   Char      1
form       Form abreviation and revision number       Char      4
formdate   #4 cnvrtd to No. of days frm RZ/scr strt   Num       8
newnett    New NETT patient ID no.                    Char      5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ      Char      3
```

Purpose: To record the report of a patient's death.

When: As soon as clinic is notified of a patient's death.

Administered by: Clinic Coordinator.

Respondent: None.

Instructions: Complete this form whenever the clinic is informed of a patient's death. After completing this form request the death certificate from the State Vital Records office. Do not request the certificate from the patient's family. When this form is added to the database, a report will print after the second keying. Fax the report to the Coordinating Center. If date of death is edited subsequently, a revised report will print and that report should also be faxed to the Coordinating Center.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: n ___ ___

6. Form & revision: d r 2

B. Death information

7. Date of death:

___ ___ - ___ ___ - ___ ___
day   mon   year

8. Source of death report *(check all that apply):*

  a. Patient's family: ($_1$)

  b. Friend: ($_1$)

  c. Health care provider or NETT staff: ($_1$)

  d. Newspaper: ($_1$)

  e. Funeral parlor/home: ($_1$)

  f. Medical record: ($_1$)

  g. Medical examiner: ($_1$)

  h. Coroner: ($_1$)

  i. Other *(specify):* ($_1$)

_____
other source

9. Place of death:

_____
city/state/province/country

C. Administrative information

10. Clinic Coordinator PIN: ___ ___ ___

11. Clinic Coordinator signature:

_____

12. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

NOTE: If a report prints upon completion of keying, fax the report to the Coordinating Center.

```
EB    -    Form EB  Brief Screen for Eligibility (rev 2)

Date file created:  13 May 2006
Observations:            3775
Variables:                 52

Variable                                          Variable
  Name        Variable Label                Type   Length    Format

eb207       7   Patient suitable for the trial    Char     1
eb208       8   Consent form signed?              Char     1
eb210       #10: age<=51=00, age>=80=99          Char     2
eb211       11  Gender                            Char     1
eb213       13  Retired or disabled?              Char     1
eb214       #14: retirement age <=40 coded as 00  Char     2
eb216       16  Reason for retiring               Char     1
eb217       17  Currently disabled                Char     1
eb218       18  Disabled due to emphysema?        Char     1
eb220       20  Currently employed                Char     1
eb222       22  Hours per week at work            Char     2
eb223       23  Occupational group                Char     1
eb224       24  Marital status                    Char     1
eb225       25  Educational level                 Char     1
eb226       26  Economic status                   Char     1
eb230       30  Participated in pulm rehab program Char    1
eb232       32  Duration of program (weeks)       Char     3
eb233       33  Ever smoked cigarettes            Char     1
eb234       34  Smoked cigarettes in past 120 days Char    1
eb235       35  Smoked cigarettes regularly       Char     1
eb236       36  Age started smoking regularly     Char     2
eb237       37  Age stopped smoking (years)       Char     2
eb238       38  Avg no. cigarettes/day smoked     Char     3
eb239       39  Inhaled the cigarette smoke       Char     1
eb240       40  Ever smoked cigars/cigarillos     Char     1
eb241       41  Smoked cigars in past 120 days    Char     1
eb242       42  Smoked cigars regularly           Char     1
eb243       43  Age started smoking cigars        Char     2
eb244       44  Age stopped smoking cigars        Char     2
eb245       45  Avg no cigars smoked per day      Char     3
eb246       46  Inhaled the cigar smoke           Char     1
eb247       47  Ever smoked a pipe                Char     1
eb248       48  Smoked a pipe in past 120 days    Char     1
eb249       49  Smoked a pipe regularly           Char     1
eb250       50  Age started smoking a pipe        Char     2
eb251       51  Age stopped smoking a pipe        Char     2
eb252       52  Avg no oz smoked per week         Char     3
eb253       53  Inhaled the pipe smoke            Char     1
eb254       54  Currently use nicotine products   Char     1
eb259       59  BMI (kg/m**2)                     Char     3
eb229a      29a Staff at the center               Char     1
eb229b      29b Mailing from this center          Char     1
eb229c      29c Staff at another center           Char     1
eb229d      29d Newspaper                         Char     1
eb229e      29e Radio                             Char     1
eb229f      29f Television                        Char     1
eb229g      29g Friend                            Char     1
eb229h      29h Other                             Char     1
form        Form abreviation and revision number  Char     4
formdate    #4 cnvrtd to #days frm RZ/scr strt    Num      8
newnett     New NETT patient ID no.               Char     5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char    3
```

Purpose: To assign Patient ID number and obtain consent for diagnostic testing and entry into registry.

When: Visit s1.

Administered by: Study Physician (pulmonary physician or thoracic surgeon) and Clinic Coordinator.

Respondent: Patient and Clinic Coordinator.

Instructions: This form may be started after the study physician has reviewed the materials from the referring physician (eg, spirometry, chest x-ray, EKG, history) and has concluded that the patient's history is consistent with emphysema and that the patient may be suitable for NETT or when the patient arrives for the initial visit. If a STOP condition is checked, do not complete the remainder of this form and do not assign an ID number; the patient is ineligible for NETT. File the partially completed form in the file for ineligible patients. If the patient remains eligible after completion of the form and the patient has signed the Consent for Screening and Patient Registry, proceed with diagnostic testing. A report will print when this form is keyed to the database or subsequently is edited. A page of lung function predicted values for the patient will also print. Fax the report to the Coordinating Center.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: __s__ __1__ ___

6. Form & revision: __e__ __b__ __2__

B. Consent

7. After reviewing the existing records (spirometry, chest x-ray, EKG, and/or history) does the study physician feel that the patient may be suitable for the trial:

Yes (₁)   No (₂) STOP ⌐

8. Has the patient signed the Consent for Screening and Patient Registry:

Yes (₁)   No (₂) STOP ⌐

C. Information about patient

9. Date of birth:

___ ___ - ___ ___ - ___ ___
day   mon   year

10. Age at last birthday: ___ ___
years

11. Gender:

Male   (₁)
Female   (₂)

12. Racial/ethnic group *(show patient Flash Card #1; check only one):*

White (not Hispanic)   (₁)
African American (not Hispanic)   (₂)
Hispanic   (₃)
Asian or Pacific Islander   (₄)
American Indian or Alaskan Native (₅)
Other *(specify)*   (₆)

_____
specify

13. Are you retired:

Yes (₁)   No (₂)
[17.] ⌐

14. At what age did you retire: ___ ___

15. What was your occupation at retirement:

_____
specify occupation

16. What was your main reason for retiring *(show respondent Flash Card #2; check only one):*

Eligible to retire due to age or length of employment (₁)

Disability due to illness (₂)

Other *(specify)* (₃)

_____
specify

17. Are you currently disabled:

Yes (₁)   No (₂)

[20.]

18. Is your disability due to emphysema:

Yes (₁)   No (₂)

19. What was your occupation before you became disabled:

_____
specify occupation

20. Are you currently employed:

Yes (₁)   No (₂)

[23.]

21. What is your current occupation:

_____
specify occupation

22. About how many hours do you work each week: ___ ___
hours

23. Which of the following occupational groups best characterizes your occupational history *(show respondent Flash Card #3; check only one):*

Laborer (₁)

Clerical (₂)

Professional (₃)

Homemaker (₄)

Other *(specify):* (₅)

_____
specify

24. Marital status *(show respondent Flash Card #4; check only one):*

Single, never married (₁)

Separated (₂)

Divorced or annulled (₃)

Widowed (₄)

Married (₅)

25. Highest educational level achieved *(show respondent Flash Card #5; check only one):*

Did not complete high school (₁)

Completed high school (₂)

Some college or post high school education or training (₃)

Bachelor's degree or higher (₄)

26. To help us characterize the economic status of our study population, please indicate which category best describes the combined annual income before taxes, of all members of your household for last year *(show respondent Flash Card #6; check only one):*

Less than $15,000 (₁)

$15,000 - $29,999 (₂)

$30,000 - $49,999 (₃)

$50,000 or more (₄)

27. What best describes your current
residence *(show respondent Flash Card #7;
check only one):*

Private home, apartment, or condominium	(1)
Retirement home	(2)
Nursing home	(3)
Rehabilitation facility	(4)
Acute care hospital	(5)
Other *(specify)*	(6)

_____
specify

28. What is your current zipcode:

____ ____ ____ ____ ____

29. How did you find out about the NETT *(check all
that apply):*

a. Staff at this center	(1)
b. Mailing from this center	(1)
c. Staff at another medical center or office	(1)
d. Newspaper	(1)
e. Radio	(1)
f. Television	(1)
g. Friend	(1)
h. Other *(specify)*	(1)

_____
specify

30. Have you ever participated in a
pulmonary rehabilitation program:

Yes (1)   No (2)
33.⌐

31. Month and year you started the program *(guess if
uncertain)*

a. Month: ____ ____

b. Year: ____ ____

32. Duration of supervised portion
of program *(guess if uncertain):* ____ ____ ____
weeks

D. Tobacco smoking history (ATS-DLD)

33. Have you ever smoked cigarettes:

Never	(1)

40.⌐

In the past but not any more	(2)
Currently smoke cigarettes	(3)

(STOP)⌐
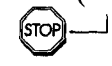
34. Have you smoked any cigarettes in the
past 4 months:
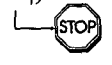
Yes (1)   No (2)
⌐(STOP)

35. Did you smoke cigarettes regularly
*("No" means less than 20 packs of cigarettes or
12 oz of tobacco in a lifetime or less than 1 ciga-
rette a day for one year):*

Yes (1)   No (2)
40.⌐

36. How old were you when you first started
regular cigarette smoking:

____ ____
years

37. How old were you when you (last)
stopped smoking cigarettes: ____ ____
years

38. On the average of the entire time you
smoked cigarettes, how many cigarettes
did you smoke per day:

____ ____ ____
cigarettes/day

39. Did you inhale the cigarette smoke:

Not at all	(1)
Slightly	(2)
Moderately	(3)
Deeply	(4)

40. Have you ever smoked cigars or
cigarillos:

Never	(1)

47.⌐

In the past but not any more	(2)
Currently smoke cigars or cigarillos	(3)

(STOP)⌐
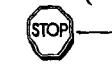
41. Have you smoked any cigars or cigarillos in the past 4 months:

(Yes 1)   (No 2)
[STOP]

42. Did you smoke cigars or cigarillos regularly *("Yes" means more than 1 cigar a week for a year):*

(Yes 1)   (No 2)
[47.]

43. How old were you when you first started regular cigar or cigarillo smoking:

___ ___ years

44. How old were you when you (last) stopped smoking cigars or cigarillos:

___ ___ years

45. On the average of the entire time you smoked cigars or cigarillos, how many cigars or cigarillos did you smoke per day:

___ ___ ___ cigars/cigarillos/day

46. Did you inhale the cigar/cigarillo smoke:

Not at all	(1)
Slightly	(2)
Moderately	(3)
Deeply	(4)

47. Have you ever smoked a pipe:

Never	(1) [54.]
In the past but not any more	(2)
Currently smoke a pipe	(3) [STOP]

48. Have you smoked a pipe in the last 4 months:

(Yes 1)   (No 2)
[STOP]

49. Did you smoke a pipe regularly *(Yes means more than 12 oz tobacco in a lifetime):*

(Yes 1)   (No 2)
[54.]

50. How old were you when you first started to smoke a pipe regularly:

___ ___ years

51. How old were you when you (last) stopped smoking a pipe:

___ ___ years

52. On the average of the entire time you smoked a pipe, how much pipe tobacco did you smoke per week *(a standard pouch of tobacco contains 1 1/2 oz):*

___ ___ ___ • ___ oz/week

53. Did you inhale the pipe smoke:

Not at all	(1)
Slightly	(2)
Moderately	(3)
Deeply	(4)

54. Are you currently using nicotine products (eg, gum, patch):

(Yes 1)   (No 2)

E. Measurements

55. Units of height measurement performed:

Inches	(1)
Centimeters	(2) [56b.]

56. Height

a. Height in inches:

___ ___ • ___ in

b. Height in centimeters *(measured directly or item 56a * 2.54):*

___ ___ ___ • ___ cm

57. Units of weight measurment performed:

Pounds	(1)
Kilograms	(2) [58b.]

58. Weight

    a. Weight in pounds:

$$\underline{\quad}\ \underline{\quad}\ \underline{\quad}\overset{\bullet}{\underline{\quad}}\ \underline{\quad}$$
$$\text{lb}$$

    b. Weight in kilograms *(measured directly or item 58a/2.2046):*

$$\underline{\quad}\ \underline{\quad}\ \underline{\quad}\overset{\bullet}{\underline{\quad}}\ \underline{\quad}$$
$$\text{kg}$$

59. Body mass index, BMI
(kg/m^2; weight/[(ht/100)^2]; use a calculator):

$$\underline{\quad}\ \underline{\quad}\overset{\bullet}{\underline{\quad}}\ \underline{\quad}$$
$$\text{kg/m}^2$$

(Note: If BMI > 31.1 (males) or > 32.3 (females) at time of randomization, patient is ineligible for NETT. Clinic staff will need to judge whether patient should continue with screening or stop.)

F. ID assignment

(If a STOP condition was checked in Section B or D, the patient is ineligible and a Patient ID should not be assigned. Otherwise, assign an ID by following the directions in the item below.)

60. Place ID label below and enter Patient ID in item 2, and in the upper right hand corner of pages 2-5.

┌ ─ ─ ─ ─ ─ ─ ─ ┐
│   │
└ ─ ─ ─ ─ ─ ─ ─ ┘

G. Insurance information

The following information is necessary so that payment can be made to the institution by the patient's insurance company for NETT testing. Some of this information will also be used to search public databases for vital status information. This information will be transmitted to the Coordinating Center.

61. Patient's social security number:

$$\underline{\quad}\ \underline{\quad}\ \ \underline{\quad}\text{-}\underline{\quad}\ \ \underline{\quad}\text{-}\underline{\quad}\ \underline{\quad}\ \underline{\quad}\ \underline{\quad}$$

62. Insurance claim data

    a. Insurance company to be billed for NETT procedures:

Medicare	(₁)
Kaiser Permanente Northeast	(₂)
Other *(specify)*	(₃)

$$\underline{\hspace{6cm}}$$
$$\text{specify}$$

    b. Patient's claim number for insurance company named in item 62a *(NOTE: HIC # is 9 digits plus 1 or more alphabetic characters)*

$$\underline{\hspace{6cm}}$$

Note, patient can not be enrolled unless an insurance claim number is provided.

If patient is eligible and the Consent for Screening and Registry has been signed, order diagnostic tests and examinations.

H. Administrative information

63. Study Physician PIN: ___ ___ ___

64. Study Physician signature:

$$\underline{\hspace{6cm}}$$

65. Clinic Coordinator PIN: ___ ___ ___

66. Clinic Coordinator signature:

$$\underline{\hspace{6cm}}$$

67. Date form reviewed:

$$\underline{\quad}\ \underline{\quad}\text{-}\underline{\quad}\ \underline{\quad}\ \underline{\quad}\text{-}\underline{\quad}\ \underline{\quad}$$
$$\text{day}\qquad\text{mon}\qquad\text{year}$$

NOTE: Fax the report to the Coordinating Center.

```
EH    -    Form EH  Pre Rehabilitation Eligibility Check (rev 3)

Date file created:  13 May 2006
Observations:            3775
Variables:                 74

Variable                                                    Variable
  Name        Variable Label                      Type      Length      Format

eh307        7   Smoked any tobacco products since S1    Char        1
eh310        #10 cnvrtd to #days frm RZ/scr strt     Char        7
eh311        #11 cnvrtd to #days frm RZ/scr strt     Char        7
eh312        #12 cnvrtd to #days frm RZ/scr strt     Char        7
eh313        #13 cnvrtd to #days frm RZ/scr strt     Char        7
eh315        15  Run task or do worksheet?           Char        1
eh316        #16 cnvrtd to #days frm RZ/scr strt     Char        7
eh317        17  Task: any stops?                    Char        1
eh318        18  SH worksheet: any stops?            Char        1
eh320        20  Consent for rehabilitation signed   Char        1
eh321        #21 cnvrtd to #days frm RZ/scr strt     Char        7
eh308a       8a  Clinically significant bronchiectasi   Char     1
eh308b       8b  Pleural/interstitial disease        Char        1
eh308c       8c  MI within 6 months and LVEF<45%     Char        1
eh308d       8d  Congestive HF within 6 mos & LVEF<45   Char     1
eh308e       8e  Uncontrolled hypertension           Char        1
eh308f       8f  Resting bradycardia (<50 b/min)     Char        1
eh308g       8g  Frequent multifocal PVCs            Char        1
eh308h       8h  Complex ventricular arrhythmia      Char        1
eh308i       8i  Sustanined SVT                      Char        1
eh308j       8j  Other cardiac dysrhythmia           Char        1
eh308k       8k  History of exercise related syncope   Char      1
eh308l       8l  Previous sternotomy/lobectomy       Char        1
eh308m       8m  Previous lung volume reduction surge   Char     1
eh308n       8n  Pulmonary nodule surgery            Char        1
eh308o       8o  Giant bulla                         Char        1
eh308p       8p  Systemic disease/neoplasia affecting   Char     1
eh308q       8q  Dx/condition which may impair cooper   Char     1
eh308r       8r  Unstable angina                     Char        1
eh309a       9a  Bilateral emphysema on CT scan      Char        1
eh309b       9b  Diffuse emphysema unsuitable for LVR   Char     1
eh319a       19a No checked for item 17              Char        1
eh319b       19b No checked for item 18              Char        1
eh319c       19c Yes checked for item 17             Char        1
eh319d       19d Yes checked for item 18             Char        1
eh319e       19e Ineligible checked in items 7-14    Char        1
eh319f       19f None of the above                   Char        1
eh322a       22a Pre BD FEV1 (liters)                Char        3
eh322b       22b Post BD FEV1 (liters)               Char        3
eh322c       22c DLCO (ml/min/mmHg)                  Char        3
eh322d       22d Post BD TLC (liters)                Char        4
eh322e       22e Post BD RV (liters)                 Char        4
eh322f       22f PaCO2 on room air (mmHg)            Char        2
eh322g       22g PaO2 on room air (mmHg)             Char        3
eh323al      23a Emphysema severity score:L upper zon   Char     1
eh323ar      23a Emphysema severity score:R upper zon   Char     1
eh323bl      23b Emphysema severity score:L middle zo   Char     1
eh323br      23b Emphysema severity score:R middle zo   Char     1
eh323cl      23c Emphysema severity score:L lower zon   Char     1
eh323cr      23c Emphysema severity score:R lower zon   Char     1
eh324a       24a PFT a/o CT scan ineligibility       Char        1
eh324b       24b Items 7-14 ineligibility            Char        1
eh324c       24c Cotinine>13.7 ng/ml & not using nico   Char     1
eh324d       24d Carboxyhemoglobin>2.5% & using nicot   Char     1
eh324e       24e Other blood/urine exclusion         Char        1
eh324f       24f BMI>31.1(male) or >32.3(female)     Char        1
eh324g       24g Unplanned weight loss>10% usual weig   Char     1
eh324h       24h Excessive daily sputum              Char        1
```

```
EH    -    Form EH  Pre Rehabilitation Eligibility Check (rev 3)

Date file created:  13 May 2006
Observations:           3775
Variables:                74

Variable                                           Variable
  Name        Variable Label                 Type   Length    Format

eh324i      24i Unstable on <=20 mg prednisone     Char      1
eh324j      24j Exclusionary medical condition from Char     1
eh324k      24k Exclusionary medical condition from Char     1
eh324l      24l Exclusionary condition from cardiac Char     1
eh324m      24m Cardiologist exclusion              Char      1
eh324n      24n Could not complete 6-minute walk tes Char    1
eh324o      24o Other reason from 6-minute walk test Char    1
eh324p      24p Could not complete 3-min unloaded pe Char    1
eh324q      24q Other reason based on exercise test  Char     1
eh324r      24r Trail Making Test exclusion          Char     1
eh324s      24s Time window exclusion                Char     1
eh324t      24t Other reason for exclusion           Char     1
form        Form abreviation and revision number    Char      4
formdate    #4 cnvrtd to #days frm RZ/scr strt      Num       8
newnett     New NETT patient ID no.                 Char      5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char      3
```

Purpose: • Check eligibility for trial and rehabilitation.
• Check completion of required assessments and conformance with required time windows.
• Alert you to findings which will render the patient ineligible if unchanged at the time of randomization.
• Record reasons for ineligibility for patients found to be ineligible prior to starting rehabilitation.

When: Visit s2, after patient has completed all s1 and s2 assessments.

Administered by: Clinic Coordinator and Study Physician (pulmonary physician or thoracic surgeon).

Respondent: None.

Instructions: If ⊘ is checked for any item, complete the entire form but note that the patient may not continue in NETT. If an item has not been assessed because the patient is ineligible, write ''m'' (missing) next to that item. This form should be keyed to the database for each patient for whom Form EB was completed without encountering a ⊘ or ⊘ condition. Use a calculator for all calculations. If this form is completed without checking a ⊘ or ⊘ condition, Form ER must (eventually) be completed for the patient. A report will print after the 2nd keying indicating the patient's eligibility status based on the information keyed for this form. This report should be faxed to the Coordinating Center.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: s 2 ___

6. Form & revision: e h 3

B. Checks on current status and overall findings

7. Has the patient smoked any tobacco products (eg, cigarettes, cigars, pipes, cigarillos) since starting the screening process:

Yes (1)   No (2)
↳ ⊘

8. Do any of the patient's assessments show evidence of:

a. Clinically significant bronchiectasis:

Yes (1)   No (2)
↳ ⊘

b. Pleural or interstitial disease that precludes surgery:

Yes (1)   No (2)
↳ ⊘

c. MI within 6 months and LVEF < 45%:

Yes (1)   No (2)
↳ ⊘

d. Congestive heart failure within 6 months and LVEF < 45%:

Yes (1)   No (2)
↳ ⊘

e. Uncontrolled hypertension (BP systolic > 200 mmHg; diastolic > 110 mmHg):

Yes (1)   No (2)
↳ ⊘

f. Resting bradycardia (< 50 beats/min):

Yes (1)   No (2)
↳ ⊘

g. Frequent multifocal PVCs:

Yes (1) No (2)
→ EKg

h. Complex ventricular arrhythmia:

Yes (1) No (2)
→ EKg

i. Sustained SVT:

Yes (1) No (2)
→ EKg

j. Other cardiac dysrhythmia which may pose risk to patient during exercise:

Yes (1) No (2)
→ EKg

k. History of exercise related syncope:

Yes (1) No (2)
→ EKg

l. Previous sternotomy or lobectomy:

Yes (1) No (2)
→ EKg

m. Previous laser or lung volume reduction surgery:

Yes (1) No (2)
→ EKg

n. Pulmonary nodule requiring surgery:

Yes (1) No (2)
→ EKg

o. Giant bulla:

Yes (1) No (2)
→ EKg

p. Any systemic disease or neoplasia that is expected to compromise survival over duration of the trial:

Yes (1) No (2)
EKg ← | 8q. ←

If Yes, specify:

_____
specify

q. Any disease or condition which may impair cooperation with exercise tests, therapy, or followup *(eg, renal insufficiency, uncontrolled diabetes, cancer):*

Yes (1) No (2)
EKg ← | 8r. ←

If Yes, specify:

_____
specify

r. Unstable angina:

Yes (* 1) No (2)

*(*Patient must be evaluated by a cardiologist prior to randomization.)*

C. Check on CT scan eligibility criteria

9. CT scan assessment

a. Does the CT scan show evidence of bilateral emphysema suitable for LVRS:

Yes (1) No (2)
EKg ←

b. Does the CT scan show evidence of diffuse emphysema judged unsuitable for LVRS:

Yes (1) No (2)
EKg ←

D. Check on completion of Rehab Eval assessments *(these evaluations must be completed prior to starting Core Rehabilitation)*

10. Date of physician (clinic physician or rehab physician) visit:

___ ___ - ___ ___ - ___ ___
day   mon   year

11. Date of exercise evaluation:

___ ___ - ___ ___ - ___ ___
day   mon   year

12. Date of skill/education evaluation:

___ ___ - ___ ___ - ___ ___
day   mon   year

13. Date of psychosocial evaluation:

___ ___ - ___ ___ - ___ ___
day   mon   year

14. Should the patient be excluded from enrollment based on any findings from the Rehab Eval assessments *(items 10-13; enter m if Rehab Eval was not done):*

Yes ($_1$)   No ($_2$)

(Elig) ◄— | 15. |——

If Yes, specify:

_____
specify reason for ineligibility

E. Date, numeric, and form specific checks and summary check on eligibility

Instructions: *You may:*

(1) Complete the Pre Rehabilitation Eligibility Check Worksheet (Form SH) and do the date, numeric, and form checks by hand.
(2) Key the s1/s2 Forms HB, PE, PF, BU, HF, RC, RR, MO, MM, EW/ES, QB, QE, TM, QF, QG, QS, and QW and run the Pre Rehabilitation Eligibility Check task on your clinic data system.
(3) Do neither of (1) or (2) because you already know the patient is ineligible.
You must do (1) or (2) in order to clear the patient for rehabilitation. You must do (2) prior to randomization.

15. Do you want to evaluate eligibility (ie, run the Pre Rehabilitation Eligibility Check task or complete Form SH) *(check "No" if you know the patient is ineligible):*

Yes ($_1$)   No ($_2$)

| 19. | ◄——

16. Anticipated date for first Core Rehabilitation session *(you must specify a date in item 16; eligibility cannot be evaluated if a date is not specified):*

___ ___ - ___ ___ - ___ ___
day   mon   year

17. Were any STOPs or ineligibilities other than ''missing Form EH'' identified by the Pre Rehabilitation Eligibility Check task:

Yes   ($_1$)
No   ($_2$)
Task not run   ($_3$)

18. Were any STOPs or ineligibilities checked on Form SH:

Yes   ($_1$)
No   ($_2$)
Form not completed   ($_3$)

19. Eligibility status *(check all that apply)*

a. ''No'' checked for item 17:   ($_1$)
b. ''No'' checked for item 18:   ($_1$)
c. "Yes'' checked for item 17:   ($_1$)

| 21. | ◄——

d. ''Yes'' checked for item 18:   ($_1$)

| 21. | ◄——

e. Ineligibility condition checked in items 7-14:   ($_1$)

| 21. | ◄——

f. None of the above: ($_1$)

| 21. | ◄——

NOTE: If item 19a or item 19b is checked, the patient is eligible; complete item 20.

20. Has the patient signed the Consent for Pulmonary Rehabilitation:

Yes (†$_1$)   No (*$_2$)

| 25. | ◄——   (STOP) ◄——

(†The patient is cleared to start NETT rehabilitation; skip to item 25.)

*(*The Consent for Pulmonary Rehabilitation must be signed prior to starting Core Rehabilitation.)*

F. Selected baseline data and reasons for ineligibility for ineligible patients

NOTE: Complete this section for ineligible patients <u>ONLY</u>.

21. Date of s1/s2 Form PF:

_____ - _____ - _____
day mon year

22. Pulmonary function values *(complete as many of these values from s1/s2 Form PF as you can; enter "m" for any that were not done)*

a. Pre BD FEV$_1$: ___ • ___ ___
liters-BTPS

b. Post BD FEV$_1$: ___ • ___ ___
liters-BTPS

c. D$_{LCO}$: ___ ___ • ___
ml/min/mmHg STPD

d. Post BD TLC: ___ ___ • ___
liters-BTPS

e. Post BD RV: ___ ___ • ___
liters-BTPS

f. PaCO$_2$ on room air: ___ ___
mmHg

g. PaO$_2$ on room air: ___ ___
mmHg

23. Emphysema severity scores *(complete as many of these values from Form RC as you can; enter "m" for any that were not done)*

	Right	Left
a. Upper zone:	___ (0-4)	___ (0-4)
b. Middle zone:	___ (0-4)	___ (0-4)
c. Lower zone:	___ (0-4)	___ (0-4)

24. Reasons for ineligibility *(check all that apply)*

a. Numeric PFT, ABG, and/or FEV$_1$ subgroup ineligibility: (₁)

b. Reason covered in items 7-14: (₁)

c. Cotinine > 13.7 ng/ml and patient is not using nicotine products: (₁)

d. Carboxyhemoglobin > 2.5% and patient is using nicotine products: (₁)

e. Excluded on the basis of other blood or urine analysis results: (₁)

f. BMI > 31.1 (male) or 32.3 (female) and judgment is that patient would be excluded on this basis at randomization: (₁)

g. Unplanned weight loss > 10% usual weight in the 3 months prior to interview: (₁)

h. Excessive daily sputum: (₁)

i. Patient is not stable on ≤ 20 mg prednisone (or equivalent) daily and judgment is that patient would be excluded on this basis at randomization: (₁)

j. History indicates evidence of exclusionary medical condition: (₁)

k. Physical exam indicates evidence of exclusionary medical condition: (₁)

l. Cardiac function test (ECG, echo, dobutamine-radionuclide scan, right heart cath) indicates evidence of exclusionary condition: (₁)

m. Cardiologist did not clear patient for randomization: (₁)

n. Patient could not complete the six minute walk test: (₁)

o. Other reason for exclusion based on six minute walk test: (₁)

p. Patient could not complete 3 minutes unloaded pedaling: (₁)

q. Other reason for exclusion based on exercise test: (₁)

r. Excluded based on performance on Trail Making Test: (₁)

s. Tests are outside time window and
clinic chose not to repeat tests: (1)

t. Other reason not yet covered on this
form *(eg, refused consent):*   (1)

_____
specify reason for ineligibility

G. Administrative information

25. Study physician PIN: ___ ___ ___

26. Study physician signature:

_____

27. Clinic Coordinator PIN: ___ ___ ___

28. Clinic Coordinator signature:

_____

29. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

*NOTE: When this form is keyed, a report will
print after the second keying indicating the
patients's eligibility status. Fax the report to the
Coordinating Center immediately.*

```
ER    -    Form ER  Final Eligibility Review (rev 3)

Date file created:  13 May 2006
Observations:              1799
Variables:                   44

Variable                                            Variable
  Name        Variable Label                Type    Length    Format

  er220       20  Any reason patient is ineligible?   Char       1
  er221       21  Any reason patient is ineligible?   Char       1
  er307       7   Patient smoked any tobacco products Char       1
  er308       8   BMI>31.1(men) or BMI>32.3(women)    Char       1
  er309       9   Patient stable on <= 20mg prednisone Char      1
  er310       10  Any reason to exclude patient       Char       1
  er311       #11 cnvrtd to #days frm RZ/scr strt     Char       7
  er312       #12 cnvrtd to #days frm RZ/scr strt     Char       7
  er313       #13 cnvrtd to #days frm RZ/scr strt     Char       7
  er314       14  Any reason patient is ineligible?   Char       1
  er315       15  Surgeon judges patient ineligible   Char       1
  er316       16  Pulm MD judges patient ineligible   Char       1
  er317       17  Randomization task/worksheet done   Char       1
  er318       #18 cnvrtd to #days frm RZ/scr strt     Char       7
  er319       19  STOPS on Randomization task         Char       1
  er320       20  STOPS on Form SZ                    Char       1
  er322       22  Signed Consent for Randomization?   Char       1
  er323       23  Surgery can be done within 14 days? Char       1
  er324       24  Clinic in contact with patient?     Char       1
  er325       25  Patient prepared to return to clinic Char      1
  er326       26  Patient still consents to randomizat Char      1
  er327       27  Ineligible conditions checked in 22- Char      1
  er321a      21a NO checked for item 19             Char       1
  er321b      21b NO checked for item 20             Char       1
  er321c      21c YES checked for item 19            Char       1
  er321d      21d YES checked for item 20            Char       1
  er321e      21e Ineligible in items 7-16          Char       1
  er321f      21f None of the above                 Char       1
  er328a      28a Ineligible items checked in 7-27  Char       1
  er328b      28b Change in PFT and/or ABG from pre re Char     1
  er328c      28c Cotinine >13.7 ng/ml, not using nico Char     1
  er328d      28d Carboxyhemoglobin>2.5%, using nicoti Char     1
  er328e      28e Rt heart catherization exclusion   Char       1
  er328f      28f Cardiologist exclusion             Char       1
  er328g      28g Walked < 140 meter on 6 min walk   Char       1
  er328h      28h Other s3/rz 6 min walk exclusion   Char       1
  er328i      28i Could not complete 3 min unloaded pe Char     1
  er328j      28j Other exercise test exclusion      Char       1
  er328k      28k s3/rz tests outside time window    Char       1
  er328l      28l Other reason for ineligibilty      Char       1
  form        Form abreviation and revision number   Char       4
  formdate    #4 cnvrtd to #days frm RZ/scr strt     Num        8
  newnett     New NETT patient ID no.                Char       5
  visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char       3
```

Purpose: To review eligibility just prior to randomization.

When: Visit rz.

Administered by: Clinic Coordinator, Thoracic Surgeon, and Pulmonary Physician.

Respondent: None.

Instructions: This form must be completed for each patient who was eligible upon completion of Form EH. Hence it will be completed for patients who proceed to randomization and for patients who were cleared for rehabilitation but became ineligible after that event. A report will print after the 2nd keying indicating the patient's eligibility status based on the information keyed for this form. This report should be faxed to the Coordinating Center. **For patients whom you expect to randomize**: this form should be completed after post rehabilitation (s3) and randomization assessments have been completed. It must be keyed prior to running the randomization program. The clinic must be able to contact the patient immediately following generation of the random treatment assignment. If the patient signed the Consent for Randomization to Treatment at a previous visit, consent should be affirmed by the patient orally (telephone or in person) prior to generating the randomization.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____

4. Visit date *(date this form is initiated):*

_____ _____ - _____ _____ - _____ _____
day   mon   year

5. Visit ID code: __r__ __z__ _____

6. Form & revision: __e__ __r__ __3__

B. Checks on current status and overall findings

7. Has the patient smoked any tobacco products (eg, cigarettes, cigars, pipes, cigarillos) since starting the screening process for NETT:

(Yes 1) → Elig   (No 2)

8. Is BMI > 31.1 kg/m^2 (men) or > 32.3 kg/m^2 (women):

(Yes 1) → Elig   (No 2)

9. Is the patient stable on ≤ 20 mg prednisone (or its equivalent; see Chart 1) daily:

(Yes 1) Elig ←   (No 2)

10. Consider items 8 and 9 on Form EH; based on knowledge of the patient to date, is there any reason to think that the patient has any of the exclusionary conditions listed in these items:

(Yes 1) → Elig   (No 2)

If Yes, specify:

_____
specify reason for ineligibility

C. Check on completion of Rehab Re-evaluation assessments

11. Date of clinic physician visit:

_____ _____ - _____ _____ - _____ _____
day   mon   year

12. Date of exercise evaluation:

_____ _____ - _____ _____ - _____ _____
day   mon   year

13. Date of skill/education evaluation:

_____ _____ - _____ _____ - _____ _____
day   mon   year

14. Is there any reason to declare the patient
ineligible based on these assessments
(items 11-13):

Yes ( )₁   No ( )₂

(Elig)◄— [**15.**]◄—

If Yes, specify:

_____
specify reason for ineligibility

**D. Surgeon and pulmonologist approval for
randomization**

15. In your judgement (study surgeon) is
there any reason to exclude the patient
from randomization:

Yes ( )₁   No ( )₂

(Elig)◄— [**16.**]◄—

If Yes, specify reason:

_____
specify reason for ineligibility

_____
specify reason for ineligibility

_____
specify reason for ineligibility

16. In your judgement (study pulmonary
physician) is there any reason to exclude
the patient from randomization:

Yes ( )₁   No ( )₂

(Elig)◄— [**17.**]◄—

If Yes, specify reason:

_____
specify reason for ineligibility

_____
specify reason for ineligibility

_____
specify reason for ineligibility

**E. Date, numeric, and form specific checks and
summary check on eligibility**

Instructions: *You may:*

*(1) Complete the Final Eligibility Review
Worksheet (Form SZ) and do the date, numeric,
and form checks by hand.*

*(2) Key the s3/rz Forms AA, HI, PE, PF, BU (if
applicable), RP, MO, MM, EW/ES, QF, QG, QS,
and QW and run the check Randomization
eligibility task on your clinic data system. The task
will run assuming randomization will occur today.
The task includes checks on pre rehab data as well
-- the checks are cumulative.*

*(3) Do neither of (1) or (2) because you already
know the patient is ineligible.*

You must do (2) prior to randomization.

17. Will you run the Randomization
eligibility check task or complete the
Final Eligibility Review Worksheet
(Form SZ) *(Check "Yes" if you think the patient is
eligible or if you want to evaluate eligibility; check
"No" if you know the patient is ineligible):*

Yes ( )₁   No ( )₂

[**21.**]◄—

18. Anticipated date for randomization:

___ ___ - ___ ___ - ___ ___
day   mon   year

19. Were any STOPs or ineligibilities other
than ''missing Form ER'' identified by
the Randomization eligibility check task:

Yes   ( )₁
No   ( )₂
Task not run   ( )₃

20. Were any STOPs or ineligibilities
checked on Form SZ:

Yes   ( )₁
No   ( )₂
Form not completed   ( )₃

21. Eligibility status *(check all that apply)*

    a. ''No'' checked for item 19:   ($_1$)

    b. "No" checked for item 20:   ($_1$)

    c. ''Yes'' checked for item 19:   ($_1$)

    28.

    d. ''Yes'' checked for item 20:   ($_1$)

    28.

    e. Ineligibility condition checked in
        items 7-16:   ($_1$)

    28.

    f. None of the above: ($_1$)

    28.

22. Has the patient signed the Consent for
Randomization to Treatment:

    Yes ($_1$)   No (* $_2$) STOP

(*Consent form must be signed prior to randomization.)

23. Is the clinic prepared to operate on the
patient in the 14 days following the date
in item 18 if the patient is randomized to
surgery:

    Yes ($_1$)   No (* $_2$) STOP

(*Do not randomize the patient until schedule permits operation within 14 days.)

24. Is the clinic in contact with the patient
(ie, patient is present or available by
telephone) so that the patient will be
informed about the random treatment
assignment:

    Yes ($_1$)   No (* $_2$) STOP

(*Do not randomize until patient is available.)

25. Is the patient prepared to return to the
clinic the day of randomization or the
day after to begin Consolidation
Rehabilitation if assigned to medical
treatment:

    Yes ($_1$)   No (* $_2$) STOP

(*Do not randomize until patient can return as needed.)

26. Does the patient still consent to
randomization *(ie, if patient signed consent
previous to the day of randomization, you should
ask the patient to orally affirm his/her consent):*

    Yes ($_1$)   No ($_2$) Elig

27. Were any ineligible or STOP conditions
checked in items 22-26:

    Yes ($_1$)   No (* $_2$)

    Elig   **29.**

(*Complete Section G, Administrative information. Next step is to key this form and run the Randomization eligibility check task.)

F. Reasons for ineligibility

NOTE: Complete this section for ineligible patients <u>ONLY</u>.

28. Reasons for ineligibility *(check all that apply)*

a. Reason covered in items 7-27: (₁)

b. Change in PFT and/or ABG values from pre rehab levels; or FEV_1 subgroup ineligibility: (₁)

c. Cotinine > 13.7 ng/ml and patient is not using nicotine products: (₁)

d. Carboxyhemoglobin > 2.5% and patient is using nicotine products: (₁)

e. Right heart catheterization indicates evidence of exclusionary condition: (₁)

f. Cardiologist did not clear patient for randomization: (₁)

g. Distance walked on s3/rz Day 1 six minute walk was < 140 meters (459 feet) AND distance walked on s3/rz Day 2 six minute walk was < 140 meters (459 feet): (₁)

h. Other reason for exclusion based on s3/rz 6 minute walk test: (₁)

i. Patient could not complete 3 minutes unloaded pedaling on s3/rz exercise test: (₁)

j. Other reason for exclusion based on s3/rz exercise test: (₁)

k. One or more s3/rz tests are outside time window and clinic chose not to repeat test(s): (₁)

l. Other reason not yet covered on this form *(eg, refused randomization):* (₁)

_____

specify reason for ineligibility

G. Administrative information

29. Thoracic surgeon PIN: ___ ___ ___

30. Thoracic surgeon signature:

_____

31. Pulmonary physician PIN: ___ ___ ___

32. Pulmonary physician signature:

_____

33. Clinic Coordinator PIN: ___ ___ ___

34. Clinic Coordinator signature:

_____

35. Date form reviewed:

___ ___ - ___ ___ - ___ ___
  day   mon   year

NOTE: When this form is keyed, a report will print after the second keying indicating the patient's eligibility status. Fax the report to the Coordinating Center immediately.

```
ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                            Variable
  Name       Variable Label                  Type   Length    Format

es107      7   Barometric pressure              Char      3
es109      9   System valve dead space (ml)     Char      3
es108a     8a  Temperature (degrees)            Char      3
es108b     8b  Temperature (scale)              Char      1
es110a1    10a 1min:   Testing done 1=yes, 2=no Char      1
es110a2    10a 2min:   Testing done 1=yes, 2=no Char      1
es110a3    10a 3min:   Testing done 1=yes, 2=no Char      1
es110a4    10a 4min:   Testing done 1=yes, 2=no Char      1
es110a5    10a 5min:   Testing done 1=yes, 2=no Char      1
es110a6    10a 6min:   Testing done 1=yes, 2=no Char      1
es110a7    10a 7min:   Testing done 1=yes, 2=no Char      1
es110a8    10a 8min:   Testing done 1=yes, 2=no Char      1
es110a9    10a 9min:   Testing done 1=yes, 2=no Char      1
es110a10   10a 10min:  Testing done 1=yes, 2=no Char      1
es110a11   10a 11min:  Testing done 1=yes, 2=no Char      1
es110a12   10a 12min:  Testing done 1=yes, 2=no Char      1
es110a13   10a 13min:  Testing done 1=yes, 2=no Char      1
es110a14   10a 14min:  Testing done 1=yes, 2=no Char      1
es110a15   10a 15min:  Testing done 1=yes, 2=no Char      1
es110a16   10a 16min:  Testing done 1=yes, 2=no Char      1
es110a17   10a 17min:  Testing done 1=yes, 2=no Char      1
es110a18   10a 18min:  Testing done 1=yes, 2=no Char      1
es110a19   10a 19min:  Testing done 1=yes, 2=no Char      1
es110a20   10a 20min:  Testing done 1=yes, 2=no Char      1
es110a21   10a 21min:  Testing done 1=yes, 2=no Char      1
es110a22   10a 22min:  Testing done 1=yes, 2=no Char      1
es110a23   10a 23min:  Testing done 1=yes, 2=no Char      1
es110a24   10a 24min:  Testing done 1=yes, 2=no Char      1
es110a25   10a 25min:  Testing done 1=yes, 2=no Char      1
es110amp   10a 5minMP: Testing done 1=yes, 2=no Char      1
es110amx   10a Max:    Testing done 1=yes, 2=no Char      1
es110aun   10a 3minUp: Testing done 1=yes, 2=no Char      1
es110b1    10b 1min:   SpO2 (%)                 Char      3
es110b2    10b 2min:   SpO2 (%)                 Char      3
es110b3    10b 3min:   SpO2 (%)                 Char      3
es110b4    10b 4min:   SpO2 (%)                 Char      3
es110b5    10b 5min:   SpO2 (%)                 Char      3
es110b6    10b 6min:   SpO2 (%)                 Char      3
es110b7    10b 7min:   SpO2 (%)                 Char      3
es110b8    10b 8min:   SpO2 (%)                 Char      3
es110b9    10b 9min:   SpO2 (%)                 Char      3
es110b10   10b 10bin:  SpO2 (%)                 Char      3
es110b11   10b 11min:  SpO2 (%)                 Char      3
es110b12   10b 12min:  SpO2 (%)                 Char      3
es110b13   10b 13min:  SpO2 (%)                 Char      3
es110b14   10b 14min:  SpO2 (%)                 Char      3
es110b15   10b 15min:  SpO2 (%)                 Char      3
es110b16   10b 16min:  SpO2 (%)                 Char      3
es110b17   10b 17min:  SpO2 (%)                 Char      3
es110b18   10b 18min:  SpO2 (%)                 Char      3
es110b19   10b 19min:  SpO2 (%)                 Char      3
es110b20   10b 20min:  SpO2 (%)                 Char      3
es110b21   10b 21min:  SpO2 (%)                 Char      3
es110b22   10b 22min:  SpO2 (%)                 Char      3
es110b23   10b 23min:  SpO2 (%)                 Char      3
es110b24   10b 24min:  SpO2 (%)                 Char      3
es110b25   10b 25min:  SpO2 (%)                 Char      3
es110c1    10c 1min:   PaO2 (mmHg)              Char      3
```

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ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                           Variable
  Name       Variable Label                Type    Length   Format

es110c2    10c 2min:   PaO2  (mmHg)        Char       3
es110c3    10c 3min:   PaO2  (mmHg)        Char       3
es110c4    10c 4min:   PaO2  (mmHg)        Char       3
es110c5    10c 5min:   PaO2  (mmHg)        Char       3
es110c6    10c 6min:   PaO2  (mmHg)        Char       3
es110c7    10c 7min:   PaO2  (mmHg)        Char       3
es110c8    10c 8min:   PaO2  (mmHg)        Char       3
es110c9    10c 9min:   PaO2  (mmHg)        Char       3
es110c10   10c 10cin:  PaO2  (mmHg)        Char       3
es110c11   10c 11min:  PaO2  (mmHg)        Char       3
es110c12   10c 12min:  PaO2  (mmHg)        Char       3
es110c13   10c 13min:  PaO2  (mmHg)        Char       3
es110c14   10c 14min:  PaO2  (mmHg)        Char       3
es110c15   10c 15min:  PaO2  (mmHg)        Char       3
es110c16   10c 16min:  PaO2  (mmHg)        Char       3
es110c17   10c 17min:  PaO2  (mmHg)        Char       3
es110c18   10c 18min:  PaO2  (mmHg)        Char       3
es110c19   10c 19min:  PaO2  (mmHg)        Char       3
es110c20   10c 20min:  PaO2  (mmHg)        Char       3
es110c21   10c 21min:  PaO2  (mmHg)        Char       3
es110c22   10c 22min:  PaO2  (mmHg)        Char       3
es110c23   10c 23min:  PaO2  (mmHg)        Char       3
es110c24   10c 24min:  PaO2  (mmHg)        Char       3
es110c25   10c 25min:  PaO2  (mmHg)        Char       3
es110cmp   10c 5minMP: PaO2  (mmHg)        Char       3
es110cmx   10c Max:    PaO2  (mmHg)        Char       3
es110cun   10c 3minUp: PaO2  (mmHg)        Char       3
es110d1    10d 1min:   PaCO2 (mmHg)        Char       2
es110d2    10d 2min:   PaCO2 (mmHg)        Char       2
es110d3    10d 3min:   PaCO2 (mmHg)        Char       2
es110d4    10d 4min:   PaCO2 (mmHg)        Char       2
es110d5    10d 5min:   PaCO2 (mmHg)        Char       2
es110d6    10d 6min:   PaCO2 (mmHg)        Char       2
es110d7    10d 7min:   PaCO2 (mmHg)        Char       2
es110d8    10d 8min:   PaCO2 (mmHg)        Char       2
es110d9    10d 9min:   PaCO2 (mmHg)        Char       2
es110d10   10d 10din:  PaCO2 (mmHg)        Char       2
es110d11   10d 11min:  PaCO2 (mmHg)        Char       2
es110d12   10d 12min:  PaCO2 (mmHg)        Char       2
es110d13   10d 13min:  PaCO2 (mmHg)        Char       2
es110d14   10d 14min:  PaCO2 (mmHg)        Char       2
es110d15   10d 15min:  PaCO2 (mmHg)        Char       2
es110d16   10d 16min:  PaCO2 (mmHg)        Char       2
es110d17   10d 17min:  PaCO2 (mmHg)        Char       2
es110d18   10d 18min:  PaCO2 (mmHg)        Char       2
es110d19   10d 19min:  PaCO2 (mmHg)        Char       2
es110d20   10d 20min:  PaCO2 (mmHg)        Char       2
es110d21   10d 21min:  PaCO2 (mmHg)        Char       2
es110d22   10d 22min:  PaCO2 (mmHg)        Char       2
es110d23   10d 23min:  PaCO2 (mmHg)        Char       2
es110d24   10d 24min:  PaCO2 (mmHg)        Char       2
es110d25   10d 25min:  PaCO2 (mmHg)        Char       2
es110dmp   10d 5minMP: PaCO2 (mmHg)        Char       2
es110dmx   10d Max:    PaCO2 (mmHg)        Char       2
es110dun   10d 3minUp: PaCO2 (mmHg)        Char       2
es110e1    10e 1min:   pH                  Char       3
es110e2    10e 2min:   pH                  Char       3
es110e3    10e 3min:   pH                  Char       3
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ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                            Variable
  Name       Variable Label                  Type   Length    Format

es110e4     10e 4min:   pH                    Char      3
es110e5     10e 5min:   pH                    Char      3
es110e6     10e 6min:   pH                    Char      3
es110e7     10e 7min:   pH                    Char      3
es110e8     10e 8min:   pH                    Char      3
es110e9     10e 9min:   pH                    Char      3
es110e10    10e 10ein:  pH                    Char      3
es110e11    10e 11min:  pH                    Char      3
es110e12    10e 12min:  pH                    Char      3
es110e13    10e 13min:  pH                    Char      3
es110e14    10e 14min:  pH                    Char      3
es110e15    10e 15min:  pH                    Char      3
es110e16    10e 16min:  pH                    Char      3
es110e17    10e 17min:  pH                    Char      3
es110e18    10e 18min:  pH                    Char      3
es110e19    10e 19min:  pH                    Char      3
es110e20    10e 20min:  pH                    Char      3
es110e21    10e 21min:  pH                    Char      3
es110e22    10e 22min:  pH                    Char      3
es110e23    10e 23min:  pH                    Char      3
es110e24    10e 24min:  pH                    Char      3
es110e25    10e 25min:  pH                    Char      3
es110emp    10e 5minMP: pH                    Char      3
es110emx    10e Max:    pH                    Char      3
es110eun    10e 3minUp: pH                    Char      3
es110f1     10f 1min:   HCO3 (mEq/L)          Char      3
es110f2     10f 2min:   HCO3 (mEq/L)          Char      3
es110f3     10f 3min:   HCO3 (mEq/L)          Char      3
es110f4     10f 4min:   HCO3 (mEq/L)          Char      3
es110f5     10f 5min:   HCO3 (mEq/L)          Char      3
es110f6     10f 6min:   HCO3 (mEq/L)          Char      3
es110f7     10f 7min:   HCO3 (mEq/L)          Char      3
es110f8     10f 8min:   HCO3 (mEq/L)          Char      3
es110f9     10f 9min:   HCO3 (mEq/L)          Char      3
es110f10    10f 10fin:  HCO3 (mEq/L)          Char      3
es110f11    10f 11min:  HCO3 (mEq/L)          Char      3
es110f12    10f 12min:  HCO3 (mEq/L)          Char      3
es110f13    10f 13min:  HCO3 (mEq/L)          Char      3
es110f14    10f 14min:  HCO3 (mEq/L)          Char      3
es110f15    10f 15min:  HCO3 (mEq/L)          Char      3
es110f16    10f 16min:  HCO3 (mEq/L)          Char      3
es110f17    10f 17min:  HCO3 (mEq/L)          Char      3
es110f18    10f 18min:  HCO3 (mEq/L)          Char      3
es110f19    10f 19min:  HCO3 (mEq/L)          Char      3
es110f20    10f 20min:  HCO3 (mEq/L)          Char      3
es110f21    10f 21min:  HCO3 (mEq/L)          Char      3
es110f22    10f 22min:  HCO3 (mEq/L)          Char      3
es110f23    10f 23min:  HCO3 (mEq/L)          Char      3
es110f24    10f 24min:  HCO3 (mEq/L)          Char      3
es110f25    10f 25min:  HCO3 (mEq/L)          Char      3
es110fmp    10f 5minMP: HCO3 (mEq/L)          Char      3
es110fmx    10f Max:    HCO3 (mEq/L)          Char      3
es110fun    10f 3minUp: HCO3 (mEq/L)          Char      3
es110g1     10g 1min:   +/- BE                Char      4
es110g2     10g 2min:   +/- BE                Char      4
es110g3     10g 3min:   +/- BE                Char      4
es110g4     10g 4min:   +/- BE                Char      4
es110g5     10g 5min:   +/- BE                Char      4
```

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ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                            Variable
 Name        Variable Label                   Type   Length    Format

es110g6     10g 6min:   +/- BE                Char      4
es110g7     10g 7min:   +/- BE                Char      4
es110g8     10g 8min:   +/- BE                Char      4
es110g9     10g 9min:   +/- BE                Char      4
es110g10    10g 10gin:  +/- BE                Char      4
es110g11    10g 11min:  +/- BE                Char      4
es110g12    10g 12min:  +/- BE                Char      4
es110g13    10g 13min:  +/- BE                Char      4
es110g14    10g 14min:  +/- BE                Char      4
es110g15    10g 15min:  +/- BE                Char      4
es110g16    10g 16min:  +/- BE                Char      4
es110g17    10g 17min:  +/- BE                Char      4
es110g18    10g 18min:  +/- BE                Char      4
es110g19    10g 19min:  +/- BE                Char      4
es110g20    10g 20min:  +/- BE                Char      4
es110g21    10g 21min:  +/- BE                Char      4
es110g22    10g 22min:  +/- BE                Char      4
es110g23    10g 23min:  +/- BE                Char      4
es110g24    10g 24min:  +/- BE                Char      4
es110g25    10g 25min:  +/- BE                Char      4
es110gmp    10g 5minMP: +/- BE                Char      4
es110gmx    10g Max:    +/- BE                Char      4
es110gun    10g 3minUp: +/- BE                Char      4
es110h1     10h 1min:   SaO2 (%)              Char      3
es110h2     10h 2min:   SaO2 (%)              Char      3
es110h3     10h 3min:   SaO2 (%)              Char      3
es110h4     10h 4min:   SaO2 (%)              Char      3
es110h5     10h 5min:   SaO2 (%)              Char      3
es110h6     10h 6min:   SaO2 (%)              Char      3
es110h7     10h 7min:   SaO2 (%)              Char      3
es110h8     10h 8min:   SaO2 (%)              Char      3
es110h9     10h 9min:   SaO2 (%)              Char      3
es110h10    10h 10hin:  SaO2 (%)              Char      3
es110h11    10h 11min:  SaO2 (%)              Char      3
es110h12    10h 12min:  SaO2 (%)              Char      3
es110h13    10h 13min:  SaO2 (%)              Char      3
es110h14    10h 14min:  SaO2 (%)              Char      3
es110h15    10h 15min:  SaO2 (%)              Char      3
es110h16    10h 16min:  SaO2 (%)              Char      3
es110h17    10h 17min:  SaO2 (%)              Char      3
es110h18    10h 18min:  SaO2 (%)              Char      3
es110h19    10h 19min:  SaO2 (%)              Char      3
es110h20    10h 20min:  SaO2 (%)              Char      3
es110h21    10h 21min:  SaO2 (%)              Char      3
es110h22    10h 22min:  SaO2 (%)              Char      3
es110h23    10h 23min:  SaO2 (%)              Char      3
es110h24    10h 24min:  SaO2 (%)              Char      3
es110h25    10h 25min:  SaO2 (%)              Char      3
es110hmp    10h 5minMP: SaO2 (%)              Char      3
es110hmx    10h Max:    SaO2 (%)              Char      3
es110hun    10h 3minUp: SaO2 (%)              Char      3
es110i1     10i 1min:   FeCO2 (fraction)      Char      4
es110i2     10i 2min:   FeCO2 (fraction)      Char      4
es110i3     10i 3min:   FeCO2 (fraction)      Char      4
es110i4     10i 4min:   FeCO2 (fraction)      Char      4
es110i5     10i 5min:   FeCO2 (fraction)      Char      4
es110i6     10i 6min:   FeCO2 (fraction)      Char      4
es110i7     10i 7min:   FeCO2 (fraction)      Char      4
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ES   -   Form ES Exercise ABG Substudy Testing (rev 1)

Date file created: 13 May 2006
Observations: 908
Variables: 535

Variable Name	Variable Label	Type	Variable Length	Format
es110i8	10i 8min: FeCO2 (fraction)	Char	4	
es110i9	10i 9min: FeCO2 (fraction)	Char	4	
es110i10	10i 10min: FeCO2 (fraction)	Char	4	
es110i11	10i 11min: FeCO2 (fraction)	Char	4	
es110i12	10i 12min: FeCO2 (fraction)	Char	4	
es110i13	10i 13min: FeCO2 (fraction)	Char	4	
es110i14	10i 14min: FeCO2 (fraction)	Char	4	
es110i15	10i 15min: FeCO2 (fraction)	Char	4	
es110i16	10i 16min: FeCO2 (fraction)	Char	4	
es110i17	10i 17min: FeCO2 (fraction)	Char	4	
es110i18	10i 18min: FeCO2 (fraction)	Char	4	
es110i19	10i 19min: FeCO2 (fraction)	Char	4	
es110i20	10i 20min: FeCO2 (fraction)	Char	4	
es110i21	10i 21min: FeCO2 (fraction)	Char	4	
es110i22	10i 22min: FeCO2 (fraction)	Char	4	
es110i23	10i 23min: FeCO2 (fraction)	Char	4	
es110i24	10i 24min: FeCO2 (fraction)	Char	4	
es110i25	10i 25min: FeCO2 (fraction)	Char	4	
es110imp	10i 5minMP: FeCO2 (fraction)	Char	4	
es110imx	10i Max: FeCO2 (fraction)	Char	4	
es110iun	10i 3minUp: FeCO2 (fraction)	Char	4	
es110j1	10j 1min: Ve (BTPS;L/min)	Char	3	
es110j2	10j 2min: Ve (BTPS;L/min)	Char	3	
es110j3	10j 3min: Ve (BTPS;L/min)	Char	3	
es110j4	10j 4min: Ve (BTPS;L/min)	Char	3	
es110j5	10j 5min: Ve (BTPS;L/min)	Char	3	
es110j6	10j 6min: Ve (BTPS;L/min)	Char	3	
es110j7	10j 7min: Ve (BTPS;L/min)	Char	3	
es110j8	10j 8min: Ve (BTPS;L/min)	Char	3	
es110j9	10j 9min: Ve (BTPS;L/min)	Char	3	
es110j10	10j 10jin: Ve (BTPS;L/min)	Char	3	
es110j11	10j 11min: Ve (BTPS;L/min)	Char	3	
es110j12	10j 12min: Ve (BTPS;L/min)	Char	3	
es110j13	10j 13min: Ve (BTPS;L/min)	Char	3	
es110j14	10j 14min: Ve (BTPS;L/min)	Char	3	
es110j15	10j 15min: Ve (BTPS;L/min)	Char	3	
es110j16	10j 16min: Ve (BTPS;L/min)	Char	3	
es110j17	10j 17min: Ve (BTPS;L/min)	Char	3	
es110j18	10j 18min: Ve (BTPS;L/min)	Char	3	
es110j19	10j 19min: Ve (BTPS;L/min)	Char	3	
es110j20	10j 20min: Ve (BTPS;L/min)	Char	3	
es110j21	10j 21min: Ve (BTPS;L/min)	Char	3	
es110j22	10j 22min: Ve (BTPS;L/min)	Char	3	
es110j23	10j 23min: Ve (BTPS;L/min)	Char	3	
es110j24	10j 24min: Ve (BTPS;L/min)	Char	3	
es110j25	10j 25min: Ve (BTPS;L/min)	Char	3	
es110k1	10k 1min: Vt (BTPS,L)	Char	4	
es110k2	10k 2min: Vt (BTPS,L)	Char	4	
es110k3	10k 3min: Vt (BTPS,L)	Char	4	
es110k4	10k 4min: Vt (BTPS,L)	Char	4	
es110k5	10k 5min: Vt (BTPS,L)	Char	4	
es110k6	10k 6min: Vt (BTPS,L)	Char	4	
es110k7	10k 7min: Vt (BTPS,L)	Char	4	
es110k8	10k 8min: Vt (BTPS,L)	Char	4	
es110k9	10k 9min: Vt (BTPS,L)	Char	4	
es110k10	10k 10min: Vt (BTPS,L)	Char	4	
es110k11	10k 11min: Vt (BTPS,L)	Char	4	
es110k12	10k 12min: Vt (BTPS,L)	Char	4	

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Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                              Variable
  Name       Variable Label                   Type    Length    Format

es110k13    10k 13min:  Vt (BTPS,L)           Char       4
es110k14    10k 14min:  Vt (BTPS,L)           Char       4
es110k15    10k 15min:  Vt (BTPS,L)           Char       4
es110k16    12k 16min:  Vt (BTPS,L)           Char       4
es110k17    12k 17min:  Vt (BTPS,L)           Char       4
es110k18    12k 18min:  Vt (BTPS,L)           Char       4
es110k19    12k 19min:  Vt (BTPS,L)           Char       4
es110k20    12k 20min:  Vt (BTPS,L)           Char       4
es110k21    12k 21min:  Vt (BTPS,L)           Char       4
es110k22    12k 22min:  Vt (BTPS,L)           Char       4
es110k23    12k 23min:  Vt (BTPS,L)           Char       4
es110k24    12k 24min:  Vt (BTPS,L)           Char       4
es110k25    12k 25min:  Vt (BTPS,L)           Char       4
es110l1     10l 1min:   V CO2 (STDP;L/min)    Char       4
es110l2     10l 2min:   V CO2 (STDP;L/min)    Char       4
es110l3     10l 3min:   V CO2 (STDP;L/min)    Char       4
es110l4     10l 4min:   V CO2 (STDP;L/min)    Char       4
es110l5     10l 5min:   V CO2 (STDP;L/min)    Char       4
es110l6     10l 6min:   V CO2 (STDP;L/min)    Char       4
es110l7     10l 7min:   V CO2 (STDP;L/min)    Char       4
es110l8     10l 8min:   V CO2 (STDP;L/min)    Char       4
es110l9     10l 9min:   V CO2 (STDP;L/min)    Char       4
es110l10    10l 10min:  V CO2 (STDP;L/min)    Char       4
es110l11    10l 11min:  V CO2 (STDP;L/min)    Char       4
es110l12    10l 12min:  V CO2 (STDP;L/min)    Char       4
es110l13    10l 13min:  V CO2 (STDP;L/min)    Char       4
es110l14    10l 14min:  V CO2 (STDP;L/min)    Char       4
es110l15    10l 15min:  V CO2 (STDP;L/min)    Char       4
es110l16    10l 16min:  V CO2 (STDP;L/min)    Char       4
es110l17    10l 17min:  V CO2 (STDP;L/min)    Char       4
es110l18    10l 18min:  V CO2 (STDP;L/min)    Char       4
es110l19    10l 19min:  V CO2 (STDP;L/min)    Char       4
es110l20    10l 20min:  V CO2 (STDP;L/min)    Char       4
es110l21    10l 21min:  V CO2 (STDP;L/min)    Char       4
es110l22    10l 22min:  V CO2 (STDP;L/min)    Char       4
es110l23    10l 23min:  V CO2 (STDP;L/min)    Char       4
es110l24    10l 24min:  V CO2 (STDP;L/min)    Char       4
es110l25    10l 25min:  V CO2 (STDP;L/min)    Char       4
es110m1     10m 1min:   VO2 (STDP;L/min)      Char       4
es110m2     10m 2min:   VO2 (STDP;L/min)      Char       4
es110m3     10m 3min:   VO2 (STDP;L/min)      Char       4
es110m4     10m 4min:   VO2 (STDP;L/min)      Char       4
es110m5     10m 5min:   VO2 (STDP;L/min)      Char       4
es110m6     10m 6min:   VO2 (STDP;L/min)      Char       4
es110m7     10m 7min:   VO2 (STDP;L/min)      Char       4
es110m8     10m 8min:   VO2 (STDP;L/min)      Char       4
es110m9     10m 9min:   VO2 (STDP;L/min)      Char       4
es110m10    10m 10min:  VO2 (STDP;L/min)      Char       4
es110m11    10m 11min:  VO2 (STDP;L/min)      Char       4
es110m12    10m 12min:  VO2 (STDP;L/min)      Char       4
es110m13    10m 13min:  VO2 (STDP;L/min)      Char       4
es110m14    10m 14min:  VO2 (STDP;L/min)      Char       4
es110m15    10m 15min:  VO2 (STDP;L/min)      Char       4
es110m16    10m 16min:  VO2 (STDP;L/min)      Char       4
es110m17    10m 17min:  VO2 (STDP;L/min)      Char       4
es110m18    10m 18min:  VO2 (STDP;L/min)      Char       4
es110m19    10m 19min:  VO2 (STDP;L/min)      Char       4
es110m20    10m 20min:  VO2 (STDP;L/min)      Char       4
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ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:              908
Variables:                 535

Variable                                              Variable
  Name      Variable Label                     Type   Length    Format

es110m21   10m 21min:  VO2 (STDP;L/min)         Char      4
es110m22   10m 22min:  VO2 (STDP;L/min)         Char      4
es110m23   10m 23min:  VO2 (STDP;L/min)         Char      4
es110m24   10m 24min:  VO2 (STDP;L/min)         Char      4
es110m25   10m 25min:  VO2 (STDP;L/min)         Char      4
es110mmp   10m 5minMP: VO2 (STDP;L/min)         Char      4
es110mmx   10m Max:    VO2 (STDP;L/min)         Char      4
es110mun   10m 3minUp: VO2 (STDP;L/min)         Char      4
es110n1    10n 1min:   Heart rate (beats/min)   Char      3
es110n2    10n 2min:   Heart rate (beats/min)   Char      3
es110n3    10n 3min:   Heart rate (beats/min)   Char      3
es110n4    10n 4min:   Heart rate (beats/min)   Char      3
es110n5    10n 5min:   Heart rate (beats/min)   Char      3
es110n6    10n 6min:   Heart rate (beats/min)   Char      3
es110n7    10n 7min:   Heart rate (beats/min)   Char      3
es110n8    10n 8min:   Heart rate (beats/min)   Char      3
es110n9    10n 9min:   Heart rate (beats/min)   Char      3
es110n10   10n 10nin:  Heart rate (beats/min)   Char      3
es110n11   10n 11min:  Heart rate (beats/min)   Char      3
es110n12   10n 12min:  Heart rate (beats/min)   Char      3
es110n13   10n 13min:  Heart rate (beats/min)   Char      3
es110n14   10n 14min:  Heart rate (beats/min)   Char      3
es110n15   10n 15min:  Heart rate (beats/min)   Char      3
es110n16   10n 16min:  Heart rate (beats/min)   Char      3
es110n17   10n 17min:  Heart rate (beats/min)   Char      3
es110n18   10n 18min:  Heart rate (beats/min)   Char      3
es110n19   10n 19min:  Heart rate (beats/min)   Char      3
es110n20   10n 20min:  Heart rate (beats/min)   Char      3
es110n21   10n 21min:  Heart rate (beats/min)   Char      3
es110n22   10n 22min:  Heart rate (beats/min)   Char      3
es110n23   10n 23min:  Heart rate (beats/min)   Char      3
es110n24   10n 24min:  Heart rate (beats/min)   Char      3
es110n25   10n 25min:  Heart rate (beats/min)   Char      3
es110o1    10o 1min:   Respiratory rate         Char      2
es110o2    10o 2min:   Respiratory rate         Char      2
es110o3    10o 3min:   Respiratory rate         Char      2
es110o4    10o 4min:   Respiratory rate         Char      2
es110o5    10o 5min:   Respiratory rate         Char      2
es110o6    10o 6min:   Respiratory rate         Char      2
es110o7    10o 7min:   Respiratory rate         Char      2
es110o8    10o 8min:   Respiratory rate         Char      2
es110o9    10o 9min:   Respiratory rate         Char      2
es110o10   10o 10oin:  Respiratory rate         Char      2
es110o11   10o 11min:  Respiratory rate         Char      2
es110o12   10o 12min:  Respiratory rate         Char      2
es110o13   10o 13min:  Respiratory rate         Char      2
es110o14   10o 14min:  Respiratory rate         Char      2
es110o15   10o 15min:  Respiratory rate         Char      2
es110o16   10o 16min:  Respiratory rate         Char      2
es110o17   10o 17min:  Respiratory rate         Char      2
es110o18   10o 18min:  Respiratory rate         Char      2
es110o19   10o 19min:  Respiratory rate         Char      2
es110o20   10o 20min:  Respiratory rate         Char      2
es110o21   10o 21min:  Respiratory rate         Char      2
es110o22   10o 22min:  Respiratory rate         Char      2
es110o23   10o 23min:  Respiratory rate         Char      2
es110o24   10o 24min:  Respiratory rate         Char      2
es110o25   10o 25min:  Respiratory rate         Char      2
```

```
ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:               908
Variables:                  535

Variable                                              Variable
  Name       Variable Label                   Type    Length    Format

es110p1     10p 1min:   SBP  (mm Hg)          Char       3
es110p2     10p 2min:   SBP  (mm Hg)          Char       3
es110p3     10p 3min:   SBP  (mm Hg)          Char       3
es110p4     10p 4min:   SBP  (mm Hg)          Char       3
es110p5     10p 5min:   SBP  (mm Hg)          Char       3
es110p6     10p 6min:   SBP  (mm Hg)          Char       3
es110p7     10p 7min:   SBP  (mm Hg)          Char       3
es110p8     10p 8min:   SBP  (mm Hg)          Char       3
es110p9     10p 9min:   SBP  (mm Hg)          Char       3
es110p10    10p 10pin:  SBP  (mm Hg)          Char       3
es110p11    10p 11min:  SBP  (mm Hg)          Char       3
es110p12    10p 12min:  SBP  (mm Hg)          Char       3
es110p13    10p 13min:  SBP  (mm Hg)          Char       3
es110p14    10p 14min:  SBP  (mm Hg)          Char       3
es110p15    10p 15min:  SBP  (mm Hg)          Char       3
es110p16    10p 16min:  SBP  (mm Hg)          Char       3
es110p17    10p 17min:  SBP  (mm Hg)          Char       3
es110p18    10p 18min:  SBP  (mm Hg)          Char       3
es110p19    10p 19min:  SBP  (mm Hg)          Char       3
es110p20    10p 20min:  SBP  (mm Hg)          Char       3
es110p21    10p 21min:  SBP  (mm Hg)          Char       3
es110p22    10p 22min:  SBP  (mm Hg)          Char       3
es110p23    10p 23min:  SBP  (mm Hg)          Char       3
es110p24    10p 24min:  SBP  (mm Hg)          Char       3
es110p25    10p 25min:  SBP  (mm Hg)          Char       3
es110q1     10q 1min:   DBP  (mm Hg)          Char       3
es110q2     10q 2min:   DBP  (mm Hg)          Char       3
es110q3     10q 3min:   DBP  (mm Hg)          Char       3
es110q4     10q 4min:   DBP  (mm Hg)          Char       3
es110q5     10q 5min:   DBP  (mm Hg)          Char       3
es110q6     10q 6min:   DBP  (mm Hg)          Char       3
es110q7     10q 7min:   DBP  (mm Hg)          Char       3
es110q8     10q 8min:   DBP  (mm Hg)          Char       3
es110q9     10q 9min:   DBP  (mm Hg)          Char       3
es110q10    10q 10qin:  DBP  (mm Hg)          Char       3
es110q11    10q 11min:  DBP  (mm Hg)          Char       3
es110q12    10q 12min:  DBP  (mm Hg)          Char       3
es110q13    10q 13min:  DBP  (mm Hg)          Char       3
es110q14    10q 14min:  DBP  (mm Hg)          Char       3
es110q15    10q 15min:  DBP  (mm Hg)          Char       3
es110q16    10q 16min:  DBP  (mm Hg)          Char       3
es110q17    10q 17min:  DBP  (mm Hg)          Char       3
es110q18    10q 18min:  DBP  (mm Hg)          Char       3
es110q19    10q 19min:  DBP  (mm Hg)          Char       3
es110q20    10q 20min:  DBP  (mm Hg)          Char       3
es110q21    10q 21min:  DBP  (mm Hg)          Char       3
es110q22    10q 22min:  DBP  (mm Hg)          Char       3
es110q23    10q 23min:  DBP  (mm Hg)          Char       3
es110q24    10q 24min:  DBP  (mm Hg)          Char       3
es110q25    10q 25min:  DBP  (mm Hg)          Char       3
es110r1     10r 1min:   Borg (breathlessness) Char       3
es110r2     10r 2min:   Borg (breathlessness) Char       3
es110r3     10r 3min:   Borg (breathlessness) Char       3
es110r4     10r 4min:   Borg (breathlessness) Char       3
es110r5     10r 5min:   Borg (breathlessness) Char       3
es110r6     10r 6min:   Borg (breathlessness) Char       3
es110r7     10r 7min:   Borg (breathlessness) Char       3
es110r8     10r 8min:   Borg (breathlessness) Char       3
```

ES   -   Form ES Exercise ABG Substudy Testing (rev 1)

Date file created: 13 May 2006
Observations: 908
Variables: 535

```
Variable                                            Variable
  Name        Variable Label                  Type   Length   Format

es110r9      10r 9min:   Borg (breathlessness)      Char       3
es110r10     10r 10rin:  Borg (breathlessness)      Char       3
es110r11     10r 11min:  Borg (breathlessness)      Char       3
es110r12     10r 12min:  Borg (breathlessness)      Char       3
es110r13     10r 13min:  Borg (breathlessness)      Char       3
es110r14     10r 14min:  Borg (breathlessness)      Char       3
es110r15     10r 15min:  Borg (breathlessness)      Char       3
es110r16     10r 16min:  Borg (breathlessness)      Char       3
es110r17     10r 17min:  Borg (breathlessness)      Char       3
es110r18     10r 18min:  Borg (breathlessness)      Char       3
es110r19     10r 19min:  Borg (breathlessness)      Char       3
es110r20     10r 20min:  Borg (breathlessness)      Char       3
es110r21     10r 21min:  Borg (breathlessness)      Char       3
es110r22     10r 22min:  Borg (breathlessness)      Char       3
es110r23     10r 23min:  Borg (breathlessness)      Char       3
es110r24     10r 24min:  Borg (breathlessness)      Char       3
es110r25     10r 25min:  Borg (breathlessness)      Char       3
es110s1      10s 1min:   Borg (leg muscle fatigue)  Char       3
es110s2      10s 2min:   Borg (leg muscle fatigue)  Char       3
es110s3      10s 3min:   Borg (leg muscle fatigue)  Char       3
es110s4      10s 4min:   Borg (leg muscle fatigue)  Char       3
es110s5      10s 5min:   Borg (leg muscle fatigue)  Char       3
es110s6      10s 6min:   Borg (leg muscle fatigue)  Char       3
es110s7      10s 7min:   Borg (leg muscle fatigue)  Char       3
es110s8      10s 8min:   Borg (leg muscle fatigue)  Char       3
es110s9      10s 9min:   Borg (leg muscle fatigue)  Char       3
es110s10     10s 10sin:  Borg (leg muscle fatigue)  Char       3
es110s11     10s 11min:  Borg (leg muscle fatigue)  Char       3
es110s12     10s 12min:  Borg (leg muscle fatigue)  Char       3
es110s13     10s 13min:  Borg (leg muscle fatigue)  Char       3
es110s14     10s 14min:  Borg (leg muscle fatigue)  Char       3
es110s15     10s 15min:  Borg (leg muscle fatigue)  Char       3
es110s16     10s 16min:  Borg (leg muscle fatigue)  Char       3
es110s17     10s 17min:  Borg (leg muscle fatigue)  Char       3
es110s18     10s 18min:  Borg (leg muscle fatigue)  Char       3
es110s19     10s 19min:  Borg (leg muscle fatigue)  Char       3
es110s20     10s 20min:  Borg (leg muscle fatigue)  Char       3
es110s21     10s 21min:  Borg (leg muscle fatigue)  Char       3
es110s22     10s 22min:  Borg (leg muscle fatigue)  Char       3
es110s23     10s 23min:  Borg (leg muscle fatigue)  Char       3
es110s24     10s 24min:  Borg (leg muscle fatigue)  Char       3
es110s25     10s 25min:  Borg (leg muscle fatigue)  Char       3
es110t1      10t 1min:   Load (watts)               Char       3
es110t2      10t 2min:   Load (watts)               Char       3
es110t3      10t 3min:   Load (watts)               Char       3
es110t4      10t 4min:   Load (watts)               Char       3
es110t5      10t 5min:   Load (watts)               Char       3
es110t6      10t 6min:   Load (watts)               Char       3
es110t7      10t 7min:   Load (watts)               Char       3
es110t8      10t 8min:   Load (watts)               Char       3
es110t9      10t 9min:   Load (watts)               Char       3
es110t10     10t 10tin:  Load (watts)               Char       3
es110t11     10t 11min:  Load (watts)               Char       3
es110t12     10t 12min:  Load (watts)               Char       3
es110t13     10t 13min:  Load (watts)               Char       3
es110t14     10t 14min:  Load (watts)               Char       3
es110t15     10t 15min:  Load (watts)               Char       3
es110t16     10t 16min:  Load (watts)               Char       3
```

```
ES    -    Form ES  Exercise ABG Substudy Testing (rev 1)

Date file created:  13 May 2006
Observations:               908
Variables:                  535

Variable                                              Variable
  Name       Variable Label                   Type    Length    Format

es110t17   10t 17min:  Load (watts)           Char       3
es110t18   10t 18min:  Load (watts)           Char       3
es110t19   10t 19min:  Load (watts)           Char       3
es110t20   10t 20min:  Load (watts)           Char       3
es110t21   10t 21min:  Load (watts)           Char       3
es110t22   10t 22min:  Load (watts)           Char       3
es110t23   10t 23min:  Load (watts)           Char       3
es110t24   10t 24min:  Load (watts)           Char       3
es110t25   10t 25min:  Load (watts)           Char       3
form       Form abreviation and revision number  Char    4
formdate   # 4 cnvrtd to #days from RZ/scr strt  Num     8
newnett    New NETT patient ID no.            Char       5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char   3
```

Exercise ABG Substudy Testing

> **Purpose:** To record ABG Exercise Substudy data.
> **When:** Visits s1 or s2 (there must be an assessment no more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days after the s3 test), f06, f12, f24, f36, f48, and f60.
> **Administered by:** Substudy staff and Clinic Coordinator.
> **Instructions:** This form supplements form EW for recording the additional data required by the Exercise ABG Substudy. It does not replace form EW for substudy patients. Form EW is required for all substudy patients. Attach PFT laboratory report and ABG report.

A. Clinic, visit, and patient identification

1. Clinic ID: ____ ____ ____ ____

2. Patient ID: ____ ____ ____ ____ ____

3. Patient name code:

   ____ ____ ____ ____ ____

4. Visit date *(date of exercise test)*:

   ____ ____-____ ____ ____-____ ____
   day   mon   year

5. Visit code: ____ ____ ____

6. Form and revision: **e s 1**

B. Test session

7. Barometric pressure: ____ ____ ____
   mmHg

8. Temperature

   a. Degrees: ____ ____ ____

   b. Scale:
   °C   (1)
   °F   (2)

9. System (valve) dead space (V_D):

   ____ ____ ____
   ml

C. Test session

10. **Data**

Record values to level of precision indicated at right of column labeled "Quantity".

	Quantity		5 min on mouth-piece	3 min unloaded	1 min	2 min	3 min	4 min	5 min	6 min	7 min	8 min
a.	Was testing done? *(key Yes=1, No=2)*		Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
b.	SpO_2 (%)	XXX	N/A	N/A								
c.	PaO_2 (mmHg)	XXX										
d.	$PaCO_2$ (mmHg)	XX										
e.	pH	X.XX										
f.	HCO_3 (mEq/L)	XX.X										
g.	BE	± XX.X										
h.	SaO_2 (%)	XX.X										
i.	$FeCO_2$ (fraction)	X.XXX										
j.	$\dot{V}$e (BTPS; L/min)	XX.X	N/A	N/A								

10.   Data (cont'd)

Record values to level of precision indicated at right of column labeled "Quantity".

Quantity		5 min on mouth-piece	3 min unloaded	1 min	2 min	3 min	4 min	5 min	6 min	7 min	8 min
k.	Vt (BTPS; L) X.XXX	N/A	N/A								
l.	$\dot{V}CO_2$ (STPD; L/min) X.XXX	N/A	N/A								
m.	VO_2 (STPD; L/min) X.XXX										
n.	Heart rate (beats/min) XXX	N/A	N/A								
o.	Respiratory rate (breaths/min) XX	N/A	N/A								
p.	Systolic blood pressure (mmHg) XXX	N/A	N/A								
q.	Diastolic blood pressure (mmHg) XXX	N/A	N/A								
r.	Borg (breathlessness) XX.X	N/A	N/A								
s.	Borg (leg muscle fatigue) XX.X	N/A	N/A								
t.	Load (watts) XXX	N/A	N/A								

NETT

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10. **Data** (cont'd)

Record values to level of precision indicated at right of column labeled "Quantity".

Quantity		9 min	10 min	11 min	12 min	13 min	14 min	15 min	16 min	17 min	18 min
a. Was testing done? *(key Yes=1, No=2)*		Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
b. SpO_2 (%)	XXX										
c. PaO_2 (mmHg)	XXX										
d. $PaCO_2$ (mmHg)	XX										
e. pH	X.XX										
f. HCO_3 (mEq/L)	XX.X										
g. BE	± XX.X										
h. SaO_2 (%)	XX.X										
i. $FeCO_2$ (fraction)	X.XXX										
j. $\dot{V}e$ (BTPS; L/min)	XX.X										

10. Data (cont'd)

Record values to level of precision indicated at right of column labeled "Quantity".

Quantity		9 min	10 min	11 min	12 min	13 min	14 min	15 min	16 min	17 min	18 min
k. Vt (BTPS; L)	X.XXX										
l. $\dot{V}CO_2$ (STPD; L/min)	X.XXX										
m. VO_2 (STPD; L/min)	X.XXX										
n. Heart rate (beats/min)	XXX										
o. Respiratory rate (breaths/min)	XX										
p. Systolic blood pressure (mmHg)	XXX										
q. Diastolic blood pressure (mmHg)	XXX										
r. Borg (breathlessness)	XX.X										
s. Borg (leg muscle fatigue)	XX.X										
t. Load (watts)	XXX										

10. **Data** (cont'd)

Record values to level of precision indicated at right of column labeled "Quantity".

Quantity	19 min	20 min	21 min	22 min	23 min	24 min	25 min	Maximum
a. Was testing done? *(key Yes=1, No=2)*	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
b. SpO_2 (%) XXX								N/A
c. PaO_2 (mmHg) XXX								
d. $PaCO_2$ (mmHg) XX								
e. pH X.XX								
f. HCO_3 (mEq/L) XX.X								
g. BE ± XX.X								
h. SaO_2 (%) XX.X								
i. $FeCO_2$ (fraction) X.XXX								
j. $\dot{V}e$ (BTPS; L/min) XX.X								N/A

Quantity		19 min	20 min	21 min	22 min	23 min	24 min	25 min	Maximum
k. Vt (BTPS; L)	X.XXX								N/A
l. $\dot{V}CO_2$ (STPD; L/min)	X.XXX								N/A
m. VO_2 (STPD; L/min)	X.XXX								
n. Heart rate (beats/min)	XXX								N/A
o. Respiratory rate (breaths/min)	XX								N/A
p. Systolic blood pressure (mmHg)	XXX								N/A
q. Diastolic blood pressure (mmHg)	XXX								N/A
r. Borg (breathlessness)	XX.X								N/A
s. Borg (leg muscle fatigue)	XX.X								N/A
t. Load (watts)	XXX								N/A

NETT

D. Administrative information

11. Pulmonary Function Coordinator PIN:

____ ____ ____

12. Pulmonary Function Coordinator signature:

_____

13. Clinic Coordinator PIN: ____ ____ ____

14. Clinic Coordinator signature:

_____

15. Date form reviewed:

____ ___-____ ____ ___-____ ____
day   mon   year

```
EW    -    Form EW  Exercise Testing (rev 1)

Date file created:  13 May 2006
Observations:              6292
Variables:                   64

Variable                                                    Variable
  Name        Variable Label                      Type      Length     Format

ew108       8   Initial s1/s2 exercise test session?   Char        1
ew109       9   Initial s1/s2 post BD MVV (L/min BTP   Char        4
ew110       10  Ramp rate for exercise test            Char        1
ew111       11  2+ hours since last meal               Char        1
ew112       Bronchodilator in past 4 hours             Char        1
ew113       13  Pulse oximeter manufacturer/model      Char        1
ew114       14  Pulse oximeter ECG-gated               Char        1
ew115       15  Pulse oximeter probe site              Char        1
ew117       17  Staff terminated test before end       Char        1
ew120       20  Pre-randomization assessment           Char        1
ew121       21  Exercise test reason for exclusion     Char        1
ew116a1     16  5 min rest: test completed             Char        1
ew116a2     16  3 min unloaded: test completed         Char        1
ew116a3     16  Maximum: test completed                Char        1
ew116b3     16  Maximum: ramp rate                     Char        2
ew116c1     16  5 min rest: SpO2 (%)                   Char        3
ew116c2     16  3 min unloaded: SpO2 (%)               Char        3
ew116c3     16  Maximum: SpO2 (%)                      Char        3
ew116d1     16  5 min rest: Ve (BTPS, L/min)           Char        3
ew116d2     16  3 min unloaded: Ve (BTPS, L/min)       Char        3
ew116d3     16  Maximum: Ve (BTPS, L/min)              Char        3
ew116e1     16  5 min rest: Vt (BTPS, L)               Char        3
ew116e2     16  3 min unloaded: Vt (BTPS, L)           Char        3
ew116e3     16  Maximum: Vt (BTPS, L)                  Char        3
ew116f1     16  5 min rest: VCO2 (STPD, L/min)         Char        4
ew116f2     16  3 min unloaded: VCO2 (STPD, L/min)     Char        4
ew116f3     16  Maximum: VCO2 (STPD, L/min)            Char        4
ew116g1     16  5 min rest: heart rate (beats/min)     Char        3
ew116g2     16  3 min unloaded: heart rate (beats/mi   Char        3
ew116g3     16  Maximum: heart rate (beats/min)        Char        3
ew116h1     16  5 min rest: respiratory rate (breath   Char        2
ew116h2     16  3 min unloaded: respiratory rate (br   Char        2
ew116h3     16  Maximum: respiratory rate (breaths/m   Char        2
ew116i1     16  5 min rest: systolic BP (mmHg)         Char        3
ew116i2     16  3 min unloaded: systolic BP (mmHg)     Char        3
ew116i3     16  Maximum: systolic BP (mmHg)            Char        3
ew116j1     16  5 min rest: diastolic BP (mmHg)        Char        3
ew116j2     16  3 min unloaded: diastolic BP (mmHg)    Char        3
ew116j3     16  Maximum: diastolic BP (mmHg)           Char        3
ew116k1     16  5 min rest: Borg breathlessness        Char        3
ew116k2     16  3 min unloaded: Borg breathlessness    Char        3
ew116k3     16  Maximum: Borg breathlessness           Char        3
ew116l1     16  5 min rest: Borg leg muscle fatigue    Char        3
ew116l2     16  3 min unloaded: Borg leg muscle fati   Char        3
ew116l3     16  Maximum: Borg leg muscle fatigue       Char        3
ew116n      16  BP measured by transducer or cuff      Char        1
ew118a      18a Cadence dropped <40 rpm                Char        1
ew118b      18b Mental confusion                       Char        1
ew118c      18c EKG arrhythmia                         Char        1
ew118d      18d EKG ischemia                           Char        1
ew118e      18e Elevated blood pressure                Char        1
ew118f      18f Low blood pressure                     Char        1
ew118g      18g Other reason for termination           Char        1
ew119a      19a Dyspnea or SOB                         Char        1
ew119b      19b Dizziness or lightheadedness           Char        1
ew119c      19c Chest pain                             Char        1
ew119d      19d Leg fatigue                            Char        1
ew119e      19e Leg cramps or leg pain                 Char        1
```

```
EW    -    Form EW  Exercise Testing (rev 1)

Date file created:  13 May 2006
Observations:              6292
Variables:                   64

Variable                                       Variable
  Name        Variable Label                 Type   Length     Format

ew119f       19f Other reason for termination   Char       1
form         Form abreviation and revision number  Char    4
formdate     #4 cnvrtd to #days from RZ/scr strt   Num     8
maxwk        Maximum: load (watts)             Num        8
newnett      New NETT patient ID no.           Char       5
visit        s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char  3
```

Exercise Testing

This form is used for non Exercise ABG Substudy patients.

Purpose: To guide technician in completion of maximum exercise testing and to record data.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days after the s3 test), f06, f12, f18, f24, f36, f48, and f60.

Administered by: PFT laboratory staff, Pulmonary Function Coordinator, and Clinic Coordinator.

Instructions: All patients will use supplemental oxygen (FiO_2=0.3) during exercise testing. **Initial exercise test:** Ramp rate is determined from post BD MVV. **All subsequent exercise tests:** Use the ramp rate used at the initial NETT exercise test. **All exercise tests:** If patient and staff member terminate the test simultaneously, the staff member's reason for termination takes precedence over the patient's (ie, record only the staff member's reason for termination). Attach report from PFT laboratory.

A. Clinic, visit, and patient identification

1. Clinic ID: ____ ____ ____ ____

2. Patient ID: ____ ____ ____ ____

3. Patient name code:

____ ____ ____ ____ ____

4. Visit date *(date of exercise test)*:

____ ____ - ____ ____ - ____ ____
   day   mon   year

5. Visit code: ____ ____ ____

6. Form and revision: **e** **w** **1**

7. Lab ID:

____ ____ - ____ - ____
    Clinic ID   Lab ID

B. Information needed before starting test *(Complete these items before sending the patient for testing)*

8. Is this the initial (s1/s2) NETT exercise test session:

     Yes   No
    (1)   (* 2)

              10. ◄

(*Use the ramp rate used for the initial (s1/s2) exercise test session.)

9. Initial (s1/s2) post bronchodilator MVV:

____ ____ ____ • ____
      L/min BTPS

Note: If post BD MVV ≤ 40.0, ramp=5 watts/min; if post BD MVV > 40.0, ramp=10 watts/min.

10. Ramp rate for exercise test:
    5 watts/min   (3)
    10 watts/min   (4)

C. Checks on patient condition

11. Has it been at least 2 hours since the patient last ate a meal:
               Yes   No
              (1)   (* 2)
                  Stop ◄

(*Wait until it has been at least 2 hours since the patient last ate a meal; then check Yes and proceed with testing.)

12. Has the patient taken a short-acting bronchodilator within 4 hours:
               Yes   No
              (1)   (* 2)
                 Stop ◄

(*Administer short-acting bronchodilator; and then check Yes and proceed with testing after 15 minutes.)

13. Pulse oximeter manufacturer/model:

Criticare 504 USP	($_1$)
Nellcor N200	($_2$)
Ohmeda Biox 3740	($_3$)
Sensormedic 767501-102	($_4$)
Other *(specify)*	($_5$)

_____
manufacturer/model

14. Is pulse oximeter ECG-gated:

Yes   No
($_1$)   ($_2$)

15. Pulse oximeter probe site:

Finger	($_1$)
Ear	($_2$)
Forehead	($_3$)
Other *(specify)*	($_4$)

_____
probe site

D. Test session

Instructions (use Form ES if in Exercise ABG substudy):

- Calibrate system with supplemental oxygen in place
- Start patient on oxygen; patient will breath with Venturi mask without mouthpiece or noseclip (31% oxygen)
- Instruct patient on exercise test procedures
- Instruct patient on Borg scale data collection
- Patient rests for 10 minutes in chair
- Transfer patient to cycle; have patient breath on system mouthpiece with noseclip for 5 minutes (FiO_2=0.3)
- Obtain resting values (next to last 20 second average [regardless of duration of rest period]) administer Borg scale for perceived breathlessness and leg muscle fatigue; remind patient that 0 means no breathlessness (leg muscle fatigue) and 10 means the maximum he/she has ever felt
- Technician assists patient in starting (optional)
- Patient performs unloaded pedaling for 3 minutes; patient may pedal at any cadence between 40-70 rpm
- Obtain values for 3 minutes unloaded pedaling (last 20 second average [regardless of duration of unloaded pedaling]); administer Borg scale for perceived breathlessness and leg muscle fatigue; remind patient that 0 means no breathlessness (leg muscle fatigue) and 10 means the maximum he/she has ever felt

- Start ramped portion of test
- Encourage patient at each minute of exercise
- Patient should indicate when he/she is within one minute of maximal exertion by raising his/her finger
- After patient gives 1 minute signal, encourage in 20 second increments
- Test ends when cadence drops below 40 rpm and does not return, when patient requests end, or when staff member terminates test for safety
- Administer Borg scale for perceived breathlessness and leg muscle fatigue; remind patient that 0 means no breathlessness (leg muscle fatigue) and 10 means the maximum he/she has ever felt
- When test ends, transfer patient to chair and place on appropriate oxygen flow
- Maximal watts on the cycle should be recorded when workload is removed; all other maximal data will be from the final 20 second interval unless the $\dot{V}CO_2$ value in the final 20 second interval is an outlier; in that case, choose a representative value of $\dot{V}CO_2$ from the last minute and report values from this 20 second interval
- Note: Patient is ineligible if unable to complete 3 minutes of unloaded pedaling

16. Data

Record values to level of precision indicated at right of column labeled "Quantity".

Quantity	5 min rest on mouthpiece/cycle	3 min unloaded	Maximum
Was testing completed? *(key Yes=1, No=2)*	Yes / No	Yes / No	Yes / No
Ramp rate *(circle one)*	N/A	N/A	05 or 10
SpO_2 (%) XXX			
$\dot{V}e$ (BTPS; L/min) XX.X			
Vt (BTPS; L) X.XX			
$\dot{V}CO_2$ (STPD; L/min) X.XXX			
Heart rate (beats/min) XXX			
Respiratory rate (breaths/min) XX			
Systolic blood pressure (mmHg) XXX			
Diastolic blood pressure (mmHg) XXX			
Borg (breathlessness) XX.X			
Borg (leg muscle fatigue) XX.X			
Load (watts) XXX	N/A	N/A	
How was blood pressure measured: *key Transducer=1, Cuff=2*		Transducer or Cuff	

17. Did the staff member terminate the test session:

Yes	No
(₁)	(₂)

19. ◄┘

18. Reason staff member terminated the test session *(check all that apply)*

a. Cadence dropped below 40 rpm and did not return: (₁)
b. Mental confusion: (₁)
c. EKG arrhythmia: (₁)
d. EKG ischemia: (₁)
e. Elevated blood pressure: (₁)
f. Low blood pressure: (₁)
g. Other (specify): (₁)

_____
specify

20. ◄┘

19. Reason patient terminated the test session *(check all that apply)*

a. Dyspnea or shortness of breath: (₁)
b. Dizziness or lightheadedness: (₁)
c. Chest pain: (₁)
d. Leg fatigue: (₁)
e. Leg cramps or leg pain: (₁)
f. Other (specify): (₁)

_____
specify

20. Is this a pre-randomization assessment:

Yes	No
(₁)	(₂)

22. ◄┘

21. Should the patient be excluded based on any findings from the exercise test:

Yes	No
(* ₁)	(₂)

Stop◄┘   **22.** ◄┘

If yes, specify:

_____
specify

(*The patient is ineligible for NETT; complete Section E, Administrative information.)

E. Administrative information

22. Pulmonary Function Coordinator PIN:

_____ _____ _____

23. Pulmonary Function Coordinator signature:

_____

24. Clinic Coordinator PIN: _____ _____ _____

25. Clinic Coordinator signature:

_____

26. Date form reviewed:

_____ _____-_____ _____ _____-_____ _____
       day   mon   year

```
GA     -     Form GA  Enrollment in Extension Year (rev 1)

Date file created:  13 May 2006
Observations:              664
Variables:                   5

Variable                                        Variable
  Name       Variable Label                     Type   Length     Format

form        Form abreviation and revision number   Char       4
formdate    #4 converted to #days from RZ/scr strt  Num        8
ga108       8  Visit consented patient consented to  Char       2
newnett     New NETT patient ID no.                Char       5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char       3
```

Purpose: To document enrollment in extension year of NETT and to identify visit to be completed in extension year.

When: Once consent has been obtained.

Administered by: Clinic Coordinator.

Respondent: None.

Instructions: This form documents enrollment in the extension year. It should be completed once consent has been obtained. It must be keyed before other extension visit forms are keyed since it documents that consent was obtained for the entension year visit. While protocol calls for f06, f24, f36, and f60 to be done in person, some patients may consent only to do these visits by telephone. Hence item 8 allows for telephone visits for f06, f24, f36, and f60.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date form initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: n ___ ___

6. Form & revision: g   a   1

B. Consent and visit identification

7. Has the patient signed a consent statement for a NETT extension year visit:

Yes   No
(1)   (2)
STOP ←↵

8. What visit did the patient consent to do:

f06 in person	(01)
f06 by telephone *(Form HI only)*	(02)
f12 by telephone *(Form HI only)*	(03)
f24 in person	(04)
f24 by telephone *(Form HI only)*	(05)
f36 in person	(06)
f36 by telephone *(Form HI only)*	(07)
f48 by telephone *(Form HI only)*	(08)
f60 in person	(09)
f60 by telephone *(Form HI only)*	(10)

9. Date on which patient signed consent form *(date consent was received if patient did not date the consent form):*

___ ___ - ___ ___ - ___ ___
day   mon   year

C. Administrative information

10. Clinic Coordinator PIN: ___ ___ ___

11. Clinic Coordinator signature:

_____

12. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
HB    -    Form HB  Baseline History (rev 3)

Date file created:  13 May 2006
Observations:              2325
Variables:                   82

Variable                                              Variable
  Name       Variable Label                    Type    Length    Format

form        Form abreviation and revision number    Char       4
formdate    #4 cnvrtd to #days from RZ/scr strt     Num        8
hb307       7   1st degree relatives have emphysema Char       1
hb308       8   1st degree relatives have congenita Char       1
hb309       9   1st degree relatives have asthma    Char       1
hb310       10  1st degree relatives have other lun Char       1
hb311       11  Sputum -- clinically significant am Char       1
hb312       12  Usual weight (lbs)                  Char       3
hb313       13  10% of usual weight (lbs)           Char       2
hb314       14  No. lbs lost in past 3 months       Char       3
hb315       15  Lost >10% of weight in past 3 month Char       1
hb316       16  Was weight loss planned?            Char       1
hb318       18  Weight loss exclusion?              Char       1
hb319       19  Frequency of alcohol use            Char       1
hb320       20  Sleep apnea dx in past 12 months    Char       1
hb321       21  Sleepy during day/working hours     Char       1
hb322       22  Snore loudly                        Char       1
hb323       23  Current oral steroids               Char       1
hb324       24  Current inhaled steroids            Char       1
hb325       25  Current bronchodilators             Char       1
hb328       28  Oxygen used at rest--not sleeping   Char       1
hb330       30  Oxygen used on exertion             Char       1
hb332       32  Oxygen used when sleeping           Char       1
hb333       33  Oxygen dose used (L/min)            Char       2
hb336       36  No. nights in hospital in past 3 mo Char       2
hb337       37  No. nights in nonacute care in past Char       2
hb338       38  No. times seen in ER in past 3 mos  Char       2
hb339       39  No. times seen MD in office in past Char       3
hb340       40  No. times seen health care provider Char       3
hb341       41  No. times seen health care worker i Char       3
hb342       42  No. times seen health equip tech in Char       3
hb343       43  Other medical contacts in past 3mos Char       1
hb344       44  Illness restricted family activitie Char       1
hb345       45  Hrs in past week of help from famil Char       3
hb326a      26a Long-acting sympathomimetics       Char       1
hb326b      26b Short-acting sympathomimetics      Char       1
hb326c      26c Anticholinergics                   Char       1
hb326d      26d Oral sympathomimetics              Char       1
hb326e      26e Theophylline                       Char       1
hb326f      26f Other bronchodilator               Char       1
hb327a      27a Analgesics                         Char       1
hb327aa     27aa Vitamins                          Char       1
hb327ab     27ab Other type of medication          Char       1
hb327ac     27ac None                              Char       1
hb327b      27b Antacids                           Char       1
hb327c      27c Antianxiety medications            Char       1
hb327d      27d Antiarrhythmics                    Char       1
hb327e      27e Antibiotics                        Char       1
hb327f      27f Anticoagulants                     Char       1
hb327g      27g Antidepressants                    Char       1
hb327h      27h Antifungals                        Char       1
hb327i      27i Antihistamines                     Char       1
hb327j      27j Antitussives                       Char       1
hb327k      27k Antihypertensives                  Char       1
hb327l      27l Aspirin                            Char       1
hb327m      27m Decongestants                      Char       1
hb327n      27n Digitalis                          Char       1
hb327o      27o Diuretics                          Char       1
```

```
HB    -    Form HB  Baseline History (rev 3)

Date file created:  13 May 2006
Observations:              2325
Variables:                   82

Variable                                          Variable
  Name        Variable Label                 Type  Length   Format

hb327p      27p  Expectorants                 Char     1
hb327q      27q  H2 blockers                  Char     1
hb327r      27r  Hormone replacement          Char     1
hb327s      27s  Insulin                      Char     1
hb327t      27t  Mucolytics                   Char     1
hb327u      27u  Nasal steroids               Char     1
hb327v      27v  Nitroglycerine               Char     1
hb327w      27w  Non steroidal anti-inflammatory  Char  1
hb327x      27x  Ophthalmic medications       Char     1
hb327y      27y  Oral beta blockers           Char     1
hb327z      27z  Sedatvies                    Char     1
hb334a      34a  None                         Char     1
hb334b      34b  Compressed gas (tanks)       Char     1
hb334c      34c  Liquid                       Char     1
hb334d      34d  Concentrator                 Char     1
hb334e      34e  Other type of oxygen         Char     1
hb335a      35a  Nasal cannula                Char     1
hb335b      35b  Oxymizer                     Char     1
hb335c      35c  Pendant                      Char     1
hb335d      35d  Transtracheal                Char     1
hb335e      35e  Pulse/demand delivery device Char     1
hb335f      35f  Other type of delivery device  Char   1
newnett     New NETT patient ID no.          Char     5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char  3
```

NETT
Baseline History

> **Purpose**: To collect baseline medical history information about the patient.
>
> **When**: At visit s1.
>
> **Administered by**: Clinic Coordinator.
>
> **Respondent**: Patient.
>
> **Instructions**: Collect information by interview. If the patient is found to be ineligible after completing items 1-18, complete section J, Administrative information, but do not key this form.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date this form is initiated)*:

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: s 1 ___

6. Form & revision: h b 3

B. Family history

7. Do any of your first degree relatives (parent, brother, sister, child) have emphysema:

Yes ($_1$)
No ($_2$)
Don't know ($_3$)

8. Do any of your first degree relatives (parent, brother, sister, child) have congenital emphysema (eg, alpha-1 antitrypsin deficiency):

Yes ($_1$)
No ($_2$)
Don't know ($_3$)

9. Do any of your first degree relatives (parent, brother, sister, child) have asthma:

Yes ($_1$)
No ($_2$)
Don't know ($_3$)

10. Do any of your first degree relatives (parent, brother, sister, child) have a lung disease other than emphysema or asthma:

Yes ($_1$)

_____
specify

No ($_2$)
Don't know ($_3$)

C. Respiratory symptoms

11. Ask the patient how much sputum (phlegm) he/she usually brings up each day; is the amount clinically significant:

Yes ($_1$)   No ($_2$)
└─ STOP

D. Weight loss in past 3 months

12. What is your usual weight: ___ ___ ___
lbs

13. 10% of usual weight *(divide item 12 by 10)*:

___ ___
lbs

14. How much weight have you lost in the past 3 months *(enter 000 if none lost)*:

___ ___ ___
lbs

15. Has the patient lost more than 10% of his/her usual weight in the past 3 months (ie, is the value for item 14 greater than the value for item 13):

Yes ($_1$)   No ($_2$)
19. ─┘

16. Was the weight loss planned:

Yes ($_1$)   No ($_2$)
19. ─┘

17. What is the explanation for the weight loss:

_____

18. Should the patient be excluded based on the weight loss:

Yes   No

($_1$)   ($_2$)

└─STOP

E. Alcohol use

19. How frequently do you drink alcohol:

Daily or almost every day	($_1$)
3 or 4 times per week	($_2$)
Once or twice a week	($_3$)
Once or twice a month	($_4$)
Less than once a month	($_5$)
Never	($_6$)

H. Sleep disturbances and daytime fatigue

20. Have you, in the past 12 months, been diagnosed by a physician as having sleep apnea:

Yes   No

($_1$)   ($_2$)

21. How often are you troubled by sleepiness in the daytime or during working hours:

Never	($_1$)
Less than once per week	($_2$)
1-2 times per week	($_3$)
3-6 times per week	($_4$)
Every day	($_5$)

22. Do you snore loudly during sleep (that is, do those who live with you say that you snore or are noisy when you are asleep):

Yes	($_1$)
No	($_2$)
Not sure	($_3$)

G. Medication use

23. Are you currently prescribed oral steroids (eg, prednisone):

Yes   No

($_1$)   ($_2$)

[24.]

_____
specify medication and strength

_____
specify dose (amount and frequency)

(*Note that patients are required to be in stable condition on less than 20 mg of prednisone or its equivalent (see NETT Chart 1) per day at the time of randomization.)

24. Are you currently prescribed inhaled steroids (eg, Vanceril [beclomethasone]):

Yes   No

($_1$)   ($_2$)

[25.]

_____
specify medication and strength

_____
specify dose (amount and frequency)

25. Are you currently prescribed any bronchodilator medications:

Yes   No

($_1$)   ($_2$)

[27.]

26. What types of bronchodilator medication are you currently prescribed *(check all that apply)*

a. Long-acting sympathomimetics (beta-agonists such as Serevent [salmeterol]):   ($_1$)

b. Short-acting sympathomimetics (beta-agonists such as Ventolin, Proventil [albuterol]):   ($_1$)

c. Anticholinergics (such as Atrovent [ipratropium bromide]):   ($_1$)

d. Oral sympathomimetics (such as Brethaire [terbutaline]):   ($_1$)

e. Theophylline: ($_1$)

f. Other *(specify)*:   ($_1$)

_____
specify

27. What other types of medications are you <u>currently</u> prescribed

a. Analgesics: (₁)

b. Antacids: (₁)

c. Antianxiety medications: (₁)

d. Antiarrhythmics: (₁)

e. Antibiotics: (₁)

f. Anticoagulants: (₁)

g. Antidepressants: (₁)

h. Antifungals: (₁)

i. Antihistamines: (₁)

j. Antitussives: (₁)

k. Antihypertensives: (₁)

l. Aspirin: (₁)

m. Decongestants: (₁)

n. Digitalis: (₁)

o. Diuretics: (₁)

p. Expectorants: (₁)

q. H₂ blockers: (₁)

r. Hormone replacement: (₁)

s. Insulin (₁)

t. Mucolytics: (₁)

u. Nasal steroids: (₁)

v. Nitroglycerine: (₁)

w. Non steroidal anti-inflammatory: (₁)

x. Ophthalmic medications: (₁)

y. Oral beta blockers: (₁)

z. Sedatives: (₁)

aa. Vitamins: (₁)

ab. Other types of medication *(specify)*: (₁)

_____
specify

ac. None: (₁)

H. Oxygen use

28. Do you use oxygen at rest (not sleeping):

Yes No
(₁) (₂)
30. ⌐

29. Dose:

_____
specify exact L/min dose or range used

30. Do you use oxygen on exertion:

Yes No
(₁) (₂)
32. ⌐

31. Dose:

_____
specify exact L/min dose or range used

32. Do you use oxygen when sleeping:

Yes No
(₁) (₂)
34. ⌐

33. Dose: ___ • ___
L/min

34. What type of oxygen do you use currently *(check all that apply)*

a. None: (₁)
36. ⌐

b. Compressed gas (tanks): (₁)

c. Liquid: (₁)

d. Concentrator: (₁)

e. Other *(specify)*: (₁)

_____
specify

35. What type of delivery device do you use currently *(check all that apply)*

a. Nasal cannula: (₁)

b. Oxymizer: (₁)

c. Pendant: (₁)

d. Transtracheal: (₁)

e. Pulse/demand delivery device: (₁)

f. Other *(specify)*: (₁)

_____
specify

I. Health care in the past 3 months

36. How many nights in the past 3 months
have you stayed overnight in a hospital
or other acute care facility *(enter 00 if none)*:

___ ___
nights

37. How many nights in the past 3 months
have you stayed overnight in a
rehabilitation hospital, nursing home, or
other nonacute care facility *(enter 00 if none)*:

___ ___
nights

38. How many times in the past 3 months
have you been seen at an emergency
room (department), triage area, or urgent
care facility *(enter 00 if none)*:

___ ___
times

39. How many times in the past 3 months
have you visited a physician, physician's
assistant, or nurse in their office or have
you visited an outpatient clinic for any
reason *(exclude hospital stays, visits to subacute
care facilities, and emergency room, triage area,
or urgent care visits)*:

___ ___ ___
times

40. How many times in the past 3 months has
a health care professional (provider) (eg,
home health agency nurse, physical
therapist, occupational therapist) visited
you in your residence:

___ ___ ___
times

41. How many times in the past 3 months has
a health care service worker (eg, aide,
attendant) come to your home for health
reasons:

___ ___ ___
times

42. How many times in the past 3 months,
has a health equipment technician come
to your home to adjust, service, or care
for some item of health care equipment
used by you:

___ ___ ___
times

43. In the past 3 months, did you have any
visits or contacts with health care
workers other than those just mentioned:

Yes   No
(1)   (2)

44. ──┘

If yes, please describe:

_____

_____

_____

44. In the past 3 months, has your illness
required any family members or friends
to restrict their work or social activities:

Yes   No
(1)   (2)

45. About how many hours in the past week
have family members or friends spent in
helping with your care *(enter 000 if none)*:

___ ___ ___
hours

J. Administrative information

46. Clinic Coordinator PIN: ___ ___ ___

47. Clinic Coordinator signature:

_____

48. Date form reviewed:

___ ___-___ ___-___ ___
day   mon   year

```
HF    -    Form HF  Heart Function Summary (rev 4)

Date file created:  13 May 2006
Observations:           2788
Variables:                46

Variable                                            Variable
  Name      Variable Label                   Type   Length   Format

form       Form abreviation and revision number     Char      4
formdate   #4 converted to No. of days from RZ      Num       8
hf407      7   Resting EKG obtained                 Char      1
hf408      #8 cnvrtd to #days from RZ/scr strt      Num       8
hf409      9   EKG findings                         Char      1
hf410      10  Echocardiogram obtained              Char      1
hf411      #11 cnvrtd to #days from RZ/scr strt     Num       8
hf412      12  Mean RA pressure/tricuspid peak syst Char      1
hf413      13  Rt heart cath should be done?        Char      1
hf414      14  Estimated mean RA pressure           Char      1
hf415      15  Estimated tricuspid systolic peak ve Char      2
hf416      16  Calculated peak systolic PPA         Char      2
hf417      17  S1 assessment?                       Char      1
hf418      18  Peak systolic PPA >=45 mmHg          Char      1
hf419      19  Can LVEF be estimated?               Char      1
hf420      20  Estimated LVEF                       Char      1
hf421      21  Dobutamine-radionuclide scan done    Char      1
hf422      #22 cnvrtd to #days from RZ/scr strt     Num       8
hf423      23  Indication of coronary disease?      Char      1
hf424      24  Right heart catheterization done     Char      1
hf425      #25 cnvrtd to #days from RZ/scr strt     Num       8
hf427      27  Measured peak systolic PA<45 mmHg    Char      1
hf428      28  Measured mean PA pressure<35 mmHg    Char      1
hf429      29  Patient ineligible - catherization r Char      1
hf430      30  Evaluation by cardiologist done      Char      1
hf431      #31 cnvrtd to #days from RZ/scr strt     Num       8
hf433      33  Cardiologist's findings              Char      1
hf426a     26a Measured RA mean pressure (mmHg)     Char      2
hf426b     26b Measured systolic RV pressure (mmHg) Char      2
hf426bs    26b Sign - measured systolic RV pressure Char      1
hf426c     26c Measured diastolic RV pressure (mmHg Char      2
hf426d     26d Measured systolic PA pressure (mmHg) Char      2
hf426e     26e Measured diastolic PA pressure (mmHg Char      2
hf426f     26f Measured mean PA pressure (mmHg)     Char      2
hf426g     26g Measured PA occlusion pressure (mmHg Char      3
hf426h     26h Measured cardiac output (l/min)      Char      3
hf426i     26i Calculated PVR (dynes/sec/cm -5)     Char      3
hf432a     32a ECG abnormality                      Char      1
hf432b     32b Lft ventricular ejection fraction <4 Char      1
hf432c     32c Dobutamine-radionuclide scan finding Char      1
hf432d     32d S3 gallop on physical exam           Char      1
hf432e     32e >5 premature ventricular beats noted Char      1
hf432f     32f Unstable angina                      Char      1
hf432g     32g Other reason for evaluation          Char      1
newnett    New NETT patient ID no.                  Char      5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ   Char      3
```

Purpose: Record results of resting ECG, echocardiogram, cardiac scan, right heart catheterization (not the substudy), and evaluation by cardiologist.

When: Visits s1 and f06 (echocardiogram).

Administered by: Study Physician and Clinic Coordinator.

Respondent: None.

Instructions: Mark any relevant reports with the patient's ID number and name code and staple the reports to this form. If a STOP condition is checked and this is the s1 or rz assessment, the patient is ineligible. Complete Section G but do not key this form. Complete one Form HF prior to starting Core Rehabilitation; use visit ID code s1. If right heart catheterization and/or evaluation by a cardiologist are/is done post rehabilitation, update the visit s1 HF form prior to randomization to record the results of those evaluations.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: h f 4

B. Resting ECG

7. Was a resting ECG obtained *(visit s1 only):*

Yes (1)   No (2)
           10. ⬅

8. Date of resting ECG:

___ ___ - ___ ___ - ___ ___
day   mon   year

9. Characterize the findings from the resting ECG *(check only one):*

ECG findings are compatible with continued screening for NETT without further cardiac workup   (1)

ECG findings include cardiac rhythm other than sinus premature atrial contractions, > 5 premature ventricular beats/min or other finding that necessitates evaluation by a cardiologist prior to randomization   (†2)

ECG findings include abnormalities that are incompatible with participation in NETT *(specify3)*

🛑 ⬅

_____
specify

(†Patient must be evaluated by a cardiologist prior to randomization; clinic staff should judge the appropriateness of starting the patient in rehabilitation prior to completing the consultation.)

(*Patient is ineligible for NETT; skip to Section G.)

C. Echocardiogram

10. Was an echocardiogram obtained *(visits s1 and f06):*

Yes (1)   No (2)
           21. ⬅

11. Date of echocardiogram:

___ ___ - ___ ___ - ___ ___
day   mon   year

12. Could both RA pressure and tricuspid peak systolic velocity be estimated from the echocardiogram:

Yes (1)   No (2)

| 14. |◄─┘

13. When RA pressure and/or tricuspid peak systolic velocity cannot be estimated from the echocardiogram at visit s1, the study physician may judge whether to do right heart catheterization to rule out pulmonary hypertension: Does the study physician judge that right heart catheterization should be done to rule out pulmonary hypertension:

Yes (* 1)   No († 2)

| 19. |◄─┘ | 19. |◄─┘

(*If this is visit s1, patient must have right heart catheterization done before randomization; clinic staff should judge the appropriateness of starting the patient in rehabilitation prior to completing the right heart catheterization.)

(†Right heart catheterization is not required to be done.)

14. Estimated mean RA pressure *(check only one)*

5 mmHg:	(1)
10 mmHg:	(2)
15 mmHg:	(3)

15. Estimated tricuspid peak systolic velocity:

___ • ___
m/sec

16. Calculated peak systolic P_{PA} *(item 14 + 4* (item 15)^2):*

___ ___
mmHg

17. Is this the s1 assessment:

Yes (1)   No (2)

| 19. |◄─┘

18. Is calculated peak systolic P_{PA} *(item 16)* 45 mmHg or greater:

Yes (* 1)   No (2)

(*The patient must have right heart catheterization before randomization to rule out pulmonary hypertension.)

19. Can left ventricular ejection fraction (LVEF) be estimated from the echocardiogram:

Yes (1)   No (* 2)

| 21. |◄─┘

(*If this is visit s1, patient must be evaluated by a cardiologist prior to randomization.)

20. Estimated left ventricular ejection fraction (LVEF)

| ≥ 45%: | (1) |
| < 45%: | (* 2) |

(*If this is visit s1, patient must be evaluated by a cardiologist prior to randomization; clinic staff should judge the appropriateness of starting the patient in rehabilitation prior to completing the cardiologist evaluation.)

D. Dobutamine-radionuclide scan findings

21. Was a dobutamine-radionuclide scan done *(visit s1 only):*

Yes (1)   No (2)

| 24. |◄─┘

22. Date of dobutamine-radionuclide scan:

___ ___ - ___ ___ - ___ ___
day   mon   year

23. Do the dobutamine-radionuclide scan findings indicate coronary artery disease or ventricular dysfunction:

Yes (* 1)   No (2)

(*Patient must be evaluated by a cardiologist prior to randomization; clinic staff should judge the appropriateness of starting the patient in rehabilitation prior to completing the consultation.)

E. Right heart catheterization

24. Was right heart catheterization done *(visit s1):*

Yes (1)   No (2)

| 30. |◄─┘

25. Date of right heart catheterization:

___ ___ - ___ ___ - ___ ___
day   mon   year

26. Right heart catheterization findings (end expiration)

    a. Measured RA mean pressure: _____ mmHg

    b. Measured systolic RV pressure *(circle + or -):*

        + - _____ mmHg

    c. Measured diastolic RV pressure: _____ mmHg

    d. Measured peak systolic PA pressure: _____ mmHg

    e. Measured diastolic PA pressure: _____ mmHg

    f. Measured mean PA pressure: _____ mmHg

    g. Measured PA occlusion (wedge) pressure:

        _____ mmHg.

    h. Measured cardiac output:

        ___ ___ • ___ L/min

    i. Calculated PVR: ___ ___ ___ dynes/sec/cm^{-5}.

27. Is measured peak systolic PA pressure *(item 26d)* < 45 mmHg (< 50 mmHg in Denver):

    (Yes $_1$)   (* $_2$) No   STOP ←

    (*The patient is ineligible for NETT; skip to section G.)

28. Is measured mean PA pressure *(item 26f)* < 35 mmHg (< 38 in Denver):

    (Yes $_1$)   (* $_2$) No   STOP ←

    (*The patient is ineligible for NETT; skip to section G.)

29. Do any right heart catheterization findings render the patient ineligible for NETT:

    Yes *(specify):*   (* $_1$)   STOP ←

    _____
    specify reason for ineligibility

    (*The patient is ineligible for NETT; skip to Section G.)

    No   ($_2$)

F. Cardiologist evaluation

30. Was the patient evaluated by a cardiologist *(visit s1):*

    (Yes $_1$)   (No $_2$)
              35. ←

31. Date of cardiologist's evaluation:

    _____ - _____ - _____
    day   mon   year

32. Reasons for cardiologist evaluation *(check all that apply)*

    a. ECG abnormality: ($_1$)

    b. Left ventricular ejection fraction < 45% or unable to evaluate LVEF: ($_1$)

    c. Dobutamine-radionuclide scan findings: ($_1$)

    d. S$_3$ gallop on physical exam: ($_1$)

    e. > 5 premature ventricular beats/min: ($_1$)

    f. Unstable angina: ($_1$)

    g. Other *(specify):*   ($_1$)

    _____
    specify

33. Cardiologist's findings:

    Cleared for surgery with respect to cardiac condition   ($_1$)

    Ineligible for surgery *(specify reason):*   (* $_2$)   STOP ←

    _____
    specify

    (*The patient is ineligible for NETT.)

34. Name of cardiologist *(please print):*

_____

G. Administrative information

35. Study Physician PIN: ___ ___ ___

36. Study Physician signature:

_____

37. Clinic Coordinator PIN: ___ ___ ___

38. Clinic Coordinator signature:

_____

39. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
HI    -    Form HI  Interim History (rev 3)

Date file created:  13 May 2006
Observations:            5186
Variables:                 75

Variable                                              Variable
  Name        Variable Label                    Type  Length    Format

form        Form abreviation and revision number   Char      4
formdate    #4 cnvrtd to #days from RZ/scr strt    Num       8
hi307       #7 cnvrtd to $#days from RZ/scr strt   Char      7
hi308       8    Visit code of last history form   Char      3
hi309       #9 cnvrtd to #days from RZ/scr strt    Char      7
hi310       #10 cnvrtd to #days from RZ/scr strt   Char      7
hi311       11   Current residence                 Char      1
hi313       13   No. of nights in hospital         Char      3
hi314       14   No. of nights in non-acute facility Char    3
hi315       15   No. of visits to ER               Char      3
hi316       16   No. of visits to physician        Char      3
hi317       17   No. of home visits by health care p Char    3
hi318       18   No. of home visits by health care w Char    3
hi319       19   No. of home visits by equipment tec Char    3
hi320       20   Visits by other health care workers Char    1
hi321       21   Family activities restricted      Char      1
hi322       22   Hours family spent caring for patie Char    3
hi324       24   Smoked since item 10 date         Char      1
hi325       25   Patient using any nicotine products Char    1
hi326       26   Health problems since last visit  Char      1
hi327       27   Currently taking oral steroids    Char      1
hi328       28   Currently taking inhaled steroids Char      1
hi329       29   Currently using bronchodilators   Char      1
hi332       32   Use oxygen at rest (not sleeping) Char      1
hi334       34   Use oxygen on exertion            Char      1
hi336       36   Use oxygen when sleeping          Char      1
hi337       37   Dose O2 used when sleeping        Char      2
hi330a      30a  Long-acting sympathomimetics      Char      1
hi330b      30b  Short-acting sympathomimetics     Char      1
hi330c      30c  Anticholinergics                  Char      1
hi330d      30d  Oral sympathomimetics             Char      1
hi330e      30e  Theophylline                      Char      1
hi330f      30f  Other bronchodilator              Char      1
hi331a      31a  Analgesics                        Char      1
hi331aa     31aa Vitamins                          Char      1
hi331ab     31ab Other type of medication          Char      1
hi331ac     31ac None                              Char      1
hi331b      31b  Antacids                          Char      1
hi331c      31c  Antianxiety medications           Char      1
hi331d      31d  Antiarrhythmics                   Char      1
hi331e      31e  Antibiotics                       Char      1
hi331f      31f  Anticoagulants                    Char      1
hi331g      31g  Antidepressants                   Char      1
hi331h      31h  Antifungals                       Char      1
hi331i      31i  Antihistamines                    Char      1
hi331j      31j  Antitussives                      Char      1
hi331k      31k  Antihypertensives                 Char      1
hi331l      31l  Aspirin                           Char      1
hi331m      31m  Decongestants                     Char      1
hi331n      31n  Digitalis                         Char      1
hi331o      31o  Diuretics                         Char      1
hi331p      31p  Expectorants                      Char      1
hi331q      31q  H2 blockers                       Char      1
hi331r      31r  Hormone replacement               Char      1
hi331s      31s  Insulin                           Char      1
hi331t      31t  Mucolytics                        Char      1
hi331u      31u  Nasal steroids                    Char      1
hi331v      31v  Nitroglycerine                    Char      1
```

```
HI    -    Form HI  Interim History (rev 3)

Date file created:  13 May 2006
Observations:            5186
Variables:                 75

Variable                                           Variable
  Name        Variable Label                 Type  Length    Format

hi331w       31w  Non steroidal anti-inflammatory  Char     1
hi331x       31x  Ophthalmic medications           Char     1
hi331y       31y  Oral beta blockers               Char     1
hi331z       31z  Sedatvies                        Char     1
hi338a       38a  None                             Char     1
hi338b       38b  Compressed gas (tanks)           Char     1
hi338c       38c  Liquid                           Char     1
hi338d       38d  Concentrator                     Char     1
hi338e       38e  Other                            Char     1
hi339a       39a  Nasal cannula                    Char     1
hi339b       39b  Oxymizer                         Char     1
hi339c       39c  Pendant                          Char     1
hi339d       39d  Transtracheal                    Char     1
hi339e       39e  Pulse/demand delivery device     Char     1
hi339f       39f  Other type of delivery device    Char     1
newnett      New NETT patient ID no.               Char     5
visit        s1,s2,s3,rz,n,fxx where xx=mos from RZ Char    3
```

NETT

Purpose: To collect history data since the previous visit.

When: Visits s2 (if more than 42 days after the s1 history), s3, rz (if more than 21 days after the s3 history), f06, f12, f24, f36, f48, f60.

Administered by: Clinic Coordinator.

Respondent: Patient.

Instructions: Collect information, supplementing with medical record review as needed.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date of interview):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: __h__ __i__ __3__

B. Interval identification

7. Date of last history *(Form HB or HI):*

___ ___ - ___ ___ - ___ ___
day   mon   year

8. Visit code for last history *(Form HB or HI):*

___ ___ ___

9. Date 3 months ago:

___ ___ - ___ ___ - ___ ___
day   mon   year

10. Most recent of dates in items 7 and 9:

___ ___ - ___ ___ - ___ ___
day   mon   year

C. Current residence

11. Where are you currently residing *(check one):*

Private home, apartment, or condominium	(1)
Retirement home	(2)
Nursing home	(3)
Rehabilitation facility	(4)
Acute care hospital	(5)
Other *(specify)*	(6)

_____
specify

12. What is your current zip code:

___ ___ ___ ___ ___
zip code

D. Health care utilization since the last regularly scheduled visit or in the past 3 months, whichever interval is shorter

13. How many nights since the date in item 10 have you stayed overnight in a hospital or other acute care facility *(include nights for NETT LVRS):*

___ ___ ___
nights

14. How many nights since the date in item 10 have you stayed overnight in a rehabilitation hospital, nursing home, or other nonacute care facility:

___ ___ ___
nights

15. How many times since the date in item 10 have you been seen at an emergency room (department), triage area, or urgent care facility:

___ ___
times

16. How many times since the date in item 10 have you visited a physician, physician's assistant, or nurse in their office or have you visited an outpatient clinic for any reason *(exclude hospital stays, visits to nonacute care facilities, and emergency room, triage area, or urgent care visits; exclude NETT screening, followup, and rehab visits; by followup visits we mean the regularly scheduled NETT in person followup visits, eg, f06, f12, f24, etc):*

__ __
times.

17. How many times since the date in item 10 has a health care professional (provider) (eg, home health agency nurse, physical therapist, occupational therapist) visited you in your residence:

__ __
times.

18. How many times since the date in item 10 has a health care service worker (eg, aide, attendant) come to your residence for health reasons:

__ __
times.

19. How many times since the date in item 10 has a health equipment technician come to your residence to adjust, service, or care for some item of health equipment used by you:

__ __
times.

20. Since the date in item 10, have you had any visits with health care workers other than those just mentioned *(exclude NETT screening, followup, and rehab visits; by followup visits we mean the regularly scheduled NETT in person followup visits, eg, f06, f12, f24, etc):*

Yes   No
($_1$)   ($_2$)
           21. ◄┘

If yes, describe:

_____

_____

_____

21. Since the date in item 10, has your illness required any family members or friends to restrict their work or social activities *(include efforts to help you participate in NETT):*

Yes   No
($_1$)   ($_2$)

22. About how many hours in the past week have family members or friends spent in helping with your care *(include efforts to help you participate in NETT):*

__ __ __
hours.

23. What pulmonary rehabilitation activities have you completed since the date in item 10 *(at s3, summarize as ''Core and Cont rehab''):*

_____
specify

_____
specify

_____
specify

E. Interim history

24. Have you smoked any tobacco products since the date in item 10:

Yes   No
($*_1$)   ($_2$)

(*If visit is prior to randomization, patient is ineligible.)

25. Is the patient using nicotine products:

Yes   No
($_1$)   ($_2$)

26. Have you had any serious health problem since your last visit:

Yes   No
($_1$)   ($_2$)
           27. ◄┘

If yes, specify:

_____
specify

27. Are you currently prescribed oral steroids
(eg, prednisone):

Yes (* ₁) No (₂)

28. ◄

_____
specify medication

_____
specify dose (amount and frequency)

(*If this is s2, s3, or rz, the patient must be stable on 20 mg or less prednisone or its equivalent (see NETT Chart 1) per day at the time of randomization; otherwise the patient is ineligible for NETT. Clinic staff need to judge whether the patient should continue with screening.)

28. Are you currently prescribed inhaled
steroids (eg, Vanceril [beclomethasone]):

Yes (₁) No (₂)

29. ◄

_____
specify medication

_____
specify dose (amount and frequency)

29. Are you currently prescribed any
bronchodilator medications:

Yes (₁) No (₂)

31. ◄

30. What types of bronchodilator medication
are you currently prescribed *(check all that apply)*

a. Long-acting sympathomimetics
(beta-agonists such as Serevent
[salmeterol]):   (₁)

b. Short-acting sympathomimetics
(beta-agonists such as Ventolin,
Proventil [albuterol]):   (₁)

c. Anticholinergics (such as Atrovent
[ipratropium bromide]):   (₁)

d. Oral sympathomimetics (such as
Brethaire [terbutaline]):   (₁)

e. Theophylline: (₁)

f. Other *(specify):*   (₁)

_____
specify

31. What other types of medications are you
<u>currently</u> prescribed

a. Analgesics: (₁)

b. Antacids: (₁)

c. Antianxiety medications: (₁)

d. Antiarrhythmics: (₁)

e. Antibiotics: (₁)

f. Anticoagulants: (₁)

g. Antidepressants: (₁)

h. Antifungals: (₁)

i. Antihistamines: (₁)

j. Antitussives: (₁)

k. Antihypertensives: (₁)

l. Aspirin: (₁)

m. Decongestants: (₁)

n. Digitalis: (₁)

o. Diuretics: (₁)

p. Expectorants: (₁)

q. H_2 blockers: (₁)

r. Hormone replacement: (₁)

s. Insulin   (₁)

t. Mucolytics: (₁)

u. Nasal steroids: (₁)

v. Nitroglycerine: (₁)

w. Non steroidal anti-inflammatory: (₁)

x. Ophthalmic medications: (₁)

y. Oral beta blockers: (₁)

z. Sedatives: (₁)

aa. Vitamins: (₁)

ab. Other types of medication *(specify):* (₁)

_____
specify

ac. None: (₁)

F. Oxygen use

32. Do you use oxygen at rest (not sleeping):

Yes   No
(1)   (2)
34. ◄

33. Dose:

_____
specify exact L/min or range used

34. Do you use oxygen on exertion:

Yes   No
(1)   (2)
36. ◄

35. Dose:

_____
specify exact L/min dose or range used

36. Do you use oxygen when sleeping:

Yes   No
(1)   (2)
38. ◄

37. Dose:

_____ • _____
L/min

38. What type of oxygen do you use currently *(check all that apply)*

a. None: (1)
40. ◄

b. Compressed gas (tanks):   (1)

c. Liquid: (1)

d. Concentrator: (1)

e. Other *(specify):*   (1)

_____
specify

39. What type of delivery device do you use currently *(check all that apply)*

a. Nasal cannula: (1)

b. Oxymizer: (1)

c. Pendant: (1)

d. Transtracheal: (1)

e. Pulse/demand delivery device: (1)

f. Other *(specify):*   (1)

_____
specify

G. Next followup visit

40. Was the next followup visit scheduled *(answer No if this is the s3/rz visit):*

Yes   No
(1)   (2)
42. ◄

41. Date and time of next followup visit:

a. Date:

_____ - _____ - _____
day   mon   year

b. Time:

_____ : _____   (1)   (2)
hour   minute   am   pm

H. Administrative information

42. Clinic Coordinator PIN: ___ ___ ___

43. Clinic Coordinator signature:

_____

44. Date form reviewed:

_____ - _____ - _____
day   mon   year

```
IACPARAM    -    Selected IAC parameters

Date file created:  13 May 2006
Observations:            2236
Variables:                 19

Variable                                              Variable
  Name        Variable Label                 Type     Length     Format

da950       Alpha diff at -950,(RU+LU)-(RL+LL)        Num          8
dul950      Upper-lower diff in % emph at -950        Num          8
dul960      Upper-lower diff in % emph at -960        Num          8
ida950      Binary -950alpha dif,1=up lob pred,0=oth  Num          8
idul950     BinU-Ldiff,%emph,-950,1=uplob pred,0=oth  Num          8
idul960     BinU-Ldiff,%emph,-960,1=uplob pred,0=oth  Num          8
newnett     New NETT patient ID no.                   Char         5
rul950      Upper/lower ratio of % emph at -950       Num          8
rul960      Upper/lower ratio of % emph at -960       Num          8
visit       Visit code: s1, f06, or f36               Char         3
wa950       Alpha at -950 for whole lung              Num          8
wcpe950     % emphysema in core at -950               Num          8
wcpe960     % emphysema in core at -960               Num          8
wpe950      % emphysema in whole lung at -950         Num          8
wpe960      % emphysema in whole lung at -960         Num          8
wppe950     % emphysema in peel at -950               Num          8
wppe960     % emphysema in peel at -960               Num          8
wrcp950     Core/peel ratio of % emph at -950         Num          8
wrcp960     Core/peel ratio of % emph at -960         Num          8
```

```
INELIG    -    Reasons for ineligibility

Date file created:  13 May 2006
Observations:              2557
Variables:                   31

Variable                                        Variable
  Name         Variable Label            Type    Length      Format

inel1        PFT and/or CT scan          Num        8
inel2        Smoking                     Num        8
inel3        Bronchietasis               Num        8
inel4        Pleural/interstitial disease Num       8
inel5        Pulmonary nodule            Num        8
inel6        MI or CHF                   Num        8
inel7        Other cardiac               Num        8
inel8        Hypertension                Num        8
inel9        Cardiac dysrhthmia          Num        8
inel10       Previous thoracotomy        Num        8
inel11       Laser or LVRS               Num        8
inel12       Syncope                     Num        8
inel13       6 min walk or exercise      Num        8
inel14       Hx/physical exam            Num        8
inel15       Blood/urine                 Num        8
inel16       BMI                         Num        8
inel17       Weight loss                 Num        8
inel18       Sputum                      Num        8
inel19       Prednisone                  Num        8
inel20       Other disease               Num        8
inel21       Physician/surgeon judgement Num        8
inel22       Current illness             Num        8
inel23       Giant bulla                 Num        8
inel24       Refused procedure/rz        Num        8
inel25       Unable to complete PFTs     Num        8
inel26       Needed >6 liter O2          Num        8
inel27       Insurance issues            Num        8
inel28       Deceased                    Num        8
inel29       Time window issues          Num        8
inel30       Participating in other study Num       8
newnett      New NETT patient ID no.     Char       5
```

```
JA     -     Form JA  Patient Closeout Tasks Prior to NETT Extension (rev 1)

Date file created:  13 May 2006
Observations:             1208
Variables:                  10

Variable                                              Variable
  Name       Variable Label                   Type    Length     Format

form       Form abreviation and revision number    Char       4
formdate   #4 cnvrtd to #days frm RZ/scr strt      Num        8
ja107      7   Contact patient about closeout      Char       2
ja108      8   Informed about end of original follo Char      1
ja109      9   Invited to followup extension       Char       1
ja110      10  Informed about possible contact     Char       1
ja111      11  Informed about how to hear NETT resu Char       1
ja112      12  Informed about how to hear MEDICARE Char       1
newnett    New NETT patient ID no.                 Char       5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char       3
```

> **Purpose**: To document completion of closeout tasks for each randomized patient in NETT. The closeout tasks re-
> late to the completion of visits under the original NETT followup schedule, continuation of followup through
> 2003 and possibly beyond 2003, and dissemination of what is known about plans to publish the NETT results and
> about the status of Medicare's coverage decision on LVRS.
>
> **When**: Between 01 Oct 2002 and 31 Dec 2002.
>
> **Administered by**: Clinic Coordinator.
>
> **Respondent**: None.
>
> **Instructions**: Complete this form for each randomized patient in NETT, regardless of vital status. You may start
> completing forms on 01 Oct 2002 and should finish by 31 Dec 2002. If the individual patient cannot be informed
> directly, either because of death or disability or other reason, you should inform a family member or the patient's
> representative, if available. The information can be conveyed in person, by telephone, or by mail.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date of conversation or date material is mailed):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: n ___ ___

6. Form & revision: j a 1

B. Completion of closeout tasks

7. Did you contact the patient about closeout:

Yes, directly, spoke with patient either in person or by telephone ($_{01}$)

Yes, directly, mailed material to patient ($_{02}$)

Yes, indirectly, spoke with or mailed material to someone who agreed to convey the information to the patient ($_{03}$)

No, patient or family or representative has asked not to be contacted by NETT staff ($_{04}$)
13. ◄—

No, can't locate patient, family member, or representative ($_{05}$)
13. ◄—

No, patient is incapable of understanding the information; information was provided to family member or patient's representative ($_{06}$)
11. ◄—

No, patient is incapable of understanding the information and no family member or patient's representative can be located ($_{07}$)
13. ◄—

No, patient is deceased; information was provided to family member or patient's representative ($*_{08}$)
11. ◄—

No, patient is deceased and no family member or patient's representative can be located ($*_{09}$)
13. ◄—

No, other *(specify)* ($_{10}$)
13. ◄—

_____
specify

(*Complete form DR if not already done and obtain death certificate and complete form DF if not already done.)

8. Was the patient informed that the originally planned schedule of followup was ending in Dec 2002:

Yes ($_1$)   No ($_2$)

9. Was the patient invited to participate in the extension of followup for Jan 2003 through Dec 2003:

Yes ($_1$)   No ($_2$)

10. Was the patient informed that NETT might contact him/her about continuing followup beyond 2003:

Yes (1)   No (2)

11. Was the patient (or family or representative) informed how they would hear about NETT results:

Yes (1)   No (2)

12. Was patient (or family or representative) informed how they would hear about the Medicare coverage decision:

Yes (1)   No (2)

C. Administrative information

13. Clinic Coordinator PIN: ___ ___ ___

14. Clinic Coordinator signature:

_____

15. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
LCORE    -    IAC left lung core file

Date file created:  13 May 2006
Observations:              2236
Variables:                  207

Variable                                              Variable
  Name         Variable Label                Type     Length     Format

ae50         No. of voxels above -50 HU in a region    Num        8
ae100        No. of voxels above -100 HU in a region   Num        8
ae150        No. of voxels above -150 HU in a region   Num        8
ae200        No. of voxels above -200 HU in a region   Num        8
ae250        No. of voxels above -250 HU in a region   Num        8
aint         Ankle intercept                           Num        8
airv         Volume of region that is air (ml)         Num        8
ankl         Ankle                                     Num        8
aslp         Ankle slope                               Num        8
be600        No. of voxels below -600 HU in a region   Num        8
be620        No. of voxels below -620 HU in a region   Num        8
be640        No. of voxels below -640 HU in a region   Num        8
be660        No. of voxels below -660 HU in a region   Num        8
be810        No. of voxels below -810 HU in a region   Num        8
be830        No. of voxels below -830 HU in a region   Num        8
be850        No. of voxels below -850 HU in a region   Num        8
be870        No. of voxels below -870 HU in a region   Num        8
be890        No. of voxels below -890 HU in a region   Num        8
be900        No. of voxels below -900 HU in a region   Num        8
be910        No. of voxels below -910 HU in a region   Num        8
be920        No. of voxels below -920 HU in a region   Num        8
be930        No. of voxels below -930 HU in a region   Num        8
be940        No. of voxels below -940 HU in a region   Num        8
be950        No. of voxels below -950 HU in a region   Num        8
be960        No. of voxels below -960 HU in a region   Num        8
ccutoff      See IAC Scan Analysis variables listing   Num        8
cvm          See IAC Scan Analysis variables listing   Num        8
cvsd         See IAC Scan Analysis variables listing   Num        8
cvxm         See IAC Scan Analysis variables listing   Num        8
cvxsd        See IAC Scan Analysis variables listing   Num        8
cvym         See IAC Scan Analysis variables listing   Num        8
cvysd        See IAC Scan Analysis variables listing   Num        8
cvzm         See IAC Scan Analysis variables listing   Num        8
cvzsd        See IAC Scan Analysis variables listing   Num        8
entityve     Histogram pgm version number              Char      18
fwhm         See IAC Scan Analysis variables listing   Num        8
histolef                                               Num        8
hlcreate     hlcreate cnvrtd to #days frm RZ/scr strt  Num        8
hu10         HU value below which 10% of voxels fall    Num        8
hu15         HU value below which 15% of voxels fall    Num        8
hu20         HU value below which 20% of voxels fall    Num        8
intercep     Value used to convert voxels into HU      Num        8
kint         Knee intercept                            Num        8
knee         See IAC Scan Analysis variables listing   Num        8
kslp         See IAC Scan Analysis variables listing   Num        8
kurt         Kurtosis                                  Num        8
lae50        No. of voxels above -50 HU in a region    Num        8
lae100       No. of voxels above -100 HU in a region   Num        8
lae150       No. of voxels above -150 HU in a region   Num        8
lae200       No. of voxels above -200 HU in a region   Num        8
lae250       No. of voxels above -250 HU in a region   Num        8
laint        Ankle intercept                           Num        8
lairv        Volume of region that is air (ml)         Num        8
lankl        Ankle                                     Num        8
laslp        Ankle slope                               Num        8
lbe600       No. of voxels below -600 HU in a region   Num        8
lbe620       No. of voxels below -620 HU in a region   Num        8
lbe640       No. of voxels below -640 HU in a region   Num        8
```

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LCORE    -    IAC left lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                               Variable
  Name       Variable Label                   Type     Length    Format

lbe660     No. of voxels below -660 HU in a region   Num        8
lbe810     No. of voxels below -810 HU in a region   Num        8
lbe830     No. of voxels below -830 HU in a region   Num        8
lbe850     No. of voxels below -850 HU in a region   Num        8
lbe870     No. of voxels below -870 HU in a region   Num        8
lbe890     No. of voxels below -890 HU in a region   Num        8
lbe900     No. of voxels below -900 HU in a region   Num        8
lbe910     No. of voxels below -910 HU in a region   Num        8
lbe920     No. of voxels below -920 HU in a region   Num        8
lbe930     No. of voxels below -930 HU in a region   Num        8
lbe940     No. of voxels below -940 HU in a region   Num        8
lbe950     No. of voxels below -950 HU in a region   Num        8
lbe960     No. of voxels below -960 HU in a region   Num        8
lcvm       See IAC Scan Analysis variables listing   Num        8
lcvsd      See IAC Scan Analysis variables listing   Num        8
lcvxm      See IAC Scan Analysis variables listing   Num        8
lcvxsd     See IAC Scan Analysis variables listing   Num        8
lcvym      See IAC Scan Analysis variables listing   Num        8
lcvysd     See IAC Scan Analysis variables listing   Num        8
lcvzm      See IAC Scan Analysis variables listing   Num        8
lcvzsd     See IAC Scan Analysis variables listing   Num        8
lfwhm      See IAC Scan Analysis variables listing   Num        8
lhu10      HU value below which 10% of voxels fall   Num        8
lhu15      HU value below which 15% of voxels fall   Num        8
lhu20      HU value below which 20% of voxels fall   Num        8
lkint      Knee intercept                            Num        8
lknee      See IAC Scan Analysis variables listing   Num        8
lkslp      See IAC Scan Analysis variables listing   Num        8
lkurt      Kurtosis                                  Num        8
lmean      Mean                                      Num        8
lmed       Median                                    Num        8
lsd        Standard deviation                        Num        8
lskew      Skewness                                  Num        8
ltisv      Region vol that is tissue & blood(ml)     Num        8
ltotv      Total volume of region (cubic ml)         Num        8
ltotvx     Total number of voxels in a region        Num        8
lvar       Variance                                  Num        8
mae50      No. of voxels above -50 HU in a region    Num        8
mae100     No. of voxels above -100 HU in a region   Num        8
mae150     No. of voxels above -150 HU in a region   Num        8
mae200     No. of voxels above -200 HU in a region   Num        8
mae250     No. of voxels above -250 HU in a region   Num        8
maint      Ankle intercept                           Num        8
mairv      Volume of region that is air (ml)         Num        8
mankl      Ankle                                     Num        8
maslp      Ankle slope                               Num        8
mbe600     No. of voxels below -600 HU in a region   Num        8
mbe620     No. of voxels below -620 HU in a region   Num        8
mbe640     No. of voxels below -640 HU in a region   Num        8
mbe660     No. of voxels below -660 HU in a region   Num        8
mbe810     No. of voxels below -810 HU in a region   Num        8
mbe830     No. of voxels below -830 HU in a region   Num        8
mbe850     No. of voxels below -850 HU in a region   Num        8
mbe870     No. of voxels below -870 HU in a region   Num        8
mbe890     No. of voxels below -890 HU in a region   Num        8
mbe900     No. of voxels below -900 HU in a region   Num        8
mbe910     No. of voxels below -910 HU in a region   Num        8
mbe920     No. of voxels below -920 HU in a region   Num        8
```

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LCORE   -   IAC left lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:               207

Variable                                            Variable
  Name       Variable Label                    Type  Length   Format

mbe930     No. of voxels below -930 HU in a region  Num      8
mbe940     No. of voxels below -940 HU in a region  Num      8
mbe950     No. of voxels below -950 HU in a region  Num      8
mbe960     No. of voxels below -960 HU in a region  Num      8
mcvm       See IAC Scan Analysis variables listing  Num      8
mcvsd      See IAC Scan Analysis variables listing  Num      8
mcvxm      See IAC Scan Analysis variables listing  Num      8
mcvxsd     See IAC Scan Analysis variables listing  Num      8
mcvym      See IAC Scan Analysis variables listing  Num      8
mcvysd     See IAC Scan Analysis variables listing  Num      8
mcvzm      See IAC Scan Analysis variables listing  Num      8
mcvzsd     See IAC Scan Analysis variables listing  Num      8
mean       Mean                                     Num      8
med        Median                                   Num      8
mfwhm      See IAC Scan Analysis variables listing  Num      8
mhu10      HU value below which 10% of voxels fall   Num      8
mhu15      HU value below which 15% of voxels fall   Num      8
mhu20      HU value below which 20% of voxels fall   Num      8
mkint      Knee intercept                           Num      8
mknee      See IAC Scan Analysis variables listing  Num      8
mkslp      See IAC Scan Analysis variables listing  Num      8
mkurt      Kurtosis                                 Num      8
mmean      Mean                                     Num      8
mmed       Median                                   Num      8
msd        Standard deviation                       Num      8
mskew      Skewness                                 Num      8
mtisv      Region vol that is tissue & blood(ml)    Num      8
mtotv      Total volume of region (cubic ml)        Num      8
mtotvx     Total number of voxels in a region       Num      8
mvar       Variance                                 Num      8
newnett    New NETT patient ID no.                  Char     5
passver                                             Char     13
scandate   scandate cnvrtd to #days frm RZ/scr strt Num      8
sd         Standard deviation                       Num      8
skew       Skewness                                 Num      8
slicethi   Slice thickness                          Char     14
tisv       Region vol that is tissue & blood(ml)    Num      8
totv       Total volume of region (cubic ml)        Num      8
totvx      Total number of voxels in a region       Num      8
uae50      No. of voxels above -50 HU in a region   Num      8
uae100     No. of voxels above -100 HU in a region  Num      8
uae150     No. of voxels above -150 HU in a region  Num      8
uae200     No. of voxels above -200 HU in a region  Num      8
uae250     No. of voxels above -250 HU in a region  Num      8
uaint      Ankle intercept                          Num      8
uairv      Volume of region that is air (ml)        Num      8
uankl      Ankle                                    Num      8
uaslp      Ankle slope                              Num      8
ube600     No. of voxels below -600 HU in a region  Num      8
ube620     No. of voxels below -620 HU in a region  Num      8
ube640     No. of voxels below -640 HU in a region  Num      8
ube660     No. of voxels below -660 HU in a region  Num      8
ube810     No. of voxels below -810 HU in a region  Num      8
ube830     No. of voxels below -830 HU in a region  Num      8
ube850     No. of voxels below -850 HU in a region  Num      8
ube870     No. of voxels below -870 HU in a region  Num      8
ube890     No. of voxels below -890 HU in a region  Num      8
ube900     No. of voxels below -900 HU in a region  Num      8
```

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LCORE    -    IAC left lung core file

Date file created:  13 May 2006
Observations:             2236
Variables:                 207

Variable                                              Variable
  Name        Variable Label                  Type    Length    Format

ube910      No. of voxels below -910 HU in a region   Num       8
ube920      No. of voxels below -920 HU in a region   Num       8
ube930      No. of voxels below -930 HU in a region   Num       8
ube940      No. of voxels below -940 HU in a region   Num       8
ube950      No. of voxels below -950 HU in a region   Num       8
ube960      No. of voxels below -960 HU in a region   Num       8
ucvm        See IAC Scan Analysis variables listing   Num       8
ucvsd       See IAC Scan Analysis variables listing   Num       8
ucvxm       See IAC Scan Analysis variables listing   Num       8
ucvxsd      See IAC Scan Analysis variables listing   Num       8
ucvym       See IAC Scan Analysis variables listing   Num       8
ucvysd      See IAC Scan Analysis variables listing   Num       8
ucvzm       See IAC Scan Analysis variables listing   Num       8
ucvzsd      See IAC Scan Analysis variables listing   Num       8
ufwhm       See IAC Scan Analysis variables listing   Num       8
uhu10       HU value below which 10% of voxels fall    Num       8
uhu15       HU value below which 15% of voxels fall    Num       8
uhu20       HU value below which 20% of voxels fall    Num       8
ukint       Knee intercept                            Num       8
uknee       See IAC Scan Analysis variables listing   Num       8
ukslp       See IAC Scan Analysis variables listing   Num       8
ukurt       Kurtosis                                  Num       8
umean       Mean                                      Num       8
umed        Median                                    Num       8
usd         Standard deviation                        Num       8
uskew       Skewness                                  Num       8
utisv       Region vol that is tissue & blood(ml)     Num       8
utotv       Total volume of region (cubic ml)         Num       8
utotvx      Total number of voxels in a region        Num       8
uvar        Variance                                  Num       8
var         Variance                                  Num       8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ  Char      3
vxsize      Voxel size                                Num       8
```

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LHOLE    -    IAC left lung holes file

Date file created:  13 May 2006
Observations:            2236
Variables:                 82

Variable                                                 Variable
  Name       Variable Label                     Type     Length     Format

alpha_1    At -950, see IAC Scan Analysis vbl list    Num         8
alpha_2    At -930, see IAC Scan Analysis vbl list    Num         8
alpha_3    At -910, see IAC Scan Analysis vbl list    Num         8
alpha_4    At -890, see IAC Scan Analysis vbl list    Num         8
alpha_5    At -870, see IAC Scan Analysis vbl list    Num         8
alpha_6    At -850, see IAC Scan Analysis vbl list    Num         8
c1_1       Y intercept at -950                        Num         8
c1_2       Y intercept at -930                        Num         8
c1_3       Y intercept at -910                        Num         8
c1_4       Y intercept at -890                        Num         8
c1_5       Y intercept at -870                        Num         8
c1_6       Y intercept at -850                        Num         8
cutoff_1   At -950, see IAC Scan Analysis vbl list    Num         8
cutoff_2   At -930, see IAC Scan Analysis vbl list    Num         8
cutoff_3   At -910, see IAC Scan Analysis vbl list    Num         8
cutoff_4   At -890, see IAC Scan Analysis vbl list    Num         8
cutoff_5   At -870, see IAC Scan Analysis vbl list    Num         8
cutoff_6   At -850, see IAC Scan Analysis vbl list    Num         8
entityve   Hole pgm version number                    Char        18
hwcreate   hwcreate cnvrtd to #days frm RZ/scr strt   Num         8
intercep   Value used to convert voxels into HU       Num         8
lalpha_1   At -950, see IAC Scan Analysis vbl list    Num         8
lalpha_2   At -930, see IAC Scan Analysis vbl list    Num         8
lalpha_3   At -910, see IAC Scan Analysis vbl list    Num         8
lalpha_4   At -890, see IAC Scan Analysis vbl list    Num         8
lalpha_5   At -870, see IAC Scan Analysis vbl list    Num         8
lalpha_6   At -850, see IAC Scan Analysis vbl list    Num         8
lc1_1      Y intercept at -950                        Num         8
lc1_2      Y intercept at -930                        Num         8
lc1_3      Y intercept at -910                        Num         8
lc1_4      Y intercept at -890                        Num         8
lc1_5      Y intercept at -870                        Num         8
lc1_6      Y intercept at -850                        Num         8
lcutoff1   At -950, see IAC Scan Analysis vbl list    Num         8
lcutoff2   At -930, see IAC Scan Analysis vbl list    Num         8
lcutoff3   At -910, see IAC Scan Analysis vbl list    Num         8
lcutoff4   At -890, see IAC Scan Analysis vbl list    Num         8
lcutoff5   At -870, see IAC Scan Analysis vbl list    Num         8
lcutoff_   At -850, see IAC Scan Analysis vbl list    Num         8
leftwhol                                              Num         8
malpha_1   At -950, see IAC Scan Analysis vbl list    Num         8
malpha_2   At -930, see IAC Scan Analysis vbl list    Num         8
malpha_3   At -910, see IAC Scan Analysis vbl list    Num         8
malpha_4   At -890, see IAC Scan Analysis vbl list    Num         8
malpha_5   At -870, see IAC Scan Analysis vbl list    Num         8
malpha_6   At -850, see IAC Scan Analysis vbl list    Num         8
mc1_1      Y intercept at -950                        Num         8
mc1_2      Y intercept at -930                        Num         8
mc1_3      Y intercept at -910                        Num         8
mc1_4      Y intercept at -890                        Num         8
mc1_5      Y intercept at -870                        Num         8
mc1_6      Y intercept at -850                        Num         8
mcutoff1   At -950, see IAC Scan Analysis vbl list    Num         8
mcutoff2   At -930, see IAC Scan Analysis vbl list    Num         8
mcutoff3   At -910, see IAC Scan Analysis vbl list    Num         8
mcutoff4   At -890, see IAC Scan Analysis vbl list    Num         8
mcutoff5   At -870, see IAC Scan Analysis vbl list    Num         8
mcutoff_   At -850, see IAC Scan Analysis vbl list    Num         8
```

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LHOLE    -    IAC left lung holes file

Date file created:  13 May 2006
Observations:            2236
Variables:                 82

Variable                                          Variable
  Name      Variable Label                   Type  Length    Format

newnett    New NETT patient ID no.           Char       5
passver                                      Char      13
scandate   scandate cnvrtd to #days frm RZ/scr strt  Num   8
slicethi   Slice thickness                   Char      14
ualpha_1   At -950, see IAC Scan Analysis vbl list   Num    8
ualpha_2   At -930, see IAC Scan Analysis vbl list   Num    8
ualpha_3   At -910, see IAC Scan Analysis vbl list   Num    8
ualpha_4   At -890, see IAC Scan Analysis vbl list   Num    8
ualpha_5   At -870, see IAC Scan Analysis vbl list   Num    8
ualpha_6   At -850, see IAC Scan Analysis vbl list   Num    8
uc1_1      Y intercept at -950               Num        8
uc1_2      Y intercept at -930               Num        8
uc1_3      Y intercept at -910               Num        8
uc1_4      Y intercept at -890               Num        8
uc1_5      Y intercept at -870               Num        8
uc1_6      Y intercept at -850               Num        8
ucutoff1   At -950, see IAC Scan Analysis vbl list   Num    8
ucutoff2   At -930, see IAC Scan Analysis vbl list   Num    8
ucutoff3   At -910, see IAC Scan Analysis vbl list   Num    8
ucutoff4   At -890, see IAC Scan Analysis vbl list   Num    8
ucutoff5   At -870, see IAC Scan Analysis vbl list   Num    8
ucutoff_   At -850, see IAC Scan Analysis vbl list   Num    8
visit      Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ  Char   3
vxsize     Voxel size                        Num        8
```

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LPEEL    -    IAC left lung peel file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                    Variable
  Name        Variable Label                      Type      Length      Format

ae50        No. of voxels above -50 HU in a region    Num         8
ae100       No. of voxels above -100 HU in a region   Num         8
ae150       No. of voxels above -150 HU in a region   Num         8
ae200       No. of voxels above -200 HU in a region   Num         8
ae250       No. of voxels above -250 HU in a region   Num         8
aint        Ankle intercept                           Num         8
airv        Volume of region that is air (ml)         Num         8
ankl        Ankle                                     Num         8
aslp        Ankle slope                               Num         8
be600       No. of voxels below -600 HU in a region   Num         8
be620       No. of voxels below -620 HU in a region   Num         8
be640       No. of voxels below -640 HU in a region   Num         8
be660       No. of voxels below -660 HU in a region   Num         8
be810       No. of voxels below -810 HU in a region   Num         8
be830       No. of voxels below -830 HU in a region   Num         8
be850       No. of voxels below -850 HU in a region   Num         8
be870       No. of voxels below -870 HU in a region   Num         8
be890       No. of voxels below -890 HU in a region   Num         8
be900       No. of voxels below -900 HU in a region   Num         8
be910       No. of voxels below -910 HU in a region   Num         8
be920       No. of voxels below -920 HU in a region   Num         8
be930       No. of voxels below -930 HU in a region   Num         8
be940       No. of voxels below -940 HU in a region   Num         8
be950       No. of voxels below -950 HU in a region   Num         8
be960       No. of voxels below -960 HU in a region   Num         8
ccutoff     See IAC Scan Analysis variables listing   Num         8
cvm         See IAC Scan Analysis variables listing   Num         8
cvsd        See IAC Scan Analysis variables listing   Num         8
cvxm        See IAC Scan Analysis variables listing   Num         8
cvxsd       See IAC Scan Analysis variables listing   Num         8
cvym        See IAC Scan Analysis variables listing   Num         8
cvysd       See IAC Scan Analysis variables listing   Num         8
cvzm        See IAC Scan Analysis variables listing   Num         8
cvzsd       See IAC Scan Analysis variables listing   Num         8
entityve    Histogram pgm version number              Char        18
fwhm        See IAC Scan Analysis variables listing   Num         8
histolef                                              Num         8
hlcreate    hlcreate cnvrtd to #days frm RZ/scr strt  Num         8
hu10        HU value below which 10% of voxels fall    Num         8
hu15        HU value below which 15% of voxels fall    Num         8
hu20        HU value below which 20% of voxels fall    Num         8
intercep    Value used to convert voxels into HU      Num         8
kint        Knee intercept                            Num         8
knee        See IAC Scan Analysis variables listing   Num         8
kslp        See IAC Scan Analysis variables listing   Num         8
kurt        Kurtosis                                  Num         8
lae50       No. of voxels above -50 HU in a region    Num         8
lae100      No. of voxels above -100 HU in a region   Num         8
lae150      No. of voxels above -150 HU in a region   Num         8
lae200      No. of voxels above -200 HU in a region   Num         8
lae250      No. of voxels above -250 HU in a region   Num         8
laint       Ankle intercept                           Num         8
lairv       Volume of region that is air (ml)         Num         8
lankl       Ankle                                     Num         8
laslp       Ankle slope                               Num         8
lbe600      No. of voxels below -600 HU in a region   Num         8
lbe620      No. of voxels below -620 HU in a region   Num         8
lbe640      No. of voxels below -640 HU in a region   Num         8
```

```
LPEEL    -    IAC left lung peel file

Date file created:  13 May 2006
Observations:              2236
Variables:                  207

Variable                                                Variable
  Name        Variable Label                  Type      Length      Format

lbe660      No. of voxels below -660 HU in a region    Num          8
lbe810      No. of voxels below -810 HU in a region    Num          8
lbe830      No. of voxels below -830 HU in a region    Num          8
lbe850      No. of voxels below -850 HU in a region    Num          8
lbe870      No. of voxels below -870 HU in a region    Num          8
lbe890      No. of voxels below -890 HU in a region    Num          8
lbe900      No. of voxels below -900 HU in a region    Num          8
lbe910      No. of voxels below -910 HU in a region    Num          8
lbe920      No. of voxels below -920 HU in a region    Num          8
lbe930      No. of voxels below -930 HU in a region    Num          8
lbe940      No. of voxels below -940 HU in a region    Num          8
lbe950      No. of voxels below -950 HU in a region    Num          8
lbe960      No. of voxels below -960 HU in a region    Num          8
lcvm        See IAC Scan Analysis variables listing    Num          8
lcvsd       See IAC Scan Analysis variables listing    Num          8
lcvxm       See IAC Scan Analysis variables listing    Num          8
lcvxsd      See IAC Scan Analysis variables listing    Num          8
lcvym       See IAC Scan Analysis variables listing    Num          8
lcvysd      See IAC Scan Analysis variables listing    Num          8
lcvzm       See IAC Scan Analysis variables listing    Num          8
lcvzsd      See IAC Scan Analysis variables listing    Num          8
lfwhm       See IAC Scan Analysis variables listing    Num          8
lhu10       HU value below which 10% of voxels fall     Num          8
lhu15       HU value below which 15% of voxels fall     Num          8
lhu20       HU value below which 20% of voxels fall     Num          8
lkint       Knee intercept                             Num          8
lknee       See IAC Scan Analysis variables listing     Num          8
lkslp       See IAC Scan Analysis variables listing     Num          8
lkurt       Kurtosis                                   Num          8
lmean       Mean                                       Num          8
lmed        Median                                     Num          8
lsd         Standard deviation                         Num          8
lskew       Skewness                                   Num          8
ltisv       Region vol that is tissue & blood(ml)      Num          8
ltotv       Total volume of region (cubic ml)          Num          8
ltotvx      Total number of voxels in a region         Num          8
lvar        Variance                                   Num          8
mae50       No. of voxels above -50 HU in a region     Num          8
mae100      No. of voxels above -100 HU in a region    Num          8
mae150      No. of voxels above -150 HU in a region    Num          8
mae200      No. of voxels above -200 HU in a region    Num          8
mae250      No. of voxels above -250 HU in a region    Num          8
maint       Ankle intercept                            Num          8
mairv       Volume of region that is air (ml)          Num          8
mankl       Ankle                                      Num          8
maslp       Ankle slope                                Num          8
mbe600      No. of voxels below -600 HU in a region    Num          8
mbe620      No. of voxels below -620 HU in a region    Num          8
mbe640      No. of voxels below -640 HU in a region    Num          8
mbe660      No. of voxels below -660 HU in a region    Num          8
mbe810      No. of voxels below -810 HU in a region    Num          8
mbe830      No. of voxels below -830 HU in a region    Num          8
mbe850      No. of voxels below -850 HU in a region    Num          8
mbe870      No. of voxels below -870 HU in a region    Num          8
mbe890      No. of voxels below -890 HU in a region    Num          8
mbe900      No. of voxels below -900 HU in a region    Num          8
mbe910      No. of voxels below -910 HU in a region    Num          8
mbe920      No. of voxels below -920 HU in a region    Num          8
```

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LPEEL    -    IAC left lung peel file

Date file created:  13 May 2006
Observations:              2236
Variables:                  207

Variable                                              Variable
  Name        Variable Label                 Type     Length     Format

mbe930      No. of voxels below -930 HU in a region   Num        8
mbe940      No. of voxels below -940 HU in a region   Num        8
mbe950      No. of voxels below -950 HU in a region   Num        8
mbe960      No. of voxels below -960 HU in a region   Num        8
mcvm        See IAC Scan Analysis variables listing   Num        8
mcvsd       See IAC Scan Analysis variables listing   Num        8
mcvxm       See IAC Scan Analysis variables listing   Num        8
mcvxsd      See IAC Scan Analysis variables listing   Num        8
mcvym       See IAC Scan Analysis variables listing   Num        8
mcvysd      See IAC Scan Analysis variables listing   Num        8
mcvzm       See IAC Scan Analysis variables listing   Num        8
mcvzsd      See IAC Scan Analysis variables listing   Num        8
mean        Mean                                      Num        8
med         Median                                    Num        8
mfwhm       See IAC Scan Analysis variables listing   Num        8
mhu10       HU value below which 10% of voxels fall    Num        8
mhu15       HU value below which 15% of voxels fall    Num        8
mhu20       HU value below which 20% of voxels fall    Num        8
mkint       Knee intercept                            Num        8
mknee       See IAC Scan Analysis variables listing   Num        8
mkslp       See IAC Scan Analysis variables listing   Num        8
mkurt       Kurtosis                                  Num        8
mmean       Mean                                      Num        8
mmed        Median                                    Num        8
msd         Standard deviation                        Num        8
mskew       Skewness                                  Num        8
mtisv       Region vol that is tissue & blood(ml)     Num        8
mtotv       Total volume of region (cubic ml)         Num        8
mtotvx      Total number of voxels in a region        Num        8
mvar        Variance                                  Num        8
newnett     New NETT patient ID no.                   Char       5
passver                                               Char       13
scandate    scandate cnvrtd to #days frm RZ/scr strt  Num        8
sd          Standard deviation                        Num        8
skew        Skewness                                  Num        8
slicethi    Slice thickness                           Char       14
tisv        Region vol that is tissue & blood(ml)     Num        8
totv        Total volume of region (cubic ml)         Num        8
totvx       Total number of voxels in a region        Num        8
uae50       No. of voxels above -50 HU in a region    Num        8
uae100      No. of voxels above -100 HU in a region   Num        8
uae150      No. of voxels above -150 HU in a region   Num        8
uae200      No. of voxels above -200 HU in a region   Num        8
uae250      No. of voxels above -250 HU in a region   Num        8
uaint       Ankle intercept                           Num        8
uairv       Volume of region that is air (ml)         Num        8
uankl       Ankle                                     Num        8
uaslp       Ankle slope                               Num        8
ube600      No. of voxels below -600 HU in a region   Num        8
ube620      No. of voxels below -620 HU in a region   Num        8
ube640      No. of voxels below -640 HU in a region   Num        8
ube660      No. of voxels below -660 HU in a region   Num        8
ube810      No. of voxels below -810 HU in a region   Num        8
ube830      No. of voxels below -830 HU in a region   Num        8
ube850      No. of voxels below -850 HU in a region   Num        8
ube870      No. of voxels below -870 HU in a region   Num        8
ube890      No. of voxels below -890 HU in a region   Num        8
ube900      No. of voxels below -900 HU in a region   Num        8
```

```
LPEEL   -   IAC left lung peel file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                          Variable
  Name      Variable Label                  Type  Length    Format

ube910     No. of voxels below -910 HU in a region   Num      8
ube920     No. of voxels below -920 HU in a region   Num      8
ube930     No. of voxels below -930 HU in a region   Num      8
ube940     No. of voxels below -940 HU in a region   Num      8
ube950     No. of voxels below -950 HU in a region   Num      8
ube960     No. of voxels below -960 HU in a region   Num      8
ucvm       See IAC Scan Analysis variables listing   Num      8
ucvsd      See IAC Scan Analysis variables listing   Num      8
ucvxm      See IAC Scan Analysis variables listing   Num      8
ucvxsd     See IAC Scan Analysis variables listing   Num      8
ucvym      See IAC Scan Analysis variables listing   Num      8
ucvysd     See IAC Scan Analysis variables listing   Num      8
ucvzm      See IAC Scan Analysis variables listing   Num      8
ucvzsd     See IAC Scan Analysis variables listing   Num      8
ufwhm      See IAC Scan Analysis variables listing   Num      8
uhu10      HU value below which 10% of voxels fall    Num      8
uhu15      HU value below which 15% of voxels fall    Num      8
uhu20      HU value below which 20% of voxels fall    Num      8
ukint      Knee intercept                            Num      8
uknee      See IAC Scan Analysis variables listing   Num      8
ukslp      See IAC Scan Analysis variables listing   Num      8
ukurt      Kurtosis                                  Num      8
umean      Mean                                      Num      8
umed       Median                                    Num      8
usd        Standard deviation                        Num      8
uskew      Skewness                                  Num      8
utisv      Region vol that is tissue & blood(ml)     Num      8
utotv      Total volume of region (cubic ml)         Num      8
utotvx     Total number of voxels in a region        Num      8
uvar       Variance                                  Num      8
var        Variance                                  Num      8
visit      Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ  Char     3
vxsize     Voxel size                                Num      8
```

```
LVER2    -    IAC left lung ver2 file

Date file created:  13 May 2006
Observations:              2236
Variables:                  207

Variable                                              Variable
  Name        Variable Label                    Type  Length    Format

ae50        No. of voxels above -50 HU in a region    Num       8
ae100       No. of voxels above -100 HU in a region   Num       8
ae150       No. of voxels above -150 HU in a region   Num       8
ae200       No. of voxels above -200 HU in a region   Num       8
ae250       No. of voxels above -250 HU in a region   Num       8
aint        Ankle intercept                           Num       8
airv        Volume of region that is air (ml)         Num       8
ankl        Ankle                                     Num       8
aslp        Ankle slope                               Num       8
be600       No. of voxels below -600 HU in a region   Num       8
be620       No. of voxels below -620 HU in a region   Num       8
be640       No. of voxels below -640 HU in a region   Num       8
be660       No. of voxels below -660 HU in a region   Num       8
be810       No. of voxels below -810 HU in a region   Num       8
be830       No. of voxels below -830 HU in a region   Num       8
be850       No. of voxels below -850 HU in a region   Num       8
be870       No. of voxels below -870 HU in a region   Num       8
be890       No. of voxels below -890 HU in a region   Num       8
be900       No. of voxels below -900 HU in a region   Num       8
be910       No. of voxels below -910 HU in a region   Num       8
be920       No. of voxels below -920 HU in a region   Num       8
be930       No. of voxels below -930 HU in a region   Num       8
be940       No. of voxels below -940 HU in a region   Num       8
be950       No. of voxels below -950 HU in a region   Num       8
be960       No. of voxels below -960 HU in a region   Num       8
ccutoff     See IAC Scan Analysis variables listing   Num       8
cvm         See IAC Scan Analysis variables listing   Num       8
cvsd        See IAC Scan Analysis variables listing   Num       8
cvxm        See IAC Scan Analysis variables listing   Num       8
cvxsd       See IAC Scan Analysis variables listing   Num       8
cvym        See IAC Scan Analysis variables listing   Num       8
cvysd       See IAC Scan Analysis variables listing   Num       8
cvzm        See IAC Scan Analysis variables listing   Num       8
cvzsd       See IAC Scan Analysis variables listing   Num       8
entityve    Histogram pgm version number              Char      18
fwhm        See IAC Scan Analysis variables listing   Num       8
histolef                                              Num       8
hlcreate    hlcreate cnvrtd to #days frm RZ/scr strt  Num       8
hu10        HU value below which 10% of voxels fall    Num       8
hu15        HU value below which 15% of voxels fall    Num       8
hu20        HU value below which 20% of voxels fall    Num       8
intercep    Value used to convert voxels into HU      Num       8
kint        Knee intercept                            Num       8
knee        See IAC Scan Analysis variables listing   Num       8
kslp        See IAC Scan Analysis variables listing   Num       8
kurt        Kurtosis                                  Num       8
lae50       No. of voxels above -50 HU in a region    Num       8
lae100      No. of voxels above -100 HU in a region   Num       8
lae150      No. of voxels above -150 HU in a region   Num       8
lae200      No. of voxels above -200 HU in a region   Num       8
lae250      No. of voxels above -250 HU in a region   Num       8
laint       Ankle intercept                           Num       8
lairv       Volume of region that is air (ml)         Num       8
lankl       Ankle                                     Num       8
laslp       Ankle slope                               Num       8
lbe600      No. of voxels below -600 HU in a region   Num       8
lbe620      No. of voxels below -620 HU in a region   Num       8
lbe640      No. of voxels below -640 HU in a region   Num       8
```

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LVER2   -   IAC left lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                   Variable
  Name        Variable Label                     Type      Length     Format

lbe660      No. of voxels below -660 HU in a region    Num        8
lbe810      No. of voxels below -810 HU in a region    Num        8
lbe830      No. of voxels below -830 HU in a region    Num        8
lbe850      No. of voxels below -850 HU in a region    Num        8
lbe870      No. of voxels below -870 HU in a region    Num        8
lbe890      No. of voxels below -890 HU in a region    Num        8
lbe900      No. of voxels below -900 HU in a region    Num        8
lbe910      No. of voxels below -910 HU in a region    Num        8
lbe920      No. of voxels below -920 HU in a region    Num        8
lbe930      No. of voxels below -930 HU in a region    Num        8
lbe940      No. of voxels below -940 HU in a region    Num        8
lbe950      No. of voxels below -950 HU in a region    Num        8
lbe960      No. of voxels below -960 HU in a region    Num        8
lcvm        See IAC Scan Analysis variables listing    Num        8
lcvsd       See IAC Scan Analysis variables listing    Num        8
lcvxm       See IAC Scan Analysis variables listing    Num        8
lcvxsd      See IAC Scan Analysis variables listing    Num        8
lcvym       See IAC Scan Analysis variables listing    Num        8
lcvysd      See IAC Scan Analysis variables listing    Num        8
lcvzm       See IAC Scan Analysis variables listing    Num        8
lcvzsd      See IAC Scan Analysis variables listing    Num        8
lfwhm       See IAC Scan Analysis variables listing    Num        8
lhu10       HU value below which 10% of voxels fall     Num        8
lhu15       HU value below which 15% of voxels fall     Num        8
lhu20       HU value below which 20% of voxels fall     Num        8
lkint       Knee intercept                             Num        8
lknee       See IAC Scan Analysis variables listing    Num        8
lkslp       See IAC Scan Analysis variables listing    Num        8
lkurt       Kurtosis                                   Num        8
lmean       Mean                                       Num        8
lmed        Median                                     Num        8
lsd         Standard deviation                         Num        8
lskew       Skewness                                   Num        8
ltisv       Region vol that is tissue & blood(ml)      Num        8
ltotv       Total volume of region (cubic ml)          Num        8
ltotvx      Total number of voxels in a region         Num        8
lvar        Variance                                   Num        8
mae50       No. of voxels above -50 HU in a region     Num        8
mae100      No. of voxels above -100 HU in a region    Num        8
mae150      No. of voxels above -150 HU in a region    Num        8
mae200      No. of voxels above -200 HU in a region    Num        8
mae250      No. of voxels above -250 HU in a region    Num        8
maint       Ankle intercept                            Num        8
mairv       Volume of region that is air (ml)          Num        8
mankl       Ankle                                      Num        8
maslp       Ankle slope                                Num        8
mbe600      No. of voxels below -600 HU in a region    Num        8
mbe620      No. of voxels below -620 HU in a region    Num        8
mbe640      No. of voxels below -640 HU in a region    Num        8
mbe660      No. of voxels below -660 HU in a region    Num        8
mbe810      No. of voxels below -810 HU in a region    Num        8
mbe830      No. of voxels below -830 HU in a region    Num        8
mbe850      No. of voxels below -850 HU in a region    Num        8
mbe870      No. of voxels below -870 HU in a region    Num        8
mbe890      No. of voxels below -890 HU in a region    Num        8
mbe900      No. of voxels below -900 HU in a region    Num        8
mbe910      No. of voxels below -910 HU in a region    Num        8
mbe920      No. of voxels below -920 HU in a region    Num        8
```

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LVER2    -    IAC left lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                              Variable
  Name       Variable Label                  Type     Length     Format

mbe930     No. of voxels below -930 HU in a region    Num        8
mbe940     No. of voxels below -940 HU in a region    Num        8
mbe950     No. of voxels below -950 HU in a region    Num        8
mbe960     No. of voxels below -960 HU in a region    Num        8
mcvm       See IAC Scan Analysis variables listing    Num        8
mcvsd      See IAC Scan Analysis variables listing    Num        8
mcvxm      See IAC Scan Analysis variables listing    Num        8
mcvxsd     See IAC Scan Analysis variables listing    Num        8
mcvym      See IAC Scan Analysis variables listing    Num        8
mcvysd     See IAC Scan Analysis variables listing    Num        8
mcvzm      See IAC Scan Analysis variables listing    Num        8
mcvzsd     See IAC Scan Analysis variables listing    Num        8
mean       Mean                                       Num        8
med        Median                                     Num        8
mfwhm      See IAC Scan Analysis variables listing    Num        8
mhu10      HU value below which 10% of voxels fall     Num        8
mhu15      HU value below which 15% of voxels fall     Num        8
mhu20      HU value below which 20% of voxels fall     Num        8
mkint      Knee intercept                             Num        8
mknee      See IAC Scan Analysis variables listing    Num        8
mkslp      See IAC Scan Analysis variables listing    Num        8
mkurt      Kurtosis                                   Num        8
mmean      Mean                                       Num        8
mmed       Median                                     Num        8
msd        Standard deviation                         Num        8
mskew      Skewness                                   Num        8
mtisv      Region vol that is tissue & blood(ml)      Num        8
mtotv      Total volume of region (cubic ml)          Num        8
mtotvx     Total number of voxels in a region         Num        8
mvar       Variance                                   Num        8
newnett    New NETT patient ID no.                    Char       5
passver                                               Char       13
scandate   scandate cnvrtd to #days frm RZ/scr strt   Num        8
sd         Standard deviation                         Num        8
skew       Skewness                                   Num        8
slicethi   Slice thickness                            Char       14
tisv       Region vol that is tissue & blood(ml)      Num        8
totv       Total volume of region (cubic ml)          Num        8
totvx      Total number of voxels in a region         Num        8
uae50      No. of voxels above -50 HU in a region     Num        8
uae100     No. of voxels above -100 HU in a region    Num        8
uae150     No. of voxels above -150 HU in a region    Num        8
uae200     No. of voxels above -200 HU in a region    Num        8
uae250     No. of voxels above -250 HU in a region    Num        8
uaint      Ankle intercept                            Num        8
uairv      Volume of region that is air (ml)          Num        8
uankl      Ankle                                      Num        8
uaslp      Ankle slope                                Num        8
ube600     No. of voxels below -600 HU in a region    Num        8
ube620     No. of voxels below -620 HU in a region    Num        8
ube640     No. of voxels below -640 HU in a region    Num        8
ube660     No. of voxels below -660 HU in a region    Num        8
ube810     No. of voxels below -810 HU in a region    Num        8
ube830     No. of voxels below -830 HU in a region    Num        8
ube850     No. of voxels below -850 HU in a region    Num        8
ube870     No. of voxels below -870 HU in a region    Num        8
ube890     No. of voxels below -890 HU in a region    Num        8
ube900     No. of voxels below -900 HU in a region    Num        8
```

```
LVER2    -    IAC left lung ver2 file

Date file created:  13 May 2006
Observations:              2236
Variables:                  207

Variable                                                Variable
  Name       Variable Label                     Type    Length    Format

ube910     No. of voxels below -910 HU in a region    Num        8
ube920     No. of voxels below -920 HU in a region    Num        8
ube930     No. of voxels below -930 HU in a region    Num        8
ube940     No. of voxels below -940 HU in a region    Num        8
ube950     No. of voxels below -950 HU in a region    Num        8
ube960     No. of voxels below -960 HU in a region    Num        8
ucvm       See IAC Scan Analysis variables listing    Num        8
ucvsd      See IAC Scan Analysis variables listing    Num        8
ucvxm      See IAC Scan Analysis variables listing    Num        8
ucvxsd     See IAC Scan Analysis variables listing    Num        8
ucvym      See IAC Scan Analysis variables listing    Num        8
ucvysd     See IAC Scan Analysis variables listing    Num        8
ucvzm      See IAC Scan Analysis variables listing    Num        8
ucvzsd     See IAC Scan Analysis variables listing    Num        8
ufwhm      See IAC Scan Analysis variables listing    Num        8
uhu10      HU value below which 10% of voxels fall     Num        8
uhu15      HU value below which 15% of voxels fall     Num        8
uhu20      HU value below which 20% of voxels fall     Num        8
ukint      Knee intercept                             Num        8
uknee      See IAC Scan Analysis variables listing    Num        8
ukslp      See IAC Scan Analysis variables listing    Num        8
ukurt      Kurtosis                                   Num        8
umean      Mean                                       Num        8
umed       Median                                     Num        8
usd        Standard deviation                         Num        8
uskew      Skewness                                   Num        8
utisv      Region vol that is tissue & blood(ml)      Num        8
utotv      Total volume of region (cubic ml)          Num        8
utotvx     Total number of voxels in a region         Num        8
uvar       Variance                                   Num        8
var        Variance                                   Num        8
visit      Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ   Char       3
vxsize     Voxel size                                 Num        8
```

```
MM    -    Form MM  6 Minute Walk Test (rev 3)

Date file created:  13 May 2006
Observations:            7031
Variables:                 27

Variable                                              Variable
  Name       Variable Label                   Type    Length    Format

dist_ft    6MW distance (feet)                Num        8
form       Form abreviation and revision number  Char   4
formdate   #4 cnvrtd to # of days frm RZ/scr strt  Num  8
mm207      Day 1 or Day 2, unused after 21May99  Char   1
mm307      7   Resting & walking O2 titration done  Char  1
mm308      8   Two hours or more since last meal  Char   1
mm309      9   Bronchodilator taken in past 4 hours  Char  1
mm310      10  Patient rested for 10 minutes   Char      1
mm311      11  O2 used during 6 minute walk test  Char   1
mm312      12  Walking oxygen requirement      Char      2
mm315      15  Total duration of test (min)    Char      2
mm316      16  Item 15 equal to 6.0            Char      1
mm317      17  Borg scale-perceived breathlessness  Char  3
mm318      18  Borg scale-perceived leg muscle fati  Char  3
mm320      20  S1, S2, S3 or RZ assessment     Char      1
mm321      21  Other reason for ineligibility?  Char     1
mm319a     19a Test lasted 6 minutes           Char      1
mm319b     19b Chest pain                      Char      1
mm319c     19c Near syncope                    Char      1
mm319d     19d Ataxic gait                     Char      1
mm319e     19e Lower extremity claudication    Char      1
mm319f     19f Mental confusion                Char      1
mm319g     19g Patient refused to continue     Char      1
mm319h     19h Staff request                   Char      1
mm319i     19i Other                           Char      1
newnett    New NETT patient ID no.             Char      5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char  3
```

Purpose: Guide tester in performing 6 minute walk testing and record data as obtained.

When: Visits s1, s2 (if the s1 6 minute walk test was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days after the s3 6 minute walk), f06, f12, and f24.

Administered by: O_2 Titration/6 Minute Walk Tester.

Instructions: You should have the patient's oxygen titration results (Form MO), a stop watch, portable oxygen delivery system (nasal cannula), meter stick or tape measure, and NETT Flash Cards #8 and 9 available. If the walk is done in a corridor, you need to assure that traffic in the corridor will not interfere with the test. Resting and walking oxygen titration assessments should have been completed prior to 6 minute walk testing. The patient should rest for 10 minutes prior to starting the 6 minute walk. During the 6 minute walk the patient will use the oxygen prescription resulting from the NETT oxygen titration assessment. The patient should have taken a short-acting bronchodilator within 4 hours of testing and at least 2 hours should have elapsed since the patient last ate a meal. The patient should wear loose fitting clothes and comfortable shoes. If the patient does not complete the walk satisfactorily, the patient may try again, but only one Form MM can be keyed for each visit.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____ _____

4. Visit date *(date of walk):*

_____ - _____ - _____
day   mon   year

5. Visit ID code: _____ _____ _____

6. Form & revision: m   m   3

B. Checks on patient condition

7. Did the resting and walking oxygen titration assessments have normal terminations:

Yes (1)   No (* 2)   STOP ←

(*These assessments must have normal terminations for patient to proceed with the 6 minute walk test.)

8. Has it been at least 2 hours since the patient ate a meal:

Yes (1)   No (* 2)   STOP ←

(*Wait until it has been at least 2 hours since the patient last ate a meal; then check Yes and proceed with testing.)

9. Has the patient taken a short-acting bronchodilator within 4 hours:

Yes (1)   No (* 2)   STOP ←

(*Administer short-acting bronchodilator; and then check Yes and proceed with testing after 15 minutes.)

10. Has the patient rested for 10 minutes:

Yes (1)   No (* 2)   STOP ←

(*After patient has rested for 10 minutes, check Yes and proceed with testing.)

C. 6 minute walk test

11. Will the patient use oxygen during the 6 minute walk test:

Yes (1)   No (2)
13. ←

12. Walking oxygen requirement *(from Form MO):*

___ ___ • ___
L/min

13. Course ID: ___ ___ ___ ___ ___ - ___
Clinic ID   Course ID

┌───┐
Do not key data recorded in this box.

Instructions: Technician will carry supplemental oxygen if used by the patient. Provide instructions to patient as shown on Flash Card #9. Start the stop watch when you say "Start". The test runs for 6 minutes regardless of the patient's rest periods. Mark completed laps below. If test lasts 6 minutes, administer Borg scale for perceived breathlessness and muscle fatigue (Flash Card #8). Remind patient that 0 means no breathlessness (no muscle fatigue) and 10 is the maximum he/she has ever felt. Measure the distance walked to the nearest meter (foot).

O = distance of 1 lap on your course

   = _____ meters or feet *(circle one)*

O O O O O   O O O O O

O O O O O   O O O O O

O O O O O   O O O O O

O O O O O   O O O O O

O O O O O   O O O O O

O O O O O   O O O O O

O O O O O   O O O O O

Distance of incomplete (final) lap:

_____ meters or feet *(circle one)*

Borg (perceived breathlessness):   _____

Borg (perceived leg muscle fatigue):_____
└───┘

14. Total distance walked

   a. Distance: ___ ___ ___ ___

   b. Units:

   Meters   ($_1$)
   Feet   ($_2$)

15. Total duration of test (ie, total time patient was on the course, including any rest periods):

___ ___ • ___
min

16. Is item 15 equal to 6.0:

Yes ($_1$)   No (*$_2$)
|19.|◄┘

*If No and this is the s1, s2, s3, or rz assessment, patient must repeat the 6 minute walk until the walk lasts 6 minutes in order to be eligible for randomization.

17. Borg scale rating for perceived breathlessness:

___ ___ • ___

18. Borg scale rating for perceived leg muscle fatigue:

___ ___ • ___

19. Reason(s) for test termination *(check "test lasted 6 minutes" if test terminated at 6 minutes; otherwise check all that apply of items 19b-19i):*

   a. Test lasted 6 minutes: ($_1$)
   |20.|◄┘

   b. Chest pain: ($_1$)

   c. Near syncope: ($_1$)

   d. Ataxic gait: ($_1$)

   e. Lower extremity claudication: ($_1$)

   f. Mental confusion: ($_1$)

   g. Patient refused to continue: ($_1$)

   h. Staff request: ($_1$)

   i. Other, specify: ($_1$)

   _____
   specify

20. Is this the s1, s2, s3, or rz assessment:

Yes ($_1$)   No ($_2$)
|22.|◄┘

21. Is there any reason to declare the patient
ineligible for NETT based on this
assessment:

Yes   No
(* 1)   (2)
STOP ←⌐   22. ←⌐

_____
specify reason for ineligibility

*(*Complete section D, Administrative
information. The patient is ineligible for NETT.)*

D. Administrative information

22. O2 Titration/6 Minute Walk Tester PIN:

__ __ __

23. O2 Titration/6 Minute Walk Tester
signature:

_____

24. Clinic Coordinator PIN: __ __ __

25. Clinic Coordinator signature:

_____

26. Date form reviewed:

__ __ - __ __ - __ __
day   mon   year

```
MO    -    Form MO  Oxygen Titration (rev 3)

Date file created:  13 May 2006
Observations:            5873
Variables:                 31

Variable                                           Variable
  Name      Variable Label                   Type   Length    Format

form        Form abreviation and revision number   Char      4
formdate    #4 cnvrtd to # of days frm RZ/scr strt Num       8
mo308       8   At least 2 hours since last meal   Char      1
mo309       9   Short-acting bronchodilator in past Char     1
mo310       10  Pulse oximeter model               Char      1
mo311       11  Pulse oximeter ECG-gated           Char      1
mo312       12  Pulse oximeter probe site          Char      1
mo313       13  SpO2 at end of resting titration (%) Char    3
mo314       14  Heart rate at end of resting titrati Char    3
mo315       15  Oxygen required at end of titration Char      1
mo316       16  Resting oxygen requirement         Char      2
mo317       17  Reason for ending resting titration Char     1
mo318       18  O2 titration being done on same day Char     1
mo319       19  Treadmill speed for Part 1         Char      1
mo320       20  Duration of Part 1 (<= 1 mph walk) Char      2
mo321       21  Lowest SpO2 in last minute         Char      3
mo322       22  Heart rate linked to SpO2          Char      3
mo323       23  O2 flow rate linked to SpO2        Char      2
mo324       24  Reason for terminating Part 1      Char      1
mo325       25  Part 1: Borg-perceived breathlessnes Char    3
mo326       26  Part 1: Borg-perceived leg muscle fa Char    3
mo327       27  Part 2 attempted                   Char      1
mo328       28  Treadmill speed for Part 2         Char      1
mo329       29  Duration of Part 2                 Char      1
mo330       30  SpO2 at end of Part 2              Char      3
mo331       31  O2 flow rate at end of Part 2      Char      2
mo332       32  Reason for terminating Part 2      Char      1
mo333       33  Patient can do 6min walk on 6L/min O Char    1
mo334       34  O2 prescription for 6 minute walk  Char      2
newnett     New NETT patient ID no.                Char      5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char      3
```

NETT

Oxygen Titration

Purpose: Guide tester in performing resting and walking oxygen titration assessments and record data as obtained.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, and f24.

Administered by: O_2 Titration/6 Minute Walk Tester.

Instructions: Resting and walking oxygen titration assessments are done prior to the six minute walk. The patient should have taken a short-acting bronchodilator within 4 hours of testing, should not have eaten a meal within 2 hours of testing, and should be wearing loose fitting clothes and comfortable shoes. Fill in your alphabetic clinic ID code in the first part of item 7. If the titration is done in your pulmonary function lab, write in the lab's ID code in the second part of item 7. If the assessment is done elsewhere, enter "n" in the second part of item 7. If your pulse oximeter prints a report, mark the report with the patient's ID number and name code and attach the report to this form. The Part 2 walking titration is optional. If the patient does not do the Part 2 walk, the patient will use the oxygen flow in use at the end of Part 1 walk for the 6 minute walk.

A. Clinic, visit, and patient identification

1. Clinic ID: ____ ____ ____ ____

2. Patient ID: ____ ____ ____ ____

3. Patient name code:

    ____ ____ ____ ____ ____

4. Visit date *(date of resting titration)*:

    ____ -____ ____ -____ ____
    day   mon   year

5. Visit code: ____ ____ ____

6. Form and revision: **m   o   3**

7. Lab ID *("n" if not applicable)*:

    ____ ____ ____ -____ ____
    Clinic ID   Lab ID

B. Checks on patient condition

8. Has it been at least 2 hours since the patient last ate a meal:

    Yes   No
    (1)   (* 2)

    *(*Wait until it has been at least 2 hours since the patient last ate a meal; then check Yes and proceed with testing.)*

C. Resting oxygen titration

9. Has the patient taken a short-acting bronchodilator within 4 hours:

    Yes   No
    (1)   (* 2)

    *(*Administer short-acting bronchodilator; and then check "Yes" and proceed with testing after 15 minutes.)*

10. Pulse oximeter manufacturer/model:

Criticare 504 USP	(1)
Nellcor N200	(2)
Ohmeda Biox 3740	(3)
Sensormedic 767501-102	(4)
Other *(specify)*:	(5)

    _____
    manufacturer/model

11. Is pulse oximeter ECG-gated:

    Yes   No
    (1)   (2)

12. Pulse oximeter probe site:

Finger	(1)
Ear	(2)
Forehead	(3)
Other *(specify)*:	(4)

    _____
    probe site

NETT

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Instructions: The patient should be seated and instructed not to talk. Oxygen should be stopped. Start oxygen (nasal cannula only) if (a) SpO_2 is 85% or less at any time or (b) $SpO_2 < 90\%$ after 5 minutes on room air. If oxygen is started, increase oxygen in 1 L/min increments until SpO_2 just exceeds 90%; terminate the resting titration once SpO_2 exceeds 90% and is stable for 1 minute. If oxygen is not started and SpO_2 is 90% or more after 5 minutes on room air, the resting titration is over. At end of titration, record SpO_2, heart rate, and oxygen requirement. Terminate the titration if oxygen flow requirement ever exceeds 6 L/min.

Resting oxygen titration data:

13. SpO_2 at end of resting titration:

____ ____ ____
%

14. Heart rate at end of resting titration:

____ ____ ____
beats/min

15. Was the patient on oxygen at the end of titration:

Yes   No
(₁)   (₂)
17. ◄

16. Resting oxygen requirement at end of resting titration:

____ • ____
L/min

17. Reasons for terminating resting titration:

Normal termination by tester   (₁)
18. ◄

Oxygen requirement > 6 L/min   (*† ₂)
35. ◄

Abnormal termination by tester   (*† ₃)
35. ◄

_____
specify

Terminated by patient   (*† ₄)
35. ◄

_____
specify reason

*(*If this assessment is for s1, s2, s3, or rz, the patient is ineligible for the NETT. Complete Section F.)*

(†If this is a followup assessment, the patient may not do the walking titration or the 6 minute walk test. Complete Section F.)

D. Walking oxygen titration

18. Is the walking oxygen titration being done on the same day as the resting oxygen titration:

Yes   No
(₁)   (* ₂)

If No, explain why not and specify date of walking oxygen titration:

_____
explain

_____
specify date

NETT

Instructions: All patients complete Part 1 of this assessment, treadmill walk at 1 mph or less. Patients who can walk at 1 mph with less than 6 L/min oxygen should attempt to do Part 2 of this assessment, treadmill walk at 2 mph or 3 mph. Part 2 is to be done immediately after Part 1 and should last no longer than 4 additional minutes. Record the lowest SpO_2 observed in each minute and the heart rate and oxygen delivery rate linked with the lowest SpO_2. Borg scores are recorded only for Part 1 and only if Part 1 terminates normally.

Part 1: *Treadmill speed, 1st NETT titration:* Begin walk on treadmill at 1 mph. Patients unable to maintain a pace of 1 mph may be titrated downward in the first minute of exertion to a tolerable pace. *Treadmill speed, all subsequent NETT titrations:* Use treadmill speed used in 1st NETT titration. If patient cannot sustain the speed used in the 1st NETT titration, a lower speed may be used. *All titrations:* Initial oxygen flow rate will be that at end of resting titration. Stand patient on the treadmill. If SpO_2 drops below 90%, titrate oxygen to a saturation between 90% and 94% and record saturation in time 0. Patient may keep his/her fingers on the rails to maintain balance but should not grip the rails. Have patient begin walking. If SpO_2 drops below 90%, increase oxygen flow by 1 L/min while patient continues walking. If SpO_2 does not increase to at least 90% within 1 minute, increase oxygen flow by an additional 1 L/min. Adjust oxygen flow by 1 L/min increments to maintain SpO_2 between 90% and 94%. If oxygen flow is incremented to keep $SpO_2 \geq 90\%$ and that increment results in $SpO_2 > 94\%$, you do not need to decrease oxygen flow. Do not adjust oxygen flow with fractional increments. Oxygen flow can be adjusted every minute, or more or less frequently at technician's discretion. Patient may rest at technician's discretion and then continue at the speed and oxygen flow in use when exercise halted. *Criteria for termination:* Maintenance of SpO_2 at least 90% and no greater than 94% for 3 minutes after last adjustment of oxygen flow (maintenance of $SpO_2 \geq 90\%$ for at least 3 minutes if oxygen is never started). If titration is terminated normally, administer Borg scale (Flash Card #8) for perceived breathlessness and leg muscle fatigue. Remind patient that 0 means no breathlessness (muscle fatigue) and 10 is the maximum he/she has ever felt. *Abnormal termination:* Terminate the titration if oxygen requirement exceeds 6 L/min.

Part 2: This part is optional. If done, do it immediately after Part 1 (ie, no interruption, patient continues to walk on treadmill). It should last no longer than 4 additional minutes. Within the first minute, increase treadmill speed to 2.0 or 3.0 mph (highest speed tolerated comfortably) while patient remains on the treadmill. If the patient is unable to walk comfortably at 2.0 mph, record the ending SpO_2 and oxygen flow rate and terminate the assessment. If the patient is able to continue with the Part 2 walk, the initial oxygen flow rate will be that at end of Part 1. If

SpO_2 drops below 90%, increase oxygen flow by 1 L/min while patient continues walking. Continue to adjust oxygen flow in 1 L/min increments as needed to keep SpO_2 at or above 90%. Assessment ends when SpO_2 has been stable at or above 90% for 3 consecutive minutes or the 4 minute maximum is reached. Record SpO_2 and oxygen flow when the titration terminates.

Part 1: Treadmill speed *(after adjustment in 1st minute if necessary)*:		
Time	Lowest SpO_2 (%) in min	Heart rate (beats/min) linked to lowest SpO_2 value	O_2 flow rate (L/min) linked to lowest SpO_2 value
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
Borg *(perceived breathlessness)*:		
Borg *(perceived leg muscle fatigue)*:		

Part 2: Treadmill speed	2 mph or 3 mph		
Time	Lowest SpO_2 (%) in min	Heart rate (beats/min) linked to SpO_2 value	O_2 flow rate (L/min) linked to SpO_2 value
1			
2			
3			
4			
SpO_2 at end (%):			
O_2 flow rate at end (L/min):			

19. Treadmill speed for Part 1 (≤ 1 mph walk):

    1.0 mph   (1)
    Other *(specify)*   (2)

    _____
              specify in mph

20. Duration of Part 1 (≤ 1 mph walk):

                             _____ _____
                              min

21. Lowest SpO_2 in last minute (last SpO_2 value recorded in table for Part 1):

                         _____ _____ _____
                             %

22. Heart rate linked to SpO_2 in item 21 (last heart rate value recorded in table for Part 1):

                      _____ _____ _____
                         beats/min

23. Oxygen flow rate linked to SpO_2 in item 21 (last oxygen flow rate value recorded in table for Part 1) *(enter 0.0 if patient was not on oxygen)*:

                    _____ _____ • _____
                          L/min

24. Reason for terminating Part 1 (≤ 1 mph walk):

    Normal termination by tester   (1)

    Oxygen requirement > 6 L/min   (* 2)
                 35. ◄

    Abnormal termination by tester   (* 3)
                 35. ◄

    _____
              specify reason

    Terminated by patient   (* 4)
                 35. ◄

    _____
              specify reason

(*If this assessment is for s1, s2, s3, or rz, the patient is ineligible for NETT; if this is a followup assessment, the patient may not do the 6 minute walk test; complete Section F.)

25. Borg scale rating for perceived breathlessness (Part 1):

                    _____ _____ • _____

26. Borg scale rating for perceived leg muscle fatigue (Part 1):

                 _____ _____ • _____

27. Was Part 2 (2.0/3.0 mph walk) attempted:

                Yes   No
                (1)   (* 2)
                        33. ◄

    (*Oxygen prescription for 6 minute walk is flow recorded in item 23.)

28. Treadmill speed for Part 2 (2.0/3.0 mph walk):

    2.0 mph   (1)
    3.0 mph   (2)

29. Duration of Part 2 (2.0/3.0 mph walk) *(enter "0" if patient walked less than 30 seconds)*:

                                _____
                                min

30. SpO_2 when Part 2 (2.0/3.0 mph walk) terminated:

                      _____ _____ _____
                            %

31. Oxygen flow rate in use when Part 2 (2.0/3.0 mph walk) terminated *(enter 0.0 if oxygen was not in use at end of Part 2)*:

                    _____ _____ • _____
                          L/min

NETT

32. Reason for terminating Part 2 (2.0/3.0 mph walk):

SpO$_2$ stable at or above 90% for 3
consecutive minutes   (* $_1$)

34. ◄

4 minutes of walking without
stabilization and oxygen requirement at
end of Part 2 ≤ 5 L/min   († $_2$)

34. ◄

4 minutes of walking without
stabilization and oxygen requirement at
end of Part 2 is 6 L/min   (‡ $_3$)

Patient could not walk at 2 mph
comfortably   (** $_4$)

Abnormal termination by tester   (†† $_5$)

35. ◄

_____
specify reason

Terminated by patient   (** $_6$)

_____
specify reason

*(*Oxygen prescription for 6 minute walk is flow in use at
end of Part 2.)*

*(†Oxygen prescription for 6 minute walk is 1 L/min more
than flow in use at end of Part 2.)*

*(‡Clinic staff should judge appropriateness of proceeding
with the 6 minute walk with patient using 6 L/min oxygen.)*

*(**Oxygen prescription for 6 minute walk is 1 L/min more
than flow in use when the Part 2 walk terminated. If this
addition of 1 L/min raises the oxygen flow to > 6 L/min,
clinic staff should judge appropriateness of proceeding with
the 6 minute walk with the patient using 6 L/min of oxygen.)*

*(††If this assessment is for s1, s2, s3, or rz, the patient is
ineligible for NETT; complete Section F. If this assessment
is a followup assessment, the patient may not do the 6
minute walk test; complete Section F.)*

E. Oxygen prescription for 6 minute walk

33. Do clinic staff judge that patient can do the 6
minute walk safely on 6 L/min oxygen or less:

Yes   No
($_1$)   ($_2$)

Stop ◄

34. Oxygen prescription for 6 minute walk *(enter 0.0 if
oxygen not required)*:

_____ • _____
L/min

F. Administrative information

35. O$_2$ Titration/6 Minute Walk Tester PIN:

_____ _____ _____

36. O$_2$ Titration/6 Minute Walk Tester signature:

_____

37. Clinic Coordinator PIN:

_____ _____ _____

38. Clinic Coordinator signature:

_____

39. Date form reviewed:

_____ _____-_____ _____-_____ _____
day   mon   year

```
MV    -    Form MV  Missed or Incomplete Visit (rev 4)

Date file created: 13 May 2006
Observations:           1331
Variables:                45

Variable                                         Variable
  Name      Variable Label                 Type   Length    Format

form        Form abreviation and revision number  Char       4
formdate    #4 cnvrtd to # of days frm RZ/scr strt Num        8
mv407       7   Was the entire visit missed?      Char       1
mv410       10  Visit partially completed         Char       1
mv408a      8a  Ill                               Char       1
mv408b      8b  Temporarily out of area           Char       1
mv408c      8c  Refused to return                 Char       1
mv408d      8d  Permanently moved from area       Char       1
mv408e      8e  Unable to contact patient         Char       1
mv408f      8f  Physical condition precludes visit Char       1
mv408g      8g  Mental condition precludes visit  Char       1
mv408h      8h  Other reason for missed visit     Char       1
mv409a      9a  Telephoned patient                Char       1
mv409b      9b  Mailed reminder card              Char       1
mv409c      9c  Other steps taken                 Char       1
mv411a      11a Blood and urine analyses (BU)     Char       1
mv411b      11b Exercise testing (EW)             Char       1
mv411c      11c Heart function (HF)               Char       1
mv411d      11d Interim history (HI)              Char       1
mv411e      11e O2 titration (MO)                 Char       1
mv411f      11f Six minute walk test (MM)         Char       1
mv411g      11g Physical exam (PE)                Char       1
mv411h      11h Pulmonary function (PF)           Char       1
mv411i      11i Pulmonary mechanics (PM)          Char       1
mv411j      11j MOS SF 36 (QF)                    Char       1
mv411k      11k St Georges respiratory quest (QG) Char       1
mv411l      11l Shortness of breath quest (QS)    Char       1
mv411m      11m Quality of well-being scale (QW)  Char       1
mv411n      11n CT scan (RC)                      Char       1
mv411o      11o Chest radiograph (RR)             Char       1
mv411p      11p Trail making test (TM)            Char       1
mv411q      11q Alternalte Trail making (TO)      Char       1
mv411r      11r Cardiovascular Substudy (VC)      Char       1
mv411s      11s ABG Exercise Substudy (ES)        Char       1
mv411t      11t Other                             Char       1
mv412a      12a Patient was ill                   Char       1
mv412b      12b Patient refused procedure         Char       1
mv412c      12c Procedure forgotten               Char       1
mv412d      12d Other reason form not done        Char       1
mv413a      13a Tried to reschedule procedure     Char       1
mv413b      13b Tried to interview by phone       Char       1
mv413c      13c Tried to gain cooperation         Char       1
mv413d      13d Other attempt made                Char       1
newnett     New NETT patient ID no.               Char       5
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char       3
```

Purpose: Record reason(s) for missed or incomplete visit.

When: Complete this form for any missed followup visit (f06, f12, f24, f36, f48, f60) or for any followup visit (f06, f12, f24, f36, f48, f60) for which some required form(s) was not completed. You may complete the form before the window for the visit has closed.

Respondent: None.

Completed by: Clinic Coordinator.

Instructions: Complete this form when a patient fails to complete a followup visit or specific followup visit proce- dures (resulting in missing forms) within the time window for the visit. Complete only one MV form per missed or incomplete visit. In item 4, fill in the current date (if the window is still open) or the date the time window closed (if the window is closed). Fill in item 5, Visit ID code, with the code for the missed or incomplete visit. Do not use this form to document missed scheduled telephone contacts (use Form AT instead).

A. Clinic, patient, and visit identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date:

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: f ___ ___

6. Form & revision: m v 4

B. Reason for completion of this form

7. Was the entire visit missed?

Yes (₁)   No (₂)

$\boxed{10.}$ ◄┘

C. Missed visit information

8. Reason for missed visit *(check all that apply)*

a. Patient was ill: (₁)

b. Patient was temporarily away from area: (₁)

c. Patient refused to return: (₁)

d. Patient has permanently moved from the area: (₁)

e. Unable to contact patient: (₁)

f. Patient's physical condition precludes attending visit: (₁)

g. Patient's mental condition precludes attending visit: (₁)

h. Other *(specify):* (₁)

_____
specify

9. Steps taken to avoid missing the visit *(check all that apply)*

a. Telephoned patient: (₁)

b. Mailed reminder card: (₁)

c. Other *(specify):* (₁)

_____
specify $\boxed{14.}$ ◄┘

D. Incomplete visit information

10. Was part of the visit completed:

Yes (₁)   No (₂)

$\boxed{14.}$ ◄┘

11. Check form(s) not completed *(check all that apply)*

    a. Blood and urine analyses (Form BU):   (₁)

    b. Exercise testing (Form EW):   (₁)

    c. Heart function (Form HF):   (₁)

    d. Interim history (Form HI):   (₁)

    e. O_2 titration (Form MO):   (₁)

    f. Six minute walk test (Form MM):   (₁)

    g. Physical examination (Form PE):   (₁)

    h. Pulmonary function (Form PF):   (₁)

    i. Pulmonary mechanics (Form PM):   (*₁)

    j. MOS SF 36 (Form QF):   (₁)

    k. St. George's respiratory questionnaire (Form QG):   (₁)

    l. UCSD shortness of breath questionnaire (Form QS):   (₁)

    m. Quality of well-being scale (Form QW):   (₁)

    n. CT scan (Form RC):   (₁)

    o. Chest radiograph (Form RR):   (₁)

    p. Trail Making Test (Form TM; f24, f48):   (₁)

    q. Alternate Trail Making Test (Form TO; f12, f36, f60):   (₁)

    r. Cardiovascular Substudy (Form VC):   (*₁)

    s. ABG Exercise Substudy (Form ES):   (*₁)

    t. Other *(specify):*   (₁)

    _____
                  specify

*Check only if patient is enrolled in the substudy <u>and</u> missed the procedure.

12. Reason form(s) not completed *(check all that apply)*

    a. Patient was ill: (₁)

    b. Patient refused procedure: (₁)

    c. Procedure forgotten: (₁)

    d. Other *(specify):*   (₁)

    _____
                  specify

13. Attempts made to complete form(s) *(check all that apply)*

    a. Attempted to reschedule procedure: (₁)

    b. Attempted to collect interview data by phone from patient: (₁)

    c. Attempted to gain patient cooperation: (₁)

    d. Other *(specify):*   (₁)

    _____
                  specify

E. Administrative information

  14. Date form reviewed:

    ____ - ____ - ____
    day   mon   year

  15. Clinic Coordinator PIN: __ __ __

  16. Clinic Coordinator signature:

    _____

```
PE    -    Form PE  Physical Examination (rev 2)

Date file created:  13 May 2006
Observations:              6627
Variables:                   39

Variable                                             Variable
  Name       Variable Label                   Type   Length    Format

form       Form abreviation and revision number   Char      4
formdate   #4 cnvrtd to #days frm RZ/scr strt     Num       8
newnett    New NETT patient ID no.                Char      5
pe207      7   S1 assessment?                     Char      1
pe212      12  BMI (kg/m**2)                      Char      3
pe215      15  Resting radial pulse (beats/min)   Char      3
pe216      16  Respiratory rate (breaths/min)     Char      2
pe217      17  Skin                               Char      1
pe218      18  Head, eyes, ENT                    Char      1
pe219      19  Neck                               Char      1
pe220      20  Lymphatic                          Char      1
pe221      21  Chest and lungs                    Char      1
pe223      23  Heart                              Char      1
pe225      25  Abdomen                            Char      1
pe226      26  Extremities                        Char      1
pe228      28  Nervous system                     Char      1
pe229      29  Influenza vaccine up-to-date       Char      1
pe230      30  Pneumonia vaccine up-to-date       Char      1
pe213a     13a Temperature (degrees)              Char      4
pe213b     13b Fahrenheit/Centigrade              Char      1
pe214a     14a Systolic blood pressure (mm/Hg)    Char      3
pe214b     14b Diastolic blood pressure (mm/Hg)   Char      3
pe222a     22a Dullness to percussion             Char      1
pe222b     22b Rales or crackles                  Char      1
pe222c     22c Ronchi                             Char      1
pe222d     22d Wheezes                            Char      1
pe222e     22e Hyperresonance                     Char      1
pe222f     22f Hyperinflation                     Char      1
pe222g     22g Acute respiratory distress         Char      1
pe222h     22h Other chest/lung abnormality       Char      1
pe224a     24a Neck vein distension               Char      1
pe224b     24b S3 gallop                          Char      1
pe224c     24c premature beats                    Char      1
pe224d     24d Other heart abnormality            Char      1
pe227a     27a Edema                              Char      1
pe227b     27b Cyanosis                           Char      1
pe227c     27c Clubbing                           Char      1
pe227d     27d Other extremity abnormality        Char      1
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ Char      3
```

Purpose: Record physical exam findings.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if the s1 assessment was done more than 21 days after the s3 physical), f06, f12, f18, f24, f36, f48, f60.

Administered by: Study Physician (pulmonary physician or thoracic surgeon) and Clinic Coordinator.

Respondent: Patient.

Instructions: Influenza vaccine should be given yearly. Pneumonia vaccination should be done every 5 years. Use a calculator for all calculations.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____

3. Patient name code: _____ _____ _____ _____

4. Visit date:

_____ - _____ - _____
day   mon   year

5. Visit ID code: _____ _____ _____

6. Form & revision: p e 2

B. Measurements

7. Is this the s1 assessment:

Yes (1)   No (2)

| **13.** ◄┘

8. Units of height measurement performed:

Inches (1)
Centimeters (2)

| **9b.** ◄┘

9. Height

a. Height in inches: _____ _____ • _____
in

b. Height in centimeters *(measured directly or item 9a x 2.54):*

_____ _____ _____ • _____
cm

10. Units of weight measurment performed:

Pounds (1)
Kilograms (2)

| **11b.** ◄┘

11. Weight

a. Weight in pounds:

_____ _____ _____ • _____
lb

b. Weight in kilograms *(measured directly or item 11a/2.2046):*

_____ _____ _____ • _____
kg

12. Body mass index, BMI
(kg/m^2; weight/[(ht/100)^2]; use a calculator):

_____ _____ • _____
kg/m^2

(Note: If this is a pre-randomization exam and BMI > 31.1 (males) or > 32.3 (females) at time of randomization, patient is ineligible for NETT. Clinic staff will need to judge whether patient should continue with screening or stop.)

13. Oral temperature

a. Degrees: _____ _____ _____ • _____

b. Scale:

Fahrenheit: (1)

Centigrade: (2)

14. Blood pressure

a. Systolic: _____ _____ _____
mmHg

b. Diastolic: _____ _____ _____
mmHg

15. Resting radial pulse: ___ ___ ___
beats/minute

16. Respiratory rate: ___ ___ ___
breaths/min.

C. Examination findings

17. Skin:

Normal (₁)

18. ◄┘

Abnormal (₂)

_____
specify abnormality

18. Head, eyes, ears, nose, throat:

Normal (₁)

19. ◄┘

Abnormal (₂)

_____
specify abnormality

19. Neck:

Normal (₁)

20. ◄┘

Abnormal (₂)

_____
specify abnormality

20. Lymphatic:

Normal (₁)

21. ◄┘

Abnormal (₂)

_____
specify abnormality

21. Chest and lungs:

Normal (₁)

23. ◄┘

Abnormal (₂)

22. Abnormality *(check all that apply)*

a. Dullness to percussion: (₁)

b. Rales or crackles: (₁)

c. Ronchi: (₁)

d. Wheezes: (₁)

e. Hyperresonance: (₁)

f. Hyperinflation: (₁)

g. Acute respiratory distress: (₁)

h. Other *(specify):* (₁)

_____
specify abnormality

23. Heart:

Normal (₁)

25. ◄┘

Abnormal (₂)

24. Abnormality *(check all that apply)*

a. Neck vein distension: (₁)

b. S$_3$ gallop: (*₁)

c. Premature beats: (₁)

d. Other *(specify):* (₁)

_____
specify abnormality

(*If this is a pre-randomization examination, evaluation by a cardiologist is required prior to randomization.)

25. Abdomen:

Normal (₁)

26. ◄┘

Abnormal (₂)

_____
specify abnormality

26. Extremities:

Normal (₁)

28. ◄┘

Abnormal (₂)

27. Abnormality *(check all that apply)*

    a. Edema: ($_1$)

    b. Cyanosis: ($_1$)

    c. Clubbing: ($_1$)

    d. Other *(specify):*   ($_1$)

_____
specify abnormality

28. Nervous system:

    Normal   ($_1$)

                               | 29. |↵

    Abnormal   ($_2$)

_____
specify abnormality

D. Vaccinations

29. Is the patient up-to-date with respect to influenza vaccination:

    Yes   ($_1$)

    No, but not appropriate to vaccinate the patient at this time *(tell patient when he/she should be vaccinated or revaccinated)*   ($_2$)

    No, patient will be vaccinated at this visit   ($_3$)

    Other *(specify)*   ($_4$)

_____
specify

30. Is the patient up-to-date with respect to pneumonia vaccination (eg, pneumovax):

    Yes   ($_1$)

    No, but not appropriate to vaccinate the patient at this time *(tell patient when he/she should be vaccinated or revaccinated)*   ($_2$)

    No, patient will be vaccinated at this visit   ($_3$)

    Other *(specify)*   ($_4$)

_____
specify

E. Administrative information

31. Study Physician PIN: __ __ __

32. Study Physician signature:

_____

33. Clinic Coordinator PIN: __ __ __

34. Clinic Coordinator signature:

_____

35. Date form reviewed:

    __ __ - __ __ - __ __
    day   mon   year

```
PM    -    Form PM  Lung Mechanics (rev 3)

Date file created:  13 May 2006
Observations:                404
Variables:                   104

Variable                                          Variable
  Name       Variable Label                  Type   Length      Format

form       Form abreviation and revision number    Char        4
formdate   #4 cnvrtd to # of days frm RZ/scr       Num         8
newnett    New NETT patient ID no.                 Char        5
pm307      7   1st: Effort recorded                Char        1
pm308      8   1st: Maximum volume (liters)        Char        4
pm309      9   1st: Static recoil pressure (cmH2O) Char        3
pm310      10  1st: Pair of data points            Char        2
pm312      12  2nd: Effort recorded                Char        1
pm313      13  2nd: Maximum volume (liters)        Char        4
pm314      14  2nd: Static recoil pressure (cmH2O) Char        3
pm315      15  2nd: Pair of data points            Char        2
pm317      17  3rd: Effort recorded                Char        1
pm318      18  3rd: Maximum volume (liters)        Char        4
pm319      19  3rd: Static recoil pressure (cmH2O) Char        3
pm320      20  3rd: Pair of data points            Char        2
pm322      22  Resistance measurements recorded    Char        1
pm323      23  Inspiratory resistance (cm/L/sec)   Char        3
pm324      24  Expiratory resistance (cm/L/sec)    Char        3
pm325      25  Flow-volume curve recorded          Char        1
pm326      26  FEV1 (liters)                       Char        3
pm327      27  FVC  (liters)                       Char        3
pm328      28  Max peak flow rate (l/sec)          Char        4
pm311a1    11a Pressure (cmH2O)                    Char        3
pm311a2    11a Absolute volume (liters)            Char        4
pm311b1    11b Pressure (cmH2O)                    Char        3
pm311b2    11b Absolute volume (liters)            Char        4
pm311c1    11c Pressure (cmH2O)                    Char        3
pm311c2    11c Absolute volume (liters)            Char        4
pm311d1    11d Pressure (cmH2O)                    Char        3
pm311d2    11d Absolute volume (liters)            Char        4
pm311e1    11e Pressure (cmH2O)                    Char        3
pm311e2    11e Absolute volume (liters)            Char        4
pm311f1    11f Pressure (cmH2O)                    Char        3
pm311f2    11f Absolute volume (liters)            Char        4
pm311g1    11g Pressure (cmH2O)                    Char        3
pm311g2    11g Absolute volume (liters)            Char        4
pm311h1    11h Pressure (cmH2O)                    Char        3
pm311h2    11h Absolute volume (liters)            Char        4
pm311i1    11i Pressure (cmH2O)                    Char        3
pm311i2    11i Absolute volume (liters)            Char        4
pm311j1    11j Pressure (cmH2O)                    Char        3
pm311j2    11j Absolute volume (liters)            Char        4
pm311k1    11k Pressure (cmH2O)                    Char        3
pm311k2    11k Absolute volume (liters)            Char        4
pm311l1    11l Pressure (cmH2O)                    Char        3
pm311l2    11l Absolute volume (liters)            Char        4
pm316a1    16a Pressure (cmH2O)                    Char        3
pm316a2    16a Absolute volume (liters)            Char        4
pm316b1    16b Pressure (cmH2O)                    Char        3
pm316b2    16b Absolute volume (liters)            Char        4
pm316c1    16c Pressure (cmH2O)                    Char        3
pm316c2    16c Absolute volume (liters)            Char        4
pm316d1    16d Pressure (cmH2O)                    Char        3
pm316d2    16d Absolute volume (liters)            Char        4
pm316e1    16e Pressure (cmH2O)                    Char        3
pm316e2    16e Absolute volume (liters)            Char        4
pm316f1    16f Pressure (cmH2O)                    Char        3
pm316f2    16f Absolute volume (liters)            Char        4
```

```
PM    -    Form PM  Lung Mechanics (rev 3)

Date file created:  13 May 2006
Observations:            404
Variables:               104

Variable                                                Variable
 Name        Variable Label                      Type    Length    Format

pm316g1     16g Pressure (cmH2O)                 Char      3
pm316g2     16g Absolute volume (liters)         Char      4
pm316h1     16h Pressure (cmH2O)                 Char      3
pm316h2     16h Absolute volume (liters)         Char      4
pm316i1     16i Pressure (cmH2O)                 Char      3
pm316i2     16i Absolute volume (liters)         Char      4
pm316j1     16j Pressure (cmH2O)                 Char      3
pm316j2     16j Absolute volume (liters)         Char      4
pm316k1     16k Pressure (cmH2O)                 Char      3
pm316k2     16k Absolute volume (liters)         Char      4
pm316l1     16l Pressure (cmH2O)                 Char      3
pm316l2     16l Absolute volume (liters)         Char      4
pm321a1     21a Pressure (cmH2O)                 Char      3
pm321a2     21a Absolute volume (liters)         Char      4
pm321b1     21b Pressure (cmH2O)                 Char      3
pm321b2     21b Absolute volume (liters)         Char      4
pm321c1     21c Pressure (cmH2O)                 Char      3
pm321c2     21c Absolute volume (liters)         Char      4
pm321d1     21d Pressure (cmH2O)                 Char      3
pm321d2     21d Absolute volume (liters)         Char      4
pm321e1     21e Pressure (cmH2O)                 Char      3
pm321e2     21e Absolute volume (liters)         Char      4
pm321f1     21f Pressure (cmH2O)                 Char      3
pm321f2     21f Absolute volume (liters)         Char      4
pm321g1     21g Pressure (cmH2O)                 Char      3
pm321g2     21g Absolute volume (liters)         Char      4
pm321h1     21h Pressure (cmH2O)                 Char      3
pm321h2     21h Absolute volume (liters)         Char      4
pm321i1     21i Pressure (cmH2O)                 Char      3
pm321i2     21i Absolute volume (liters)         Char      4
pm321j1     21j Pressure (cmH2O)                 Char      3
pm321j2     21j Absolute volume (liters)         Char      4
pm321k1     21k Pressure (cmH2O)                 Char      3
pm321k2     21k Absolute volume (liters)         Char      4
pm321l1     21l Pressure (cmH2O)                 Char      3
pm321l2     21l Absolute volume (liters)         Char      4
pm329a      29a Flow at 90% FVC                  Char      4
pm329b      29b Flow at 80% FVC                  Char      4
pm329c      29c Flow at 70% FVC                  Char      4
pm329d      29d Flow at 60% FVC                  Char      4
pm329e      29e Flow at 50% FVC                  Char      4
pm329f      29f Flow at 40% FVC                  Char      4
pm329g      29g Flow at 30% FVC                  Char      4
pm329h      29h Flow at 20% FVC                  Char      4
pm329i      29i Flow at 10% FVC                  Char      4
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char    3
```

NETT

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Lung Mechanics

> **Purpose:** Record lung mechanics data
> **When:** Visits rz, f06, f48.
> **Administered by:** Pulmonary Function Coordinator and Clinic Coordinator.
> **Respondent:** None.
> **Instructions:** Record as much information as is available. Code missing items as "m."

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code:

   _____ _____ _____ _____ _____

4. Visit date:

   _____ - _____ - _____
   day   mon   year

5. Visit ID code: _____ _____ _____

6. Form & revision: **p** **m** **3**

B. Pressure-volume curve *(record up to 3 efforts)*

7. Is there a first effort to record:

   Yes   No
   (₁)   (₂)
              22. ◄┘

8. Maximum volume for 1st effort:

   _____ _____ • _____ _____ _____
   liters-BTPS

9. Static recoil pressure at maximum volume for 1st effort:

   _____ _____ • _____
   cmH₂O

10. How many pairs of data points will you record for the 1st effort *(up to 12 pairs of data points may be recorded)*:

    _____ _____

11. Data points for 1st effort *(record pressure and absolute volume values in the specified formats)*

	Pressure (cmH$_2$O) (xx.x)	Absolute volume (L) (xx.xx)
a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		
k.		
l.		

12. Is there a second effort to record:

    Yes   No
    (₁)   (₂)
               22. ◄┘

13. Maximum volume for 2nd effort:

    _____ _____ • _____ _____ _____
    liters-BTPS

14. Static recoil pressure at maximum volume for 2nd effort:

    _____ _____ • _____
    cmH₂O

15. How many pairs of data points will you record for the 2nd effort *(up to 12 pairs of data points may be recorded)*:

    _____ _____

16. Data points for 2nd effort *(record pressure and absolute volume values in the specified formats)*:

	Pressure (cmH$_2$O) (xx.x)	Absolute volume (L) (xx.xx)
a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		
k.		
l.		

17. Is there a third effort to record:

Yes   No
(1)   (2)

22. ◄

18. Maximum volume for 3rd effort:

_____ _____ • _____ _____
liters-BTPS

19. Static recoil pressure at maximum volume for 3rd effort:

_____ _____ • _____
cmH$_2$O

20. How many pairs of data points will you record for the 3rd effort *(up to 12 pairs of data points may be recorded)*:

_____ _____

21. Data points for 3rd effort *(record pressure and absolute volume values in the specified formats)*:

	Pressure (cmH$_2$O) (xx.x)	Absolute volume (L) (xx.xx)
a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		
k.		
l.		

C. **Resistance during tidal breathing (esophageal balloon method, post bronchodilator; NOT from plethysmographic panting method)**

22. Will resistance measurements measured with esophageal balloon technique be recorded:

Yes   No
(1)   (2)

25. ◄

23. Inspiratory resistance:

_____ _____ • _____
cmH$_2$O/L/sec

24. Expiratory resistance:

_____ _____ • _____
cmH$_2$O/L/sec

D. Maximal flow-volume curve *(record the curve with the greatest sum of FEV₁ plus FVC, post bronchodilator; record flow at deciles of FVC)*

25. Will the maximal flow-volume curve be recorded:

	Yes	No
	(₁)	(₂)

30. ◄┘

26. FEV_1: ____ ____ • ____ ____

    liters-BTPS

27. FVC: ____ ____ • ____ ____

    liters-BTPS

28. Maximum peak expiratory flow rate:

    ____ ____ • ____ ____

    liters/sec

29. Flow at deciles of FVC:

	Decile of FVC	Flow (liters/sec) (xx.xx)
a.	90% FVC	
b.	80% FVC	
c.	70% FVC	
d.	60% FVC	
e.	50% FVC	
f.	40% FVC	
g.	30% FVC	
h.	20% FVC	
i.	10% FVC	

E. Administrative information

30. Pulmonary Function Coordinator PIN:

    ____ ____ ____

31. Pulmonary Function Coordinator signature:

    _____

32. Clinic Coordinator PIN: ____ ____ ____

33. Clinic Coordinator signature:

    _____

34. Date form reviewed:

    ____ ____-____ ____-____

    day   mon   year

```
PULMFUNC    -    Lung function values based on PF form (rev 4)

Date file created:  13 May 2006
Observations:             6727
Variables:                  40

Variable                                                  Variable
  Name        Variable Label                       Type    Length    Format

abgdate     abg date cnvrtd to #days frm RZ/scr strt   Num        8
artcohb     Room air resting arterial CoHb (%)         Num        8
artph       Room air resting arterial pH               Num        8
dlco        DLCO, ml,min, mmHg STPD                     Num        8
dlcodate    DLCOdate cnvrtd to #days frm RZ/scr strt    Num        8
dlcopp      DLCO % predicted                           Num        8
form        Form abreviation and revision number       Char       4
formdate    #4 cnvrtd to #days frm RZ/scr strt          Num        8
frc         Post BD mean FRC (plethys, liters-BTPS)     Num        8
lvdate      LungVolDt cnvrtd to #days frmRZ/scr strt    Num        8
mep         PEmax (MEP, cmH2O)                          Num        8
mip         PImax (MIP, cmH2O)                          Num        8
mipmepdt    MIPMEPDt cnvrtdto #days frm RZ/scr strt     Num        8
mvv         Post BD MVV (L/min BTPS)                    Num        8
mvvdate     MVV date cnvrtd to #days frm RZ/scr strt    Num        8
newnett     New NETT patient ID no.                     Char       5
paco2       Room air resting PaCO2 (mmHg)               Num        8
pao2        Room air resting PaO2 (mmHg)                Num        8
postfev1    Post BD FEV1 (liters-BTPS)                  Num        8
postfvc     Post BD FVC (liters-BTPS)                   Num        8
preddlco    Predicted DLCO (ml/min/mmHg STPD)           Num        8
predfev1    Predicted FEV1 (liters-BTPS)                Num        8
predfvc     Predicted FVC (liters-BTPS)                 Num        8
predrv      Predicted RV (liters-BTPS)                  Num        8
predtlc     Predicted TLC (liters-BTPS)                 Num        8
prefev1     Pre BD FEV1 (liters-BTPS)                   Num        8
prefevpp    Pre BD FEV1 % predicted                     Num        8
prefvc      Pre BD FVC (liters-BTPS)                     Num        8
prefvcpp    Pre BD FVC % predicted                       Num        8
pstfevpp    Post BD FEV1 % predicted                     Num        8
pstfvcpp    Post BD FVC % predicted                       Num        8
rv          Post BD RV (TLC-SVC, liters-BTPS)           Num        8
rvpp        Post BD RV % predicted                       Num        8
spirodt     Spirodatecnvrtd to #days frmRZ/scr strt      Num        8
svc         Post BD maximum SVC (liters-BTPS)           Num        8
tlc         Post BD mean TLC (liters-BTPS)              Num        8
tlcpp       Post BD mean TLC % predicted                Num        8
valv        VALV (liters-BTPS)                          Num        8
vi          VI (liters-BTPS)                            Num        8
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ      Char       3
```

> **Purpose**: To summarize the pulmonary function results.
>
> **When**: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, f24, f36, f48, f60 (at all visits)
>
> **Administered by**: Pulmonary Function Coordinator and Clinic Coordinator.
>
> **Respondent**: None.
>
> **Instructions**: Spirometry should be performed with the patient in a sitting position. Transcribe the measured values from the pulmonary function laboratory and ABG reports and/or Pulmonary Function Worksheet (Form PW) to this form; reports should be marked with the patient's ID number and name code and stapled to this form. Use NETT predicted values where predicted values are requested; obtain the appropriate value from the patient's chart of predicted values. Spirometry should be done pre and post bronchodilator (BD); MVV, body plethysmography, D_LCO, and respiratory pressures should be performed post BD. Use a calculator for all calculations.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date pulmonary function testing initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: p f 4

7. Lab ID: ___ ___ ___ - ___ ___ ___
Clinic ID   Lab ID

B. Spirometry

8. Was spirometry performed:

(Yes 1)   (No 2)
12. ↵

9. Pre BD values

  a. FVC: ___ ___ • ___ ___
liters-BTPS

  b. FEV_1: ___ ___ • ___ ___
liters-BTPS

10. Post BD values

  a. FVC: ___ ___ • ___ ___
liters-BTPS

  b. FEV_1: ___ ___ • ___ ___
liters-BTPS

  c. Is this an s1, s2, s3, or rz assessment:

(Yes 1)   (No 2)
11. ↵

  d. Predicted FEV_1 *(obtain from NETT chart for patient):*

___ ___ • ___ ___
liters-BTPS

  e. Maximum of pre and post BD FEV_1 *(maximum of items 9b and 10b):*

___ ___ • ___ ___
liters-BTPS

  f. FEV_1 % predicted *[(item 10e/item 10d) * 100]:*

___ ___ ___ ___
%.

11. Date spirometry performed:

___ ___ - ___ ___ - ___ ___
day   mon   year

C. Post BD MVV

12. Was post BD MVV performed:

Yes (__ $_1$)   No (__ $_2$)

15. ↵

13. MVV: __ __ • __ __

L/min BTPS

14. Date MVV performed:

__ __ - __ __ - __ __

day   mon   year

D. Lung volumes (body plethysmography)

15. Were post BD lung volumes performed:

Yes (__ $_1$)   No (__ $_2$)

18. ↵

16. Post BD values

a. Mean TLC: __ __ • __ __

liters-BTPS

b. Maximum SVC: __ • __ __

liters-BTPS

c. RV *(item 16a - item 16b):*

__ __ • __ __

liters-BTPS

d. Mean FRC (plethys): __ __ • __ __

liters-BTPS

e. Is this an s1, s2, s3, or rz assessment:

Yes (__ $_1$)   No (__ $_2$)

17. ↵

f. Predicted TLC *(obtain from NETT chart for patient):*

__ __ • __ __

liters-BTPS

g. Post BD TLC % predicted *[(item 16a/item 16f) * 100]:*

__ __ __ %.

h. Predicted RV *(obtain from NETT chart for patient):*

__ __ • __ __

liters-BTPS

i. Post BD RV % predicted *[(item 16c/item 16h) * 100]:*

__ __ __ %.

17. Date lung volumes performed:

__ __ - __ __ - __ __

day   mon   year

E. Resting room air arterial blood gas analysis

18. Was arterial blood drawn:

Yes (__ $_1$)   No (__ $_2$)

22. ↵

19. Room air resting ABG values

a. PaO_2: __ __ __

mmHg

b. $PaCO_2$: __ __ __

mmHg.

c. pH: __ __ • __ __

20. Arterial CoHb: __ __ • __ __

%

21. Date of arterial blood draw:

__ __ - __ __ - __ __

day   mon   year

F. Diffusing capacity (D_LCO)

22. Was D_LCO performed *(s1/s2 and f12):*

Yes   No
(1)   (2)
25. ←

23. D_LCO values

   a. D_LCO *(uncorrected for hemoglobin, uncorrected for altitude):*

   ___ ___ • ___ ___
   ml/min/mmHg STPD

   b. V_I:

   ___ ___ • ___ ___
   liters-BTPS

   c. V_{ALV}:

   ___ ___ • ___ ___
   liters-BTPS

   d. Is this an s1, s2, s3, or rz assessment:

   Yes   No
   (1)   (2)
   24. ←

   e. Was the test performed in Denver:

   Yes   No
   (1)   (2)
   23h. ←

   f. Alveolar PO₂ *(calculate as [(619 - 47) * 0.21 - (item 19b/0.8)]):*

   ___ ___ ___
   mmHg.

   g. Altitude corrected D_LCO *(calculate as item 23a * [1.0 + 0.0035 (item 23f - 120)]):*

   ___ ___ • ___ ___
   ml/min/mmHg STPD

   h. Predicted D_LCO *(obtain from NETT chart for patient):*

   ___ ___ • ___ ___
   ml/min/mmHg STPD

   i. D_LCO % predicted *[(item 23a or item 23g/item 23h) * 100]:*

   ___ ___ ___
   %.

24. Date D_LCO performed:

   ___ ___ - ___ ___ - ___ ___
   day   mon   year

G. Respiratory mouth pressures

25. Were respiratory mouth pressures measured:

Yes   No
(1)   (2)
30. ←

26. What units are the pressures measured in:

   cm H₂O   (1)
   mm Hg   (2)

27. PI_{max} (MIP):   ___ ___ ___ ___

28. PE_{max} (MEP):   ___ ___ ___ ___

29. Date respiratory mouth pressures measured:

   ___ ___ - ___ ___ - ___ ___
   day   mon   year

H. Administrative information

30. Pulmonary Function Coordinator PIN:

   ___ ___ ___

31. Pulmonary Function Coordinator signature:

   _____

32. Clinic Coordinator PIN: ___ ___ ___

33. Clinic Coordinator signature:

   _____

34. Date form reviewed:

   ___ ___ - ___ ___ - ___ ___
   day   mon   year

```
QB    -     Form QB  Beck Depression Inventory (rev 2)

Date file created:  13 May 2006
Observations:             2000
Variables:                   6

Variable                                        Variable
  Name      Variable Label                Type   Length    Format

form       Form abreviation and revision number   Char     4
formdate   #4 cnvrtd to #days frm RZ/scr strt     Num      8
newnett    New NETT patient ID no.                Char     5
qb207      7 Beck inventory: score of 1st 13 items Char    2
qb208      8  Beck Inventory: score of last 8 items Char   2
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char     3
```

```
QE    -    Form QE  Self-Evaluation Questionnaire (rev 2)

Date file created:  13 May 2006
Observations:              1993
Variables:                    6

Variable                                            Variable
  Name        Variable Label                 Type   Length    Format

form        Form abreviation and revision number   Char       4
formdate    #4 cnvrtd to # of days frm RZ/scr      Num        8
newnett     New NETT patient ID no.                Char       5
qe207a      7a Scoring: form Y-1                   Char       2
qe207b      7b Scoring: form Y-2                   Char       2
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char       3
```

Self-Evaluation Questionnaire

> **Purpose**: To help staff determine initial pulmonary rehabilitation prescription with respect to psychosocial counseling.
>
> **When**: At visit s1 as part of the Rehabilitation Evaluation (assessment must be completed before Core Rehabilitation begins).
>
> **Administered by**: Rehabilitation staff and Clinic Coordinator.
>
> **Respondent**: Patient.
>
> **Instructions**: A label with the patient's ID, name code, and appropriate visit code (s1) should be affixed on pages 2-4. The patient should complete pages 2-3 (items 1-40). The Y-1 and Y-2 scores should be calculated using the scoring key on page 4. Only items on page 1 are keyed to the NETT database. Staple pages 1-4 together at the close of the assessment.

A. Clinic, visit, and patient identification

1. Clinic ID: ____ ____ ____ ____

2. Patient ID: ____ ____ ____ ____ ____

3. Patient name code:

   ____ ____ ____ ____

4. Visit date:

   ____ ____ - ____ ____ - ____
   day   mon   year

5. Visit code: **s**   **1**   ____

6. Form & revision: **q**   **e**   **2**

B. Administrative information
   (To be completed by clinic staff)

7. Scoring
   a. Form Y-1 *(sum of weights for items 1-20)*

   ____ ____
   (20-80)

   b. Form Y-2 *(sum of weights for items 21-40)*

   ____ ____
   (20-80)

8. Examiner
   a. Name *(please print)*:

   _____

   b. Signature:

   _____

9. Clinic Coordinator
   a. PIN: ____ ____ ____
   b. Signature:

   _____

10. Date form reviewed:

   ____ ____ - ____ ____ - ____
   day   mon   year

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SELF-EVALUATION QUESTIONNAIRE - Form Y-1

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feeling best.

NOT AT ALL   *SOMEWHAT*   *MODERATELY SO*   *VERY MUCH SO*

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I am strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

SELF-EVALUATION QUESTIONNAIRE - Form Y-2

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel.

		ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21.	I feel pleasant	1	2	3	4
22.	I feel nervous and restless	1	2	3	4
23.	I feel satisfied with myself	1	2	3	4
24.	I wish I could be as happy as others seem to be	1	2	3	4
25.	I feel like a failure	1	2	3	4
26.	I feel rested	1	2	3	4
27.	I am "calm, cool, and collected"	1	2	3	4
28.	I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29.	I worry too much over something that really doesn't matter	1	2	3	4
30.	I am happy	1	2	3	4
31.	I have disturbing thoughts	1	2	3	4
32.	I lack self-confidence	1	2	3	4
33.	I feel secure	1	2	3	4
34.	I make decisions easily	1	2	3	4
35.	I feel inadequate	1	2	3	4
36.	I am content	1	2	3	4
37.	Some unimportant thought runs through my mind and bothers me	1	2	3	4
38.	I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39.	I am a steady person	1	2	3	4
40.	I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

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SELF-EVALUATION QUESTIONNAIRE SCORING KEY (Form Y-1, Y-2)

DIRECTIONS:

To use this stencil, fold this sheet in half and line up with the appropriate test page, either Form Y-1 or Form Y-2.

Simply total the scoring **weights** shown on the stencil for each response category. For example, for question #1,

if the respondent marked 3, then the **weight** would be 2.

Form Y-1

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1.	4	3	2	1
2.	4	3	2	1
3.	1	2	3	4
4.	1	2	3	4
5.	4	3	2	1
6.	1	2	3	4
7.	1	2	3	4
8.	4	3	2	1
9.	1	2	3	4
10.	4	3	2	1
11.	4	3	2	1
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	4	3	2	1
16.	4	3	2	1
17.	1	2	3	4
18.	1	2	3	4
19.	4	3	2	1
20.	4	3	2	1

Form Y-2

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21.	4	3	2	1
22.	1	2	3	4
23.	4	3	2	1
24.	1	2	3	4
25.	1	2	3	4
26.	4	3	2	1
27.	4	3	2	1
28.	1	2	3	4
29.	1	2	3	4
30.	4	3	2	1
31.	1	2	3	4
32.	1	2	3	4
33.	4	3	2	1
34.	4	3	2	1
35.	1	2	3	4
36.	4	3	2	1
37.	1	2	3	4
38.	1	2	3	4
39.	4	3	2	1
40.	1	2	3	4

```
QF    -    Form QF  MOS 36-Item Short-Form Health Survey (rev 2)

Date file created:  13 May 2006
Observations:           7377
Variables:                58

Variable                                               Variable
  Name        Variable Label                    Type    Length    Format

emotwb      SF36 Sherbourne:  emotional well-being    Num       8
enerfat     SF36 Sherbourne: energy/fatigue           Num       8
form        Form abreviation and revision number      Char      4
formdate    #4 cnvrtd to #days frm RZ/scr strt        Num       8
genhlth     SF36 Sherbourne: general health           Num       8
limemot     SF36 Sherbourne: limits due to emotions   Num       8
limhlth     SF36 Sherbourne: limits due to health     Num       8
mcs         SF36 Ware: mental component scale         Num       8
newnett     New NETT patient ID no.                   Char      5
pain        SF36 Sherbourne: pain                     Num       8
pcs         SF36 Ware: physical component scale       Num       8
physfunc    SF36 Sherbourne: physical functioning     Num       8
qf210       10  Health, in general                    Char      1
qf211       11  Health now compared to 1 yr ago       Char      1
qf215       15  Physical health interfered w/activit  Char      1
qf216       16  Bodily pain in past 4 weeks           Char      1
qf217       17  Pain interfered with normal work      Char      1
qf219       19  Health interfered with social activi  Char      1
qf212a      12a Vigorous activities                   Char      1
qf212b      12b Moderate activities                   Char      1
qf212c      12c Lifting/carrying groceries            Char      1
qf212d      12d Climbing several flights of stairs    Char      1
qf212e      12e Climbing one flight of stairs         Char      1
qf212f      12f Bending, kneeling, stooping           Char      1
qf212g      12g Walking more than a mile              Char      1
qf212h      12h Walking several blocks                Char      1
qf212i      12i Walking one block                     Char      1
qf212j      12j Bathing/dressing self                 Char      1
qf213a      13a Cut down time working                 Char      1
qf213b      13b Accomplished less than liked          Char      1
qf213c      13c Limited activities                    Char      1
qf213d      13d Difficulty performing activities      Char      1
qf214a      14a Cut down time working                 Char      1
qf214b      14b Accomplished less than liked          Char      1
qf214c      14c Was less careful                      Char      1
qf218a      18a Feel full of pep                      Char      1
qf218b      18b Been nervous                          Char      1
qf218c      18c Felt down in the dumps                Char      1
qf218d      18d Felt calm and peaceful                Char      1
qf218e      18e Have lots of energy                   Char      1
qf218f      18f Felt downhearted and blue             Char      1
qf218g      18g Felt worn out                         Char      1
qf218h      18h Been happy                            Char      1
qf218i      18i Felt tired                            Char      1
qf220a      20a Get sick easier than other people     Char      1
qf220b      20b Healthy as anybody                    Char      1
qf220c      20c Expect health to get worse            Char      1
qf220d      20d Health is excellent                   Char      1
socfunc     SF36 Sherbourne: social functioning       Num       8
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ    Char      3
wgenhlth    SF36 Ware: general health                 Num       8
wmenhlth    SF36 Ware: mental health                  Num       8
wpain       SF36 Ware: pain                           Num       8
wphyfunc    SF36 Ware: physical functioning           Num       8
wrolemot    SF36 Ware: role emotions                  Num       8
wrolephy    SF36 Ware: role physical                  Num       8
wsocfunc    SF36 Ware: social functioning             Num       8
wvital      SF36 Ware: vitality                       Num       8
```

MOS 36-Item Short-Form Health Survey

> **Purpose**: To obtain the patient's views of his/her health.
> **When**: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, f18, f24, f36, f48, f60.
> **Administered by**: Self-administered, but Quality of Life Assessor must be available at visits to answer questions and review completed forms.
> **Respondent**: Patient without help from spouse or family.
> **Instructions**: Clinic staff complete page 1 of this form; the patient completes pages 2-8. A QOL label (with patient ID, name code, and appropriate visit code) should be affixed to the upper right corner of pages 2-8. **Pre randomization:** The patient should meet with the Quality of Life Assessor, be trained in completion of the form, and then should complete the form. The Quality of Life Assessor should review the completed form for missing responses and resolve any problems before the patient leaves the clinic. Page 1 should then be completed by clinic staff and re-attached to pages 2-8. **Post randomization:** Pages 2-8 should be mailed to the patient 2 weeks prior to the scheduled NETT clinic visit with instructions to complete the form at home and to bring the completed form to the next NETT clinic visit. When the patient returns for the visit, the Quality of Life Assessor should review the form for completeness and obtain responses for missing items during the clinic visit. If the patient did not bring a completed form to the visit, the patient should complete the form at the visit. Page 1 should be completed by clinic staff and re-attached to pages 2-8. Use the date the form was completed for the visit date. If the patient did not write in a date, use the date of the clinic visit for the visit date.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code:

    _____ _____ _____ _____ _____

4. Visit date *(date patient completed the form)*:

    _____ _____ - _____ _____ - _____ _____
    day   mon   year

5. Visit code: _____ _____ _____

6. Form & revision: __q__ __f__ __2__

B. Administrative information
(To be completed by clinic staff after survey is completed.)

7. Quality of Life Assessor
    a. PIN: _____ _____ _____
    b. Signature:

    _____

8. Clinic Coordinator
    a. PIN: _____ _____ _____
    b. Signature:

    _____

9. Date form reviewed:

    _____ _____ - _____ _____ - _____ _____
    day   mon   year

MOS 36-Item Short-Form Health Survey

Instructions: This survey asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities.

(Items 1-9 are reserved for clinic use.)

10. In general, would you say your health is:

Circle One

Excellent 1

Very good 2

Good 3

Fair 4

Poor 5

11. Compared to one year ago, how would you rate your health in general now?

Much better now than one year ago 1

Somewhat better now than one year ago 2

About the same 3

Somewhat worse now than one year ago 4

Much worse now than one year ago 5

12. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

Activities	Circle one		
	Yes, limited a lot	**Yes, limited a little**	**No, not limited at all**
a. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports:	1	2	3
b. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf:	1	2	3
c. Lifting or carrying groceries:	1	2	3
d. Climbing several flights of stairs:	1	2	3
e. Climbing one flight of stairs:	1	2	3
f. Bending, kneeling, or stooping:	1	2	3
g. Walking more than a mile:	1	2	3
h. Walking several blocks:	1	2	3
i. Walking one block:	1	2	3
j. Bathing or dressing yourself:	1	2	3

National Emphysema Treatment Trial

NETT

Affix label here
180

Pt ID: __ __ __ __

Namecode: __ __ __ __ __

13. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

	Circle one	
	Yes	**No**
a. Cut down on the amount of time you spent on work or other activities:	1	2
b. Accomplished less than you would like:	1	2
c. Were limited in the kind of work or other activities:	1	2
d. Had difficulty performing the work or activities (for example, it took extra effort):	1	2

14. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

	Circle one	
	Yes	**No**
a. Cut down on the amount of time you spent on work or other activities:	1	2
b. Accomplished less than you would like:	1	2
c. Didn't do work or other activities as carefully as usual:	1	2

15. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

	Circle One
Not at all	1
Slightly	2
Moderately	3
Quite a bit	4
Extremely	5

16. How much bodily pain have you had during the past 4 weeks?

None	1
Very mild	2
Mild	3
Moderate	4
Severe	5
Very severe	6

17. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Circle One

Not at all 1

A little bit 2

Moderately 3

Quite a bit 4

Extremely 5

18. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks:

	Circle one					
	All of the time	**Most of the time**	**A good bit of the time**	**Some of the time**	**A little of the time**	**None of the time**
a. Did you feel full of pep?	1	2	3	4	5	6
b. Have you been a very nervous person?	1	2	3	4	5	6
c. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
d. Have you felt calm and peaceful?	1	2	3	4	5	6

	Circle one					
	All of the time	**Most of the time**	**A good bit of the time**	**Some of the time**	**A little of the time**	**None of the time**
e. Did you have a lot of energy?	1	2	3	4	5	6
f. Have you felt downhearted and blue?	1	2	3	4	5	6
g. Did you feel worn out?	1	2	3	4	5	6
h. Have you been a happy person?	1	2	3	4	5	6
i. Did you feel tired?	1	2	3	4	5	6

19.   During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

Circle One

All of the time 1

Most of the time 2

Some of the time 3

A little of the time 4

None of the time 5

20. How TRUE or FALSE is *each* of the following statements for you.

	Circle one				
	Definitely true	**Mostly true**	**Don't know**	**Mostly false**	**Definitely false**
a. I seem to get sick a little easier than other people	1	2	3	4	5
b. I am as healthy as anybody I know	1	2	3	4	5
c. I expect my health to get worse	1	2	3	4	5
d. My health is excellent	1	2	3	4	5

21. Date completed:

_____

Please bring this completed survey with you to your scheduled NETT clinic visit.

```
QG    -    Form QG  The St Georges Respiratory Questionnaire (rev 2)

Date file created:  13 May 2006
Observations:            7383
Variables:                 59

Variable                                              Variable
  Name      Variable Label                     Type   Length    Format

act         SGRQ activity score                Num      8
form        Form abreviation and revision number  Char   4
formdate    #4 cnvrtd to #days frm RZ/scr strt Num      8
imp         SGRQ impact score                  Num      8
newnett     New NETT patient ID no.            Char     5
qg210       10  Coughed over last year         Char     1
qg211       11  Brought up phlegm over last year  Char  1
qg212       12  Had shortness of breath over last ye  Char  1
qg213       13  Had wheezing attacks over last year  Char  1
qg214       14  Had chest trouble over last year  Char   1
qg215       15  Length of attack of chest trouble  Char   1
qg216       16  Number of good days/week       Char     1
qg217       17  Wheeze worse in the morning    Char     1
qg218       18  Describe chest condition       Char     1
qg219       19  Chest trouble affects work     Char     1
qg220       20  Breathless when sitting/lying still  Char  1
qg221       21  Breathless when washing/dressing  Char   1
qg222       22  Breathless when walking around house  Char  1
qg223       23  Breathless when walking on level  Char   1
qg224       24  Breathless when walking up stairs  Char   1
qg225       25  Breathless when walking hills  Char     1
qg226       26  Breathless when playing sports  Char    1
qg227       27  Cough hurts                    Char     1
qg228       28  Cough makes me tired           Char     1
qg229       29  Breathless when I talk         Char     1
qg230       30  Breathless when I bend over    Char     1
qg231       31  Cough disturbs sleep           Char     1
qg232       32  Get exhausted easily           Char     1
qg233       33  Cough is embarrassing          Char     1
qg234       34  Chest trouble is nuisance to family/  Char  1
qg235       35  Panic when cannot get breath   Char     1
qg236       36  Feel not in control of chest problem  Char  1
qg237       37  Do not expect chest to get better  Char   1
qg238       38  Frail because of chest         Char     1
qg239       39  Exercise is not safe           Char     1
qg240       40  Everything seems too much of an effo  Char  1
qg241       41  Medication does not help very much  Char   1
qg242       42  Embarrassed to use medication in pub  Char  1
qg243       43  Unpleasant side effects from medicin  Char  1
qg244       44  Medication interferes with life a lo  Char  1
qg245       45  Takes a long time to wash/dress  Char    1
qg246       46  Takes a long time to take bath/showe  Char  1
qg247       47  Walk slower than other people  Char     1
qg248       48  Housework takes a long time    Char     1
qg249       49  Walk slowly up stairs or stop  Char     1
qg250       50  Must slow down/stop if walk fast  Char    1
qg251       51  Difficult to do easy things    Char     1
qg252       52  Difficult to do moderate things  Char    1
qg253       53  Difficult to do strenous things  Char    1
qg254       54  Cannot play sports or games    Char     1
qg255       55  Cannot go out for entertainment  Char    1
qg256       56  Cannot go out shopping         Char     1
qg257       57  Cannot do housework            Char     1
qg258       58  Cannot go far from bed or chair  Char    1
qg259       59  How chest affects patient      Char     1
qg241a      41a Take any medications           Char     1
sgrqtot     SGRQ overall score                 Num      8
symp        SGRQ symptoms score                Num      8
```

QG   -   Form QG The St Georges Respiratory Questionnaire (rev 2)

Date file created: 13 May 2006
Observations: 7383
Variables: 59

Variable Name	Variable Label	Type	Variable Length	Format
visit	s1,s2,s3,rz,n,fxx where xx=mos from RZ	Char	3	

The St. George's Respiratory Questionnaire

Purpose: To learn more about how the patient's breathing troubles him/her and affects his/her life.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, f18, f24, f36, f48, f60.

Administered by: Self-administered, but Quality of Life Assessor must be available at visits to answer questions and review completed questionnaires.

Respondent: Patient without help from spouse or family.

Instructions: Clinic staff complete page 1 of this form; the patient completes pages 2-13. A QOL label (with patient ID, name code, and appropriate visit code) should be affixed to the upper right corner of pages 2-13. **Pre randomization:** The patient should meet with the Quality of Life Assessor, be trained in completion of the form, and then should complete the form. The Quality of Life Assessor should review the completed form for missing responses and resolve any problems before the patient leaves the clinic. Page 1 should then be completed by clinic staff and re-attached to pages 2-13. **Post randomization:** Pages 2-13 should be mailed to the patient 2 weeks prior to the scheduled NETT clinic visit with instructions to complete the form at home and to bring the completed form to the next NETT clinic visit. When the patient returns for the visit, the Quality of Life Assessor should review the form for completeness and obtain responses for missing items during the clinic visit. If the patient did not bring a completed form to the visit, the patient should complete the form at the visit. Page 1 should be completed by clinic staff and re-attached to pages 2-13. Use the date the form was completed for the visit date. If the patient did not write in a date, use the date of the clinic visit for the visit date.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code:

   _____ _____ _____ _____ _____

4. Visit date *(date patient completed the form)*:

   _____ _____ - _____ _____ - _____ _____
   day   mon   year

5. Visit code: _____ _____ _____

6. Form & revision: **q** **g** **2**

B. Administrative information
(To be completed by clinic staff after questionnaire is completed)

7. Quality of Life Assessor
   a. PIN: _____ _____ _____
   b. Signature: _____

8. Clinic Coordinator
   a. PIN: _____ _____ _____
   b. Signature: _____

9. Date form reviewed:

   _____ _____ - _____ _____ - _____ _____
   day   mon   year

Paul W. Jones, Division of Physiological Medicine,
St. George's Hospital Medical School.

NETT Form QG

Revision 2 (27 May 98)   The St. George's Respiratory Questionnaire   1 of 13

The St. George's Respiratory Questionnaire

This questionnaire is designed to help us learn much more about how your breathing is troubling you and how it affects your life. We are using it to find out which aspects of your illness cause you the most problems, rather than what the doctors and nurses think your problems are.

Please read the instructions carefully and ask if you do not understand anything. Do not spend too long deciding about your answers.

(Items 1-9 are reserved for clinic use.)

Part 1

Questions about how much chest trouble you have had over the last year. Please circle one answer for each question.

10. Over the last year, I have coughed:

	Circle One
Most days a week	1
Several days a week	2
A few days a month	3
Only with chest infections	4
Not at all	5

11. Over the last year, I have brought up phlegm (sputum):

Circle One

Most days a week 1

Several days a week 2

A few days a month 3

Only with chest infections 4

Not at all 5

12. Over the last year, I have had shortness of breath:

Most days a week 1

Several days a week 2

A few days a month 3

Only with chest infections 4

Not at all 5

NETT Form QG

Revision 2 (27 May 98)

Paul W. Jones, Division of Physiological Medicine,
St. George's Hospital Medical School.
The St. George's Respiratory Questionnaire

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13. Over the last year, I have had attacks of wheezing:

Circle One

Most days a week 1

Several days a week 2

A few days a month 3

Only with chest infections 4

Not at all 5

14. During the last year, how many severe or very unpleasant attacks of chest trouble have you had:

More than 3 attacks 1

3 attacks 2

2 attacks 3

1 attack 4

No attacks 5

Go to 16. ◄┘

NETT Form QG

Revision 2 (27 May 98)

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The St. George's Respiratory Questionnaire

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15. How long did the worst attack of chest trouble last:

Circle One

A week or more 1

3 or more days 2

1 or 2 days 3

Less than a day 4

16. Over the last year, in an average week, how many good days (with little chest trouble) have you had:

No good days 1

1 or 2 good days 2

3 or 4 good days 3

Nearly every day is good 4

Every day is good 5

17. If you have a wheeze, is it worse in the morning:

No 1

Yes 2

Don't have a wheeze 3

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NETT Form QG
St. George's Hospital Medical School.

Revision 2 (27 May 98)
The St. George's Respiratory Questionnaire
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Part 2

<u>Section 1</u>

18. How would you describe your chest condition:

	Circle One
The most important problem I have	1
Causes me quite a lot of problems	2
Causes me a few problems	3
Causes no problem	4

19. If you have ever had paid employment:

My chest trouble made me stop work	1
My chest trouble interferes/interfered with my work or made me change my work	2
My chest trouble does not/did not affect my work	3
Never had paid employment	4

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NETT Form QG

Revision 2 (27 May 98)

The St. George's Respiratory Questionnaire

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Section 2

Questions about what activities usually make you feel breathless <u>these</u> <u>days</u>. For each item, please circle either 1 for True or 2 for False as it applies to you.

		Circle One	
		TRUE	**FALSE**
20.	Sitting or lying still:	1	2
21.	Getting washed or dressed:	1	2
22.	Walking around the home:	1	2
23.	Walking outside on the level:	1	2
24.	Walking up a flight of stairs:	1	2
25.	Walking hills:	1	2
26.	Playing sports or games:	1	2

Section 3

Some more questions about your cough and breathlessness <u>these days</u>. For each item, please circle either 1 for True or 2 for False as it applies to you.

		Circle One	
		TRUE	**FALSE**
27.	My cough hurts:	1	2
28.	My cough makes me tired:	1	2

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NETT Form QG

Revision 2 (27 May 98)　　　　The St. George's Respiratory Questionnaire　　　　7 of 13

Circle One

	TRUE	FALSE
29. I am breathless when I talk:	1	2
30. I am breathless when I bend over:	1	2
31. My cough or breathing disturbs my sleep:	1	2
32. I get exhausted easily:	1	2

Section 4

Questions about other effects that your chest trouble may have on you <u>these</u> <u>days</u>. For each item, please circle 1 for True or 2 for False as it applies to you.

Circle One

	TRUE	FALSE
33. My cough or breathing is embarrassing in public:	1	2
34. My chest trouble is a nuisance to my family, friends, or neighbors:	1	2
35. I get afraid or panic when I cannot get my breath:	1	2
36. I feel that I am not in control of my chest problem:	1	2
37. I do not expect my chest to get any better:	1	2
38. I have become frail or an invalid because of my chest:	1	2

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NETT Form QG

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The St. George's Respiratory Questionnaire

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	Circle One	
	TRUE	**FALSE**
39. Exercise is not safe for me:	1	2
40. Everything seems too much of an effort:	1	2

Section 5

	YES	**NO**
41a. Do you take any medications:	1	2

Go to 45. ⤶

Questions about your medication. To complete this section, please circle either 1 for True or 2 for False as it applies to you.

	Circle One	
	TRUE	**FALSE**
41. My medication does not help me very much:	1	2
42. I get embarrassed using my medication in public:	1	2
43. I have unpleasant side effects from my medication:	1	2
44. My medication interferes with my life a lot:	1	2

NETT Form QG

Revision 2 (27 May 98)

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St. George's Hospital Medical School.
The St. George's Respiratory Questionnaire

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Section 6

These are questions about how your activities might be affected by your breathing. For each question, please circle 1 for True if one or more parts applies to you because of your breathing. Otherwise, circle 2 for False.

	Circle One	
	TRUE	**FALSE**
45. I take a long time to get washed or dressed:	1	2
46. I cannot take a bath or shower, or I take a long time:	1	2
47. I walk slower than other people, or I stop for rests:	1	2
48. Jobs such as housework take a long time, or I have to stop for rests:	1	2
49. If I walk up one flight of stairs, I have to go slowly or stop:	1	2
50. If I hurry or walk fast, I have to stop or slow down:	1	2
51. My breathing makes it difficult to do things such as walk up hills, carrying things up stairs, light gardening such as weeding, dance, play bowls, or play golf:	1	2
52. My breathing makes it difficult to do things such as carry heavy loads, dig the garden or shovel snow, jog or walk at 5 miles per hour, play tennis or swim:	1	2
53. My breathing makes it difficult to do things such as very heavy manual work, run, cycle, swim fast or play competitive sports:	1	2

NETT Form QG

Revision 2 (27 May 98)

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St. George's Hospital Medical School.
The St. George's Respiratory Questionnaire

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Section 7

We would like to know how your chest trouble <u>usually</u> affects your daily life. Please circle either 1 for True or 2 for False as it applies to you <u>because of your chest trouble</u>. (Remember that True only applies to you if you can not do something because of your breathing.)

		Circle One	
		TRUE	**FALSE**
54.	I cannot play sports or games:	1	2
55.	I cannot go out for entertainment or recreation:	1	2
56.	I cannot go out of the house to do the shopping:	1	2
57.	I cannot do housework:	1	2
58.	I cannot move far from my bed or chair:	1	2

NETT Form QG

Revision 2 (27 May 98)

Paul W. Jones, Division of Physiological Medicine,
St. George's Hospital Medical School.
The St. George's Respiratory Questionnaire

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Here is a list of other activities that your chest trouble may prevent you doing. (You do not have to circle these, they are just to remind you of ways in which your breathlessness may affect you):

      Going for walks or walking the dog

      Doing things at home or in the garden

      Sexual intercourse

      Going out to church, or place of entertainment

      Going out in bad weather or into smoky rooms

      Visiting family or friends or playing with children

Please write in any other important activities that your chest trouble may stop you doing:

_____

_____

_____

NETT Form QG

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The St. George's Respiratory Questionnaire

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59. Now, would you circle (one only) which you think best describes how your chest affects you:

Circle One

It does not stop me doing anything I would like to do 1

It stops me doing one or two things I would like to do 2

It stops me doing most of the things I would like to do 3

It stops me doing everything I would like to do 4

60. Date completed:

_____

Please bring this completed questionnaire with your to your scheduled NETT clinic visit.

Paul W. Jones, Division of Physiological Medicine,
St. George's Hospital Medical School.

NETT Form QG

Revision 2 (27 May 98)   The St. George's Respiratory Questionnaire   13 of 13

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QS    -    Form QS  UCSD Med Center Pulmonary Rehab Shortness-of-Breath Questionnaire
(rev 2)

Date file created:  13 May 2006
Observations:            7385
Variables:                 29

Variable                                              Variable
  Name       Variable Label                   Type    Length    Format

form       Form abreviation and revision number    Char       4
formdate   #4 cnvrtd to #days frm RZ/scr strt      Num        8
newnett    New NETT patient ID no.                 Char       5
qs210      10 Breathlessness, at rest              Char       1
qs211      11 Walking on a level at own pace       Char       1
qs212      12 Walking on a level w/others same age Char       1
qs213      13 Walking up a hill                    Char       1
qs214      14 Walking up stairs                    Char       1
qs215      15 Breathlessness, while eating         Char       1
qs216      16 Breathlessness, standing up from chai Char      1
qs217      17 Breathlessness, brushing teeth       Char       1
qs218      18 Breathlessness, shaving/brushing hair Char      1
qs219      19 Breathlessness, showering/bathing    Char       1
qs220      20 Breathlessness, dressing             Char       1
qs221      21 Breathlessness, picking up           Char       1
qs222      22 Breathlessness, doing dishes         Char       1
qs223      23 Breathlessness, sweeping/vacuuming   Char       1
qs224      24 Breathlessness, making bed           Char       1
qs225      25 Breathlessness, shopping             Char       1
qs226      26 Breathlessness, doing laundry        Char       1
qs227      27 Breathlessness, washing car          Char       1
qs228      28 Breathlessness, mowing lawn          Char       1
qs229      29 Breathlessness, watering lawn        Char       1
qs230      30 Breathlessness, sexual activities    Char       1
qs231      31 Shortness of breath                  Char       1
qs232      32 Fear of hurting self by overexertion Char       1
qs233      33 Fear of shortness of breath          Char       1
sobqtot    UCSD SOBQ total score                   Num        8
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char       3
```

UCSD Medical Center
Pulmonary Rehabilitation Program
Shortness-of-Breath Questionnaire

Purpose: To obtain the patient's views of his/her shortness of breath.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, f18, f24, f36, f48, f60.

Administered by: Self-administered, but Quality of Life Assessor must be available at visits to answer questions and review completed forms.

Respondent: Patient without help from spouse or family.

Instructions: Clinic staff complete page 1 of this form; the patient completes pages 2-5. A QOL label (with patient ID, name code, and appropriate visit code) should be affixed to the upper right corner of pages 2-5. **Pre randomization:** The patient should meet with the Quality of Life Assessor, be trained in completion of the form, and then should complete the form. The Quality of Life Assessor should review the completed form for missing responses and resolve any problems before the patient leaves the clinic. Page 1 should then be completed by clinic staff and re-attached to pages 2-5. **Post randomization:** Pages 2-5 should be mailed to the patient 2 weeks prior to the scheduled NETT clinic visit with instructions to complete the form at home and to bring the completed form to the next NETT clinic visit. When the patient returns for the visit, the Quality of Life Assessor should review the form for completeness and obtain responses for missing items during the clinic visit. If the patient did not bring a completed form to the visit, the patient should complete the form at the visit. Page 1 should be completed by clinic staff and re-attached to pages 2-5. Use the date the form was completed for the visit date. If the patient did not write in a date, use the date of the clinic visit for the visit date.

A. Clinic, visit, and patient identification

   1. Clinic ID: ____ ____ ____ ____

   2. Patient ID: ____ ____ ____ ____ ____

   3. Patient name code:

                   ____ ____ ____ ____

   4. Visit date *(date patient completed the form)*:

      ____ -____   ____ -____   ____
       day   mon   year

   5. Visit code: ____ ____ ____

   6. Form & revision: **q** **s** **2**

B. Administrative information
(To be completed by clinic staff after questionnaire is completed.)

   7. Quality of Life Assessor
      a. PIN: ____ ____ ____
      b. Signature:

                _____

   8. Clinic Coordinator
      a. PIN: ____ ____ ____
      b. Signature:

                _____

   9. Date form reviewed:

      ____ ____ -____   ____ -____   ____
         day   mon   year

NETT Form QS
Revision 2 (27 May 98)

UCSD Medical Center
Pulmonary Rehabilitation Program
Shortness-of-Breath-Questionnaire
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UCSD Medical Center
Pulmonary Rehabilitation Program
Shortness-of-Breath Questionnaire

Please rate the breathlessness you experience when you do, or if you were to do, each of the following tasks. **Do not skip any items**. If you've never performed a task or no longer perform it, give your best estimate of the breathlessness you would experience while doing that activity. Please review the two sample questions below before turning the page to begin the questionnaire.

When I do, or if I were to do, the following tasks, I would rate my breathlessness as:

0	None at all
1	
2	
3	
4	Severe
5	Maximal or unable to do because of breathlessness

1. Brushing teeth: **0**   **1**   **2**   ③   **4**   **5**

Harry has felt moderately short of breath during the past week while brushing his teeth and so circles a three for this activity.

2. Mowing the lawn: **0**   **1**   **2**   **3**   **4**   ⑤

Anne has never mowed the lawn before but estimates that she would have been too breathless to do this activity during the past week. She circles a five for this activity.

(Items 1-9 are reserved for clinic use.)

When I do, or if I were to do, the following tasks, I would rate my breathlessness as:

0	None at all
1	
2	
3	
4	Severe
5	Maximal or unable to do because of breathlessness

Circle one

10.	At rest:	**0**	**1**	**2**	**3**	**4**	**5**
11.	Walking on a level at your own pace:	**0**	**1**	**2**	**3**	**4**	**5**
12.	Walking on a level with others your age:	**0**	**1**	**2**	**3**	**4**	**5**
13.	Walking up a hill:	**0**	**1**	**2**	**3**	**4**	**5**
14.	Walking up stairs:	**0**	**1**	**2**	**3**	**4**	**5**
15.	While eating:	**0**	**1**	**2**	**3**	**4**	**5**
16.	Standing up from a chair:	**0**	**1**	**2**	**3**	**4**	**5**
17.	Brushing teeth:	**0**	**1**	**2**	**3**	**4**	**5**
18.	Shaving and/or brushing hair:	**0**	**1**	**2**	**3**	**4**	**5**
19.	Showering/bathing:	**0**	**1**	**2**	**3**	**4**	**5**

When I do, or if I were to do, the following tasks, I would rate my breathlessness as:

0	None at all
1	
2	
3	
4	Severe
5	Maximal or unable to do because of breathlessness

Circle one

20.	Dressing:	**0**	**1**	**2**	**3**	**4**	**5**
21.	Picking up and straightening:	**0**	**1**	**2**	**3**	**4**	**5**
22.	Doing dishes:	**0**	**1**	**2**	**3**	**4**	**5**
23.	Sweeping / vacuuming:	**0**	**1**	**2**	**3**	**4**	**5**
24.	Making bed:	**0**	**1**	**2**	**3**	**4**	**5**
25.	Shopping:	**0**	**1**	**2**	**3**	**4**	**5**
26.	Doing laundry:	**0**	**1**	**2**	**3**	**4**	**5**
27.	Washing car:	**0**	**1**	**2**	**3**	**4**	**5**
28.	Mowing lawn:	**0**	**1**	**2**	**3**	**4**	**5**
29.	Watering lawn:	**0**	**1**	**2**	**3**	**4**	**5**
30.	Sexual activities:	**0**	**1**	**2**	**3**	**4**	**5**

How much do these limit you in your daily life?

0	None at all
1	
2	
3	
4	Severe
5	Maximal or unable to do because of breathlessness

Circle one

31. Shortness of breath: **0** **1** **2** **3** **4** **5**

32. Fear of "hurting myself" by overexerting: **0** **1** **2** **3** **4** **5**

33. Fear of shortness of breath: **0** **1** **2** **3** **4** **5**

34. Date completed:

_____

Please bring this completed questionnaire with your to your scheduled NETT clinic visit.

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QW    -    Form QW  Quality of Well-Being Scale V1.04 (rev 2)

Date file created:  13 May 2006
Observations:            7370
Variables:                261

Variable                                              Variable
  Name        Variable Label                   Type   Length   Format

form        Form abreviation and revision number    Char      4
formdate    #4 cnvrtd to #days frm RZ/scr strt      Num       8
newnett     New NETT patient ID no.                 Char      5
qw252       52  Any other symptoms                  Char      1
qw271       71  Health rating (0-100)               Char      3
qw211a      11a Blind/severely impaired vision-both Char      1
qw211b      11b Blind/severely impaired vision-one e Char     1
qw211c      11c Speech problems                     Char      1
qw211d      11d Missing/paralyzed hands, feet, arms, Char     1
qw211e      11e Missing/paralyzed fingers/toes       Char     1
qw211f      11f Any deformity                       Char      1
qw211g      11g General fatigue/weakness            Char      1
qw211h      11h Unwanted weight gain or loss        Char      1
qw211i      11i Under or over weight                Char      1
qw211j      11j Problem chewing food adequately     Char      1
qw211k      11k Hearing loss of deafness            Char      1
qw211l      11l Noticeable skin problems            Char      1
qw211m      11m Eczema or burning/itching rash      Char      1
qw212a      12a Dentures                            Char      1
qw212b      12b Oxygen tank                         Char      1
qw212c      12c Prosthesis                          Char      1
qw212d      12d Eye glasses or contact lenses       Char      1
qw212e      12e Hearing aide                        Char      1
qw212f      12f Magnifying glass                    Char      1
qw212g      12g Neck, back or leg brace             Char      1
qw213a      13a Vision problems - no days           Char      1
qw213b      13b Vision problems - yesterday         Char      1
qw213c      13c Vision problems - 2 days ago        Char      1
qw213d      13d Vision problems - 3 days ago        Char      1
qw214a      14a Eye pain - no days                  Char      1
qw214b      14b Eye pain - yesterday                Char      1
qw214c      14c Eye pain - 2 days ago               Char      1
qw214d      14d Eye pain - 3 days ago               Char      1
qw215a      15a Headache - no days                  Char      1
qw215b      15b Headache - yesterday                Char      1
qw215c      15c Headache - 2 days ago               Char      1
qw215d      15d Headache - 3 days ago               Char      1
qw216a      16a Dizziness, earache - no days        Char      1
qw216b      16b Dizziness, earache - yesterday      Char      1
qw216c      16c Dizziness, earache - 2 days ago     Char      1
qw216d      16d Dizziness, earache - 3 days ago     Char      1
qw217a      17a Difficulty hearing - no days        Char      1
qw217b      17b Difficulty hearing - yesterday      Char      1
qw217c      17c Difficulty hearing - 2 days ago     Char      1
qw217d      17d Difficulty hearing - 3 days ago     Char      1
qw218a      18a Stuffy/bloody nose - no days        Char      1
qw218b      18b Stuffy/bloody nose - yesterday      Char      1
qw218c      18c Stuffy/bloody nose - 2 days ago     Char      1
qw218d      18d Stuffy/bloody nose - 3 days ago     Char      1
qw219a      19a Sore throat/hoarseness - no days    Char      1
qw219b      19b Sore throat/hoarseness - yesterday  Char      1
qw219c      19c Sore throat/hoarseness - 2 days ago Char      1
qw219d      19d Sore throat/hoarseness - 3 days ago Char      1
qw220a      20a Tooth ache/jaw pain - no days       Char      1
qw220b      20b Tooth ache/jaw pain - yesterday     Char      1
qw220c      20c Tooth ache/jaw pain - 2 days ago    Char      1
qw220d      20d Tooth ache/jaw pain - 3 days ago    Char      1
qw221a      21a Bleeding lips/tongue - no days      Char      1
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QW      -     Form QW  Quality of Well-Being Scale V1.04 (rev 2)

Date file created:  13 May 2006
Observations:              7370
Variables:                  261

Variable                                                    Variable
  Name          Variable Label                     Type     Length      Format

qw221b        21b Bleeding lips/tongue - yesterday    Char        1
qw221c        21c Bleeding lips/tongue - 2 days ago   Char        1
qw221d        21d Bleeding lips/tongue - 3 days ago   Char        1
qw222a        22a Coughing/wheezing - no days         Char        1
qw222b        22b Coughing/wheezing - yesterday       Char        1
qw222c        22c Coughing/wheezing - 2 days ago      Char        1
qw222d        22d Coughing/wheezing - 3 days ago      Char        1
qw223a        23a Shortness of breath - no days       Char        1
qw223b        23b Shortness of breath - yesterday     Char        1
qw223c        23c Shortness of breath - 2 days ago    Char        1
qw223d        23d Shortness of breath - 3 days ago    Char        1
qw224a        24a Chest pain/pressure - no days       Char        1
qw224b        24b Chest pain/pressure - yesterday     Char        1
qw224c        24c Chest pain/pressure - 2 days ago    Char        1
qw224d        24d Chest pain/pressure - 3 days ago    Char        1
qw225a        25a Upset stomach/nausea - no days      Char        1
qw225b        25b Upset stomach/nausea - yesterday    Char        1
qw225c        25c Upset stomach/nausea - 2 days ago   Char        1
qw225d        25d Upset stomach/nausea - 3 days ago   Char        1
qw226a        26a Diarrhea, constipation - no days    Char        1
qw226b        26b Diarrhea, constipation - yesterday  Char        1
qw226c        26c Diarrhea, constipation - 2 days ago Char        1
qw226d        26d Diarrhea, constipation - 3 days ago Char        1
qw227a        27a Pain/blood in urine - no days       Char        1
qw227b        27b Pain/blood in urine - yesterday     Char        1
qw227c        27c Pain/blood in urine - 2 days ago    Char        1
qw227d        27d Pain/blood in urine - 3 days ago    Char        1
qw228a        28a Loss of bladder control - no days   Char        1
qw228b        28b Loss of bladder control - yesterday Char        1
qw228c        28c Loss of bladder control - 2 days ago Char       1
qw228d        28d Loss of bladder control - 3 days ago Char       1
qw229a        29a Genital pain - no days              Char        1
qw229b        29b Genital pain - yesterday            Char        1
qw229c        29c Genital pain - 2 days ago           Char        1
qw229d        29d Genital pain - 3 days ago           Char        1
qw230a        30a Broken bone - no days               Char        1
qw230b        30b Broken bone - yesterday             Char        1
qw230c        30c Broken bone - 2 days ago            Char        1
qw230d        30d Broken bone - 3 days ago            Char        1
qw231a        31a Pain in neck/back - no days         Char        1
qw231b        31b Pain in neck/back - yesterday       Char        1
qw231c        31c Pain in neck/back - 2 days ago      Char        1
qw231d        31d Pain in neck/back - 3 days ago      Char        1
qw232a        32a Pain in hips/sides - no days        Char        1
qw232b        32b Pain in hips/sides - yesterday      Char        1
qw232c        32c Pain in hips/sides - 2 days ago     Char        1
qw232d        32d Pain in hips/sides - 3 days ago     Char        1
qw233a        33a Pain in any joints - no days        Char        1
qw233b        33b Pain in any joints - yesterday      Char        1
qw233c        33c Pain in any joints - 2 days ago     Char        1
qw233d        33d Pain in any joints - 3 days ago     Char        1
qw234a        34a Swelling - no days                  Char        1
qw234b        34b Swelling - yesterday                Char        1
qw234c        34c Swelling - 2 days ago               Char        1
qw234d        34d Swelling - 3 days ago               Char        1
qw235a        35a Fever, chills or sweats - no days   Char        1
qw235b        35b Fever, chills or sweats - yesterday Char        1
qw235c        35c Fever, chills or sweats - 2 days ago Char       1
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QW     -     Form QW  Quality of Well-Being Scale V1.04 (rev 2)

Date file created:  13 May 2006
Observations:              7370
Variables:                  261

Variable                                              Variable
  Name        Variable Label                  Type    Length    Format

qw235d        35d Fever, chills or sweats - 3 days ago   Char        1
qw236a        36a Loss of consciousness - no days        Char        1
qw236b        36b Loss of consciousness - yesterday      Char        1
qw236c        36c Loss of consciousness - 2 days ago     Char        1
qw236d        36d Loss of consciousness - 3 days ago     Char        1
qw237a        37a Difficulty w/balance - no days         Char        1
qw237b        37b Difficulty w/balance - yesterday       Char        1
qw237c        37c Difficulty w/balance - 2 days ago      Char        1
qw237d        37d Difficulty w/balance - 3 days ago      Char        1
qw238a        38a Sleep problems - no days               Char        1
qw238b        38b Sleep problems - yesterday             Char        1
qw238c        38c Sleep problems - 2 days ago            Char        1
qw238d        38d Sleep problems - 3 days ago            Char        1
qw239a        39a Nervous, shaky - no days               Char        1
qw239b        39b Nervous, shaky - yesterday             Char        1
qw239c        39c Nervous, shaky - 2 days ago            Char        1
qw239d        39d Nervous, shaky - 3 days ago            Char        1
qw240a        40a Downhearted, blue - no days            Char        1
qw240b        40b Downhearted, blue - yesterday          Char        1
qw240c        40c Downhearted, blue - 2 days ago         Char        1
qw240d        40d Downhearted, blue - 3 days ago         Char        1
qw241a        41a Excessive worry, anxiety - no days     Char        1
qw241b        41b Excessive worry, anxiety - yesterday   Char        1
qw241c        41c Excessive worry, anxiety - 2 days ag   Char        1
qw241d        41d Excessive worry, anxiety - 3 days ag   Char        1
qw242a        42a Feeling out of control - no days       Char        1
qw242b        42b Feeling out of control - yesterday     Char        1
qw242c        42c Feeling out of control - 2 days ago    Char        1
qw242d        42d Feeling out of control - 3 days ago    Char        1
qw243a        43a Feeling lonely - no days               Char        1
qw243b        43b Feeling lonely - yesterday             Char        1
qw243c        43c Feeling lonely - 2 days ago            Char        1
qw243d        43d Feeling lonely - 3 days ago            Char        1
qw244a        44a Frustrated, irritated - no days        Char        1
qw244b        44b Frustrated, irritated - yesterday      Char        1
qw244c        44c Frustrated, irritated - 2 days ago     Char        1
qw244d        44d Frustrated, irritated - 3 days ago     Char        1
qw245a        45a Hangover - no days                     Char        1
qw245b        45b Hangover - yesterday                   Char        1
qw245c        45c Hangover - 2 days ago                  Char        1
qw245d        45d Hangover - 3 days ago                  Char        1
qw246a        46a Decreased sexual interest - no days    Char        1
qw246b        46b Decreased sexual interest - yesterda   Char        1
qw246c        46c Decreased sexual interest - 2 days a   Char        1
qw246d        46d Decreased sexual interest - 3 days a   Char        1
qw247a        47a Confusion, memory loss - no days       Char        1
qw247b        47b Confusion, memory loss - yesterday     Char        1
qw247c        47c Confusion, memory loss - 2 days ago    Char        1
qw247d        47d Confusion, memory loss - 3 days ago    Char        1
qw248a        48a Obsessive thoughts - no days           Char        1
qw248b        48b Obsessive thoughts - yesterday         Char        1
qw248c        48c Obsessive thoughts - 2 days ago        Char        1
qw248d        48d Obsessive thoughts - 3 days ago        Char        1
qw249a        49a Take any medications - no days         Char        1
qw249b        49b Take any medications - yesterday       Char        1
qw249c        49c Take any medications - 2 days ago      Char        1
qw249d        49d Take any medications - 3 days ago      Char        1
qw250a        50a Medically prescribed diet - no days    Char        1
```

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QW    -    Form QW  Quality of Well-Being Scale V1.04 (rev 2)

Date file created:  13 May 2006
Observations:           7370
Variables:              261

Variable                                              Variable
  Name       Variable Label                 Type      Length      Format

qw250b       50b Medically prescribed diet - yesterda    Char    1
qw250c       50c Medically prescribed diet - 2 days a    Char    1
qw250d       50d Medically prescribed diet - 3 days a    Char    1
qw251a       51a Appetite loss/overeating - no days      Char    1
qw251b       51b Appetite loss/overeating - yesterday    Char    1
qw251c       51c Appetite loss/overeating - 2 days ag    Char    1
qw251d       51d Appetite loss/overeating - 3 days ag    Char    1
qw252ab      52a Other symptom - yesterday               Char    1
qw252ac      52a Other symptom - 2 days ago              Char    1
qw252ad      52a Other symptom - 3 days ago              Char    1
qw252bb      52b Other symptom - yesterday               Char    1
qw252bc      52b Other symptom - 2 days ago              Char    1
qw252bd      52b Other symptom - 3 days ago              Char    1
qw253a       53a Been in hospital - no days              Char    1
qw253b       53b Been in hospital - yesterday            Char    1
qw253c       53c Been in hospital - 2 days ago           Char    1
qw253d       53d Been in hospital - 3 days ago           Char    1
qw254a       54a Need help w/personal care - no days     Char    1
qw254b       54b Need help w/personal care - yesterda    Char    1
qw254c       54c Need help w/personal care - 2 days a    Char    1
qw254d       54d Need help w/personal care - 3 days a    Char    1
qw255a       55a Drive a vehicle - no days               Char    1
qw255b       55a Drive a vehicle - yesterday             Char    1
qw255c       55c Drive a vehicle - 2 days ago            Char    1
qw255d       55d Drive a vehicle - 3 days ago            Char    1
qw256a       56a Use public transportation - no days     Char    1
qw256b       56b Use public transportation - yesterda    Char    1
qw256c       56c Use public transportation - 2 days a    Char    1
qw256d       56d Use public transportation - 3 days a    Char    1
qw257a       57a Not drive - no days                     Char    1
qw257b       57b Not drive - yesterday                   Char    1
qw257c       57c Not drive - 2 days ago                  Char    1
qw257d       57d Not drive - 3 days ago                  Char    1
qw258a       58a Trouble climbing stairs - no days       Char    1
qw258b       58b Trouble climbing stairs - yesterday     Char    1
qw258c       58c Trouble climbing stairs - 2 days ago    Char    1
qw258d       58d Trouble climbing stairs - 3 days ago    Char    1
qw259a       59a Avoid walking - no days                 Char    1
qw259b       59b Avoid walking - yesterday               Char    1
qw259c       59c Avoid walking - 2 days ago              Char    1
qw259d       59d Avoid walking - 3 days ago              Char    1
qw260a       60a Limp/use cane - no days                 Char    1
qw260b       60b Limp/use cane - yesterday               Char    1
qw260c       60c Limp/use cane - 2 days ago              Char    1
qw260d       60d Limp/use cane - 3 days ago              Char    1
qw261a       61a Avoid bending - no days                 Char    1
qw261b       61b Avoid bending - yesterday               Char    1
qw261c       61c Avoid bending - 2 days ago              Char    1
qw261d       61d Avoid bending - 3 days ago              Char    1
qw262a       62a Trouble lifting - no days               Char    1
qw262b       62b Trouble lifting - yesterday             Char    1
qw262c       62c Trouble lifting - 2 days ago            Char    1
qw262d       62d Trouble lifting - 3 days ago            Char    1
qw263a       63a Other physical limitations - no days    Char    1
qw263b       63b Other physical limitations - yesterd    Char    1
qw263c       63c Other physical limitations - 2 days     Char    1
qw263d       63d Other physical limitations - 3 days     Char    1
qw264a       64a Spend day in bed - no days              Char    1
```

```
QW    -    Form QW  Quality of Well-Being Scale V1.04 (rev 2)

Date file created:  13 May 2006
Observations:            7370
Variables:                261

Variable                                            Variable
  Name        Variable Label                 Type   Length     Format

qw264b        64b Spend day in bed - yesterday      Char      1
qw264c        64c Spend day in bed - 2 days ago     Char      1
qw264d        64d Spend day in bed - 3 days ago     Char      1
qw265a        65a Spend day in wheelchair - no days Char      1
qw265b        65b Spend day in wheelchair - yesterday Char    1
qw265c        65c Spend day in wheelchair - 2 days ago Char   1
qw265d        65d Spend day in wheelchair - 3 days ago Char   1
qw266a        66a Wheelchair in other's control-no da Char    1
qw266b        66b Wheelchair in other's control-yeste Char    1
qw266c        66c Wheelchair in other's control-2 day Char    1
qw266d        66d Wheelchair in other's control-3 day Char    1
qw267a        67a Need help w/activities - no days   Char      1
qw267b        67b Need help w/activities - yesterday Char      1
qw267c        67c Need help w/activities - 2 days ago Char     1
qw267d        67d Need help w/activities - 3 days ago Char     1
qw268a        68a Avoid activities - no days         Char      1
qw268b        68b Avoid activities - yesterday       Char      1
qw268c        68c Avoid activities - 2 days ago      Char      1
qw268d        68d Avoid activities - 3 days ago      Char      1
qw269a        69a Change plans - no days             Char      1
qw269b        69b Change plans - yesterday           Char      1
qw269c        69c Change plans - 2 days ago          Char      1
qw269d        69d Change plans - 3 days ago          Char      1
qwb_1         QWB score 1 day ago                    Num       8
qwb_2         QWB score 2 days ago                   Num       8
qwb_3         QWB score 3 days ago                   Num       8
qwb_ave       QWB over all 3 days (average)          Num       8
qwb_tot       QWB over all 3 days (sum)              Num       8
visit         s1,s2,s3,rz,n,fxx where xx=mos from RZ Char      3
```

QWB - Quality of Well-Being Scale V1.04

Purpose: To assess the patient's health problems in the last 3 days.

When: Visits s1, s2 (if the s1 assessment was done more than 42 days prior to the start of Core Rehabilitation), s3, rz (if more than 21 days since post rehabilitation assessment), f06, f12, f18, f24, f36, f48, f60.

Administered by: Self-administered, but Quality of Life Assessor must be available at visits to answer questions and review completed forms.

Respondent: Patient without help from spouse or family.

Instructions: Clinic staff complete page 1 of this form; the patient completes pages 2-12. A QOL label (with patient ID, name code, and appropriate visit code) should be affixed to the upper right corner of pages 2-12. **Pre randomization:** The patient should meet with the Quality of Life Assessor, be trained in completion of the form, and then should complete the form. The Quality of Life Assessor should review the completed form for missing responses and resolve any problems before the patient leaves the clinic. Page 1 should then be completed by clinic staff and re-attached to pages 2-12. **Post randomization:** Pages 2-12 should be mailed to the patient 2 weeks prior to the scheduled NETT clinic visit with instructions to complete the form at home and to bring the completed form to the next NETT clinic visit. When the patient returns for the visit, the Quality of Life Assessor should review the form for completeness and obtain responses for missing items during the clinic visit. If the patient did not bring a completed form to the visit, the patient should complete the form at the visit. Page 1 should be completed by clinic staff and re-attached to pages 2-12. Use the date the form was completed for the visit date. If the patient did not write in a date, use the date of the clinic visit for the visit date. For items 13-69, checked responses should be keyed as "1", otherwise they should be left blank.

A. Clinic, visit, and patient identification

1. Clinic ID: _____ _____ _____ _____

2. Patient ID: _____ _____ _____ _____ _____

3. Patient name code:

   _____ _____ _____ _____ _____

4. Visit date *(date patient completed the form)*:

   _____ _____ - _____ _____ - _____
      day   mon   year

5. Visit code: _____ _____ _____

6. Form & revision: **q** **w** **2**

B. Administrative information

(To be completed by clinic staff after questionnaire is completed.)

7. Quality of Life Assessor
   a. PIN: _____ _____ _____
   b. Signature:

   _____

8. Clinic Coordinator
   a. PIN: _____ _____ _____
   b. Signature:

   _____

9. Date form reviewed:

   _____ _____ - _____ _____ - _____
      day   mon   year

QWB - Quality of Well-Being Scale V1.04

This survey asks about health problems that you have experienced in the last three days, not including today. Please make sure to answer all questions. Thank you for your patience and time in carefully completing this survey.

(Items 1-9 are reserved for clinic use.)

10. Today's date: ___ ___ / ___ ___ / ___ ___
mon   day   year

Part I - Acute and Chronic Symptoms

11. Please indicate whether you currently experience each of the following health symptoms or problems.

Do you have:

		Circle One	
		YES	**NO**
a.	Blindness or severely impaired vision in both eyes	1	2
b.	Blindness or severely impaired vision in only one eye	1	2
c.	Speech problems such as stuttering, or being unable to speak clearly	1	2
d.	Missing or paralyzed hands, feet, arms, or legs	1	2
e.	Missing or paralyzed fingers or toes	1	2
f.	Any <u>deformity</u> of the face, fingers, hand or arm, foot or leg, or back (e.g. severe scoliosis)	1	2
g.	General fatigue, tiredness, or weakness	1	2

Do you have:

Circle One

		YES	NO
h.	A problem with unwanted weight gain or weight loss	1	2
i.	A problem with being under or over weight	1	2
j.	Problems chewing your food adequately	1	2
k.	Any hearing loss or deafness	1	2
l.	Any noticeable skin problems, such as bad acne or large burns or scars on face, body, arms, or legs	1	2
m.	Eczema or burning/itching rash	1	2

12. Which of the following health aides do you use/have?

Circle One

		YES	NO
a.	Dentures	1	2
b.	Oxygen tank	1	2
c.	Prosthesis	1	2
d.	Eye glasses or contact lenses	1	2
e.	Hearing aide	1	2
f.	Magnifying glass	1	2
g.	Neck, back, or leg brace	1	2

For the following list of problems indicate which days (if any) over the past 3 days, not including today, you had the problem. If you have not had the symptom in the past 3 days, <u>do not leave the question blank</u>, please check "no days". If you have experienced the symptom in the past 3 days, please check which of the days you had it; if you experienced it on more than one of the days, check all days that apply.

For example, if you had a headache yesterday and the day before that:

Did you have:	No days	Yesterday	2 days ago	3 days ago
A headache?		✓	✓	

Over the past 3 days, did you have: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
13. Any problems with your vision not corrected with glasses or contact lenses (such as double vision, distorted vision, flashes, or floaters)?				
14. Any eye pain, irritation, discharge, or excessive sensitivity to light?				
15. A headache?				
16. Dizziness, earache, or ringing in your ears?				
17. Difficulty hearing, or discharge, or bleeding from an ear?				
18. Stuffy or runny nose, or bleeding from the nose?				
19. A sore throat, difficulty swallowing, or hoarse voice?				

Over the past 3 days, did you have: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
20. A tooth ache or jaw pain?				
21. Sore or bleeding lips, tongue, or gums?				
22. Coughing or wheezing?				
23. Shortness of breath or difficulty breathing?				
24. Chest pain, pressure, palpitations, fast or skipped heart beat, or other discomfort in the chest?				
25. An upset stomach, abdominal pain, nausea, heartburn, or vomiting?				
26. Difficulty with bowel movements, diarrhea, constipation, black tar-like stools, or any pain or discomfort in the rectal area?				
27. Pain, burning, or blood in urine?				
28. Loss of bladder control, frequent night-time urination, or difficulty with urination?				
29. Genital pain, itching, burning, or abnormal discharge, or pelvic cramping or abnormal bleeding? (Does not include normal menstruation)				

Over the past 3 days, did you have: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
30. A broken arm, wrist, foot, leg, or any other broken bone (other than in the back)?				
31. Pain, stiffness, cramps, weakness, or numbness in the neck or back?				
32. Pain, stiffness, cramps, weakness, or numbness in the hips or sides?				
33. Pain, stiffness, cramps, weakness, or numbness in any of the joints or muscles of the hand, feet, arms, or legs?				
34. Swelling of ankles, hands, feet or abdomen?				
35. Fever, chills, or sweats?				
36. Loss of consciousness, fainting, or seizures?				
37. Difficulty with your balance, standing, or walking?				

The following symptoms are about your feelings, thoughts, and behaviors.

Please check which days (if any) over the past 3, not including today, you have had:	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
38. Trouble falling asleep or staying asleep?				
39. Spells of feeling nervous or shaky?				
40. Spells of feeling upset, downhearted, or blue?				
41. Excessive worry or anxiety?				
42. Feelings that you had little or no control over events in your life?				
43. Feelings of being lonely or isolated?				
44. Feelings of frustration, irritation, or close to losing your temper?				
45. A hangover?				
46. Any decrease of sexual interest or performance?				
47. Confusion, difficulty understanding the written or spoken word, or significant memory loss?				
48. Thoughts or images you could not get out of your mind?				

Please check which days (if any) over the past 3, not including today, you have had:	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
49. To take any medication including over-the-counter remedies (aspirin/Tylenol, allergy medications, insulin, hormones, estrogen, thyroid, prednisone)?				
50. To stay on a medically prescribed diet for health reasons?				
51. A loss of appetite or over-eating?				

52. In the last 3 days did you have any symptoms, health complaints, or pains that have not been mentioned?   (circle one)   YES   NO
                                                                                1   2

                                                                                53. ⬅

If yes, what were the symptoms and on which days did you have them?

	b. Yesterday	c. 2 days ago	d. 3 days ago
a.			
b.			

Part II - Self Care

Over the last 3 days: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
53. Did you spend any part of the day or night as a patient in a hospital, nursing home, or rehabilitation center?				
54. Because of any impairment or health problem, did you need help with your personal care needs, such as eating, dressing, bathing, or getting around your home?				

Part III - Mobility

Over the last 3 days: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
55. Which days did you drive a motor vehicle?				
56. Which days did you use public transportation such as a bus, subway, Medi-van, train, or airplane?				

Over the last 3 days: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
57. Which days did you either not drive a motor vehicle or not use public transportation because of your health, or need help from another person to use?				

Part IV - Physical Activity

Over the last 3 days did you: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
58. Have trouble climbing stairs or inclines or walking off the curb?				
59. Avoid walking, have trouble walking, or walk more slowly than other people your age?				
60. Limp or use a cane, crutches, or walker?				
61. Avoid or have trouble bending over, stooping, or kneeling?				
62. Have any trouble lifting or carrying everyday objects such as books, a briefcase, or groceries?				
63. Have any other limitations in physical movements?				

Over the last 3 days did you: (please check all days that apply)	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
64. Spend all or most of the day in a bed, chair, or couch because of health reasons?				
65. Spend all or most of the day in a wheelchair?	Go to 67			
66. **If in a wheelchair**, on which days did someone else control its movement?				

Part V - Usual Activity

Over the last 3 days: (please check all days that apply):	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
67. Because of any physical or emotional health reasons, on which days did you avoid, need help with, or were limited in doing some of your usual activities, such as **work, school or housekeeping**?				

Over the last 3 days: (please check all days that apply):	a. No days	b. Yesterday	c. 2 days ago	d. 3 days ago
68. Because of any physical or emotional health reasons, on which days did you avoid or feel limited in doing some of your usual activities, such as **visiting family or friends, hobbies, shopping, recreational, or religious activities**?				
69. On which days did you have to change any of your plans or activities because of your health? (Consider only activities that you did not report in the last 2 questions.)	Go to 71			

70. If activities are limited, please describe:

_____

_____

71. Think about a scale of 0 to 100, with zero being the least desirable state of health that you could imagine and 100 being perfect health. What number, from 0 to 100 would you give to the state of your health, on average, over the last 3 days? (Please circle one)

0   10   20   30   40   50   60   70   80   90   100

Please bring this completed questionnaire with your to your scheduled NETT clinic visit.

```
RC    -     Form RC  CT Scan Report (rev 2)

Date file created:  13 May 2006
Observations:              3482
Variables:                   30

Variable                                              Variable
  Name       Variable Label                    Type   Length    Format

form       Form abreviation and revision number   Char      4
formdate   #4 cnvrtd to #days frm RZ/scr strt     Num       8
heterobl   1=heterog, 0=other, at BL              Num       8
newnett    New NETT patient ID no.                Char      5
rc209      9   Description of axial distribution of Char     1
rc210      10  Description craniocaudal distributio Char     1
rc207a     7a  Volumetric helical/spiral          Char      1
rc207b     7b  HRCT-suspended end expiration (FRC) Char      1
rc207c     7c  HRCT-suspended full inspiration (TLC Char     1
rc208al    8a  HRCT severity: upper left zone     Char      1
rc208ar    8a  HRCT severity: upper right zone    Char      1
rc208bl    8b  HRCT severity: middle left zone    Char      1
rc208br    8b  HRCT severity: middle right zone   Char      1
rc208cl    8c  HRCT severity: lower left zone     Char      1
rc208cr    8c  HRCT severity: lower right zone    Char      1
rc211a     11a Evidence of prior thoracic surgery Char      1
rc211b     11b Pulmonary nodules or masses        Char      1
rc211c     11c Interstitial lung disease          Char      1
rc211d     11d Bronchiectasis                     Char      1
rc211e     11e Active infection                   Char      1
rc211f     11f Giant bulla                        Char      1
rc211g     11g Lobar or segmental collapse        Char      1
rc211h     11h Mediastinal/hilar mass, enlarged lym Char     1
rc211i     11i Enlarged pulmonary arteries        Char      1
rc211j     11j Pleural thickening or effusion     Char      1
rc211k     11k Skeletal deformity                 Char      1
rc211l     11l Other ancillary observation        Char      1
rc211m     11m None                               Char      1
upplobbl   1=upper lobe predominant, 0=other, at BL Num      8
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ Char      3
```

Purpose: To record evaluations of CT scans.

When: Visits s1, f06, and f36.

Respondent: Radiologist and Clinic Coordinator.

Instructions: This form should be completed by the Radiologist and reviewed by the Clinic Coordinator.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date of CT scan):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: r c 2

B. Computed tomography

7. CT scans obtained:

   a. Volumetric helical/spiral:

      Yes (1)   No (2)

   b. HRCT-suspended end expiration (FRC):

      Yes (1)   No (2)

   c. HRCT-suspended full inspiration (TLC):

      Yes (1)   No (2)

                    11. ◄┘

C. Evaluation

8. Severity of HRCT

Instructions: Score emphysema severity from the **Inspiratory HRCT***; score each zone of each lung; only integer scores are allowed (0,1,2,3,4).*

Upper zone = lung apex to the top of the aortic arch

Mid zone = aortic arch to the right inferior pulmonary vein

Lower zone = right inferior pulmonary vein to the most caudal extent of the lungs

0 = Normal (none)

1 = Mild (1-25%)

2 = Moderate (26-50%)

3 = Marked (51-75%)

4 = Severe (> 75%)

	Right	Left
a. Upper zone:	___ (0-4)	___ (0-4)
b. Middle zone:	___ (0-4)	___ (0-4)
c. Lower zone:	___ (0-4)	___ (0-4)

9. Best description of the axial distribution of emphysema *(check one only):*

   Peripheral/subpleural predominantly across individual CT images   (1)

   Central/axial predominantly across individual CT images   (2)

   Evenly distributed (central and peripheral) across individual CT images   (3)

10. Best description of the craniocaudal
distribution of emphysema *(check only one):*

Upper lobe predominant	(1)
Lower lobe predominant	(2)
Diffuse	(3)
Superior segments of lower lobes predominantly involved	(4)

11. Ancillary observations (from HRCT
and 5-8 mm helical CT) *(check all that apply)*

a. Evidence of prior thoracic surgery: (1)

b. Pulmonary nodules or masses: (1)

c. Interstitial lung disease (such as
pulmonary fibrosis): (1)

d. Bronchiectasis: (1)

e. Active infection: (1)

f. Giant bulla (at least 1/3 of the volume
of the lung in which the bulla is
located): (*1)

g. Lobar or segmental collapse: (1)

h. Mediastinal/Hilar mass(es) or
enlarged lymph nodes: (1)

i. Enlarged pulmonary arteries: (1)

j. Pleural thickening or effusion: (1)

k. Skeletal deformity (scoliosis,
kyphosis, or compression fractures): (1)

l. Other *(specify):* (1)

_____
specify

m. None (1)

(*Presence of a giant bulla is exclusionary.)

D. Administrative information

12. Location of stored CT scans:

_____
specify location

13. Radiologist PIN: ___ ___ ___

14. Radiologist signature:

_____

15. Clinic Coordinator PIN: ___ ___ ___

16. Clinic Coordinator signature:

_____

17. Date form reviewed:

___ - ___ - ___
day   mon   year

```
RCORE    -    IAC right lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                        Variable
  Name      Variable Label                         Type        Length      Format

ae50        No. of voxels above -50 HU in a region   Num           8
ae100       No. of voxels above -100 HU in a region  Num           8
ae150       No. of voxels above -150 HU in a region  Num           8
ae200       No. of voxels above -200 HU in a region  Num           8
ae250       No. of voxels above -250 HU in a region  Num           8
aint        Ankle intercept                          Num           8
airv        Volume of region that is air (ml)        Num           8
ankl        Ankle                                    Num           8
aslp        Ankle slope                              Num           8
be600       No. of voxels below -600 HU in a region  Num           8
be620       No. of voxels below -620 HU in a region  Num           8
be640       No. of voxels below -640 HU in a region  Num           8
be660       No. of voxels below -660 HU in a region  Num           8
be810       No. of voxels below -810 HU in a region  Num           8
be830       No. of voxels below -830 HU in a region  Num           8
be850       No. of voxels below -850 HU in a region  Num           8
be870       No. of voxels below -870 HU in a region  Num           8
be890       No. of voxels below -890 HU in a region  Num           8
be900       No. of voxels below -900 HU in a region  Num           8
be910       No. of voxels below -910 HU in a region  Num           8
be920       No. of voxels below -920 HU in a region  Num           8
be930       No. of voxels below -930 HU in a region  Num           8
be940       No. of voxels below -940 HU in a region  Num           8
be950       No. of voxels below -950 HU in a region  Num           8
be960       No. of voxels below -960 HU in a region  Num           8
ccutoff     See IAC Scan Analysis variables listing  Num           8
cvm         See IAC Scan Analysis variables listing  Num           8
cvsd        See IAC Scan Analysis variables listing  Num           8
cvxm        See IAC Scan Analysis variables listing  Num           8
cvxsd       See IAC Scan Analysis variables listing  Num           8
cvym        See IAC Scan Analysis variables listing  Num           8
cvysd       See IAC Scan Analysis variables listing  Num           8
cvzm        See IAC Scan Analysis variables listing  Num           8
cvzsd       See IAC Scan Analysis variables listing  Num           8
entityve    Histogram pgm version number             Char         18
fwhm        See IAC Scan Analysis variables listing  Num           8
historig                                             Num           8
hrcreate    hrcreate cnvrtd to #days frm RZ/scr strt Num           8
hu10        HU value below which 10% of voxels fall  Num           8
hu15        HU value below which 15% of voxels fall  Num           8
hu20        HU value below which 20% of voxels fall  Num           8
intercep    Value used to convert voxels into HU     Num           8
kint        Knee intercept                           Num           8
knee        See IAC Scan Analysis variables listing  Num           8
kslp        See IAC Scan Analysis variables listing  Num           8
kurt        Kurtosis                                 Num           8
lae50       No. of voxels above -50 HU in a region   Num           8
lae100      No. of voxels above -100 HU in a region  Num           8
lae150      No. of voxels above -150 HU in a region  Num           8
lae200      No. of voxels above -200 HU in a region  Num           8
lae250      No. of voxels above -250 HU in a region  Num           8
laint       Ankle intercept                          Num           8
lairv       Volume of region that is air (ml)        Num           8
lankl       Ankle                                    Num           8
laslp       Ankle slope                              Num           8
lbe600      No. of voxels below -600 HU in a region  Num           8
lbe620      No. of voxels below -620 HU in a region  Num           8
lbe640      No. of voxels below -640 HU in a region  Num           8
```

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RCORE    -    IAC right lung core file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                                   Variable
  Name      Variable Label                        Type     Length     Format

lbe660      No. of voxels below -660 HU in a region    Num         8
lbe810      No. of voxels below -810 HU in a region    Num         8
lbe830      No. of voxels below -830 HU in a region    Num         8
lbe850      No. of voxels below -850 HU in a region    Num         8
lbe870      No. of voxels below -870 HU in a region    Num         8
lbe890      No. of voxels below -890 HU in a region    Num         8
lbe900      No. of voxels below -900 HU in a region    Num         8
lbe910      No. of voxels below -910 HU in a region    Num         8
lbe920      No. of voxels below -920 HU in a region    Num         8
lbe930      No. of voxels below -930 HU in a region    Num         8
lbe940      No. of voxels below -940 HU in a region    Num         8
lbe950      No. of voxels below -950 HU in a region    Num         8
lbe960      No. of voxels below -960 HU in a region    Num         8
lcvm        See IAC Scan Analysis variables listing    Num         8
lcvsd       See IAC Scan Analysis variables listing    Num         8
lcvxm       See IAC Scan Analysis variables listing    Num         8
lcvxsd      See IAC Scan Analysis variables listing    Num         8
lcvym       See IAC Scan Analysis variables listing    Num         8
lcvysd      See IAC Scan Analysis variables listing    Num         8
lcvzm       See IAC Scan Analysis variables listing    Num         8
lcvzsd      See IAC Scan Analysis variables listing    Num         8
lfwhm       See IAC Scan Analysis variables listing    Num         8
lhu10       HU value below which 10% of voxels fall     Num         8
lhu15       HU value below which 15% of voxels fall     Num         8
lhu20       HU value below which 20% of voxels fall     Num         8
lkint       Knee intercept                              Num         8
lknee       See IAC Scan Analysis variables listing     Num         8
lkslp       See IAC Scan Analysis variables listing     Num         8
lkurt       Kurtosis                                    Num         8
lmean       Mean                                        Num         8
lmed        Median                                      Num         8
lsd         Standard deviation                          Num         8
lskew       Skewness                                    Num         8
ltisv       Region vol that is tissue & blood(ml)       Num         8
ltotv       Total volume of region (cubic ml)           Num         8
ltotvx      Total number of voxels in a region          Num         8
lvar        Variance                                    Num         8
mae50       No. of voxels above -50 HU in a region      Num         8
mae100      No. of voxels above -100 HU in a region     Num         8
mae150      No. of voxels above -150 HU in a region     Num         8
mae200      No. of voxels above -200 HU in a region     Num         8
mae250      No. of voxels above -250 HU in a region     Num         8
maint       Ankle intercept                             Num         8
mairv       Volume of region that is air (ml)           Num         8
mankl       Ankle                                       Num         8
maslp       Ankle slope                                 Num         8
mbe600      No. of voxels below -600 HU in a region     Num         8
mbe620      No. of voxels below -620 HU in a region     Num         8
mbe640      No. of voxels below -640 HU in a region     Num         8
mbe660      No. of voxels below -660 HU in a region     Num         8
mbe810      No. of voxels below -810 HU in a region     Num         8
mbe830      No. of voxels below -830 HU in a region     Num         8
mbe850      No. of voxels below -850 HU in a region     Num         8
mbe870      No. of voxels below -870 HU in a region     Num         8
mbe890      No. of voxels below -890 HU in a region     Num         8
mbe900      No. of voxels below -900 HU in a region     Num         8
mbe910      No. of voxels below -910 HU in a region     Num         8
mbe920      No. of voxels below -920 HU in a region     Num         8
```

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RCORE    -    IAC right lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                    Variable
  Name        Variable Label                      Type      Length      Format

mbe930      No. of voxels below -930 HU in a region    Num        8
mbe940      No. of voxels below -940 HU in a region    Num        8
mbe950      No. of voxels below -950 HU in a region    Num        8
mbe960      No. of voxels below -960 HU in a region    Num        8
mcvm        See IAC Scan Analysis variables listing    Num        8
mcvsd       See IAC Scan Analysis variables listing    Num        8
mcvxm       See IAC Scan Analysis variables listing    Num        8
mcvxsd      See IAC Scan Analysis variables listing    Num        8
mcvym       See IAC Scan Analysis variables listing    Num        8
mcvysd      See IAC Scan Analysis variables listing    Num        8
mcvzm       See IAC Scan Analysis variables listing    Num        8
mcvzsd      See IAC Scan Analysis variables listing    Num        8
mean        Mean                                       Num        8
med         Median                                     Num        8
mfwhm       See IAC Scan Analysis variables listing    Num        8
mhu10       HU value below which 10% of voxels fall     Num        8
mhu15       HU value below which 15% of voxels fall     Num        8
mhu20       HU value below which 20% of voxels fall     Num        8
mkint       Knee intercept                             Num        8
mknee       See IAC Scan Analysis variables listing    Num        8
mkslp       See IAC Scan Analysis variables listing    Num        8
mkurt       Kurtosis                                   Num        8
mmean       Mean                                       Num        8
mmed        Median                                     Num        8
msd         Standard deviation                         Num        8
mskew       Skewness                                   Num        8
mtisv       Region vol that is tissue & blood(ml)      Num        8
mtotv       Total volume of region (cubic ml)          Num        8
mtotvx      Total number of voxels in a region         Num        8
mvar        Variance                                   Num        8
newnett     New NETT patient ID no.                    Char       5
passver                                                Char      13
scandate    scandate cnvrtd to #days frm RZ/scr strt   Num        8
sd          Standard deviation                         Num        8
skew        Skewness                                   Num        8
slicethi    Slice thickness                            Char      14
tisv        Region vol that is tissue & blood(ml)      Num        8
totv        Total volume of region (cubic ml)          Num        8
totvx       Total number of voxels in a region         Num        8
uae50       No. of voxels above -50 HU in a region     Num        8
uae100      No. of voxels above -100 HU in a region    Num        8
uae150      No. of voxels above -150 HU in a region    Num        8
uae200      No. of voxels above -200 HU in a region    Num        8
uae250      No. of voxels above -250 HU in a region    Num        8
uaint       Ankle intercept                            Num        8
uairv       Volume of region that is air (ml)          Num        8
uankl       Ankle                                      Num        8
uaslp       Ankle slope                                Num        8
ube600      No. of voxels below -600 HU in a region    Num        8
ube620      No. of voxels below -620 HU in a region    Num        8
ube640      No. of voxels below -640 HU in a region    Num        8
ube660      No. of voxels below -660 HU in a region    Num        8
ube810      No. of voxels below -810 HU in a region    Num        8
ube830      No. of voxels below -830 HU in a region    Num        8
ube850      No. of voxels below -850 HU in a region    Num        8
ube870      No. of voxels below -870 HU in a region    Num        8
ube890      No. of voxels below -890 HU in a region    Num        8
ube900      No. of voxels below -900 HU in a region    Num        8
```

```
RCORE    -    IAC right lung core file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                              Variable
  Name      Variable Label                    Type    Length    Format

ube910    No. of voxels below -910 HU in a region   Num       8
ube920    No. of voxels below -920 HU in a region   Num       8
ube930    No. of voxels below -930 HU in a region   Num       8
ube940    No. of voxels below -940 HU in a region   Num       8
ube950    No. of voxels below -950 HU in a region   Num       8
ube960    No. of voxels below -960 HU in a region   Num       8
ucvm      See IAC Scan Analysis variables listing   Num       8
ucvsd     See IAC Scan Analysis variables listing   Num       8
ucvxm     See IAC Scan Analysis variables listing   Num       8
ucvxsd    See IAC Scan Analysis variables listing   Num       8
ucvym     See IAC Scan Analysis variables listing   Num       8
ucvysd    See IAC Scan Analysis variables listing   Num       8
ucvzm     See IAC Scan Analysis variables listing   Num       8
ucvzsd    See IAC Scan Analysis variables listing   Num       8
ufwhm     See IAC Scan Analysis variables listing   Num       8
uhu10     HU value below which 10% of voxels fall    Num       8
uhu15     HU value below which 15% of voxels fall    Num       8
uhu20     HU value below which 20% of voxels fall    Num       8
ukint     Knee intercept                             Num       8
uknee     See IAC Scan Analysis variables listing    Num       8
ukslp     See IAC Scan Analysis variables listing    Num       8
ukurt     Kurtosis                                   Num       8
umean     Mean                                       Num       8
umed      Median                                     Num       8
usd       Standard deviation                         Num       8
uskew     Skewness                                   Num       8
utisv     Region vol that is tissue & blood(ml)      Num       8
utotv     Total volume of region (cubic ml)          Num       8
utotvx    Total number of voxels in a region         Num       8
uvar      Variance                                   Num       8
var       Variance                                   Num       8
visit     Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ   Char      3
vxsize    Voxel size                                 Num       8
```

```
RESID    -    Residence over time

Date file created:  07 May 2006
Observations:            19778
Variables:                   3

Variable                                          Variable
  Name     Variable Label                 Type    Length     Format

newnett    New NETT patient ID no.        Char       5
resid      1=home,2=nursng/rehab,3=acute care  Num       8
visit      Visit code fxx where xx=mos since RZ  Char       3
```

```
RHOLE    -    IAC right lung holes file

Date file created:  13 May 2006
Observations:            2236
Variables:                 82

Variable                                                Variable
  Name       Variable Label                      Type   Length    Format

alpha_1     At -950, see IAC Scan Analysis vbl list    Num       8
alpha_2     At -930, see IAC Scan Analysis vbl list    Num       8
alpha_3     At -910, see IAC Scan Analysis vbl list    Num       8
alpha_4     At -890, see IAC Scan Analysis vbl list    Num       8
alpha_5     At -870, see IAC Scan Analysis vbl list    Num       8
alpha_6     At -850, see IAC Scan Analysis vbl list    Num       8
c1_1        Y intercept at -950                        Num       8
c1_2        Y intercept at -930                        Num       8
c1_3        Y intercept at -910                        Num       8
c1_4        Y intercept at -890                        Num       8
c1_5        Y intercept at -870                        Num       8
c1_6        Y intercept at -850                        Num       8
cutoff_1    At -950, see IAC Scan Analysis vbl list    Num       8
cutoff_2    At -930, see IAC Scan Analysis vbl list    Num       8
cutoff_3    At -910, see IAC Scan Analysis vbl list    Num       8
cutoff_4    At -890, see IAC Scan Analysis vbl list    Num       8
cutoff_5    At -870, see IAC Scan Analysis vbl list    Num       8
cutoff_6    At -850, see IAC Scan Analysis vbl list    Num       8
entityve    Hole pgm version number                    Char      18
hwcreate    hwcreate cnvrtd to #days frm RZ/scr strt   Num       8
intercep    Value used to convert voxels into HU       Num       8
lalpha_1    At -950, see IAC Scan Analysis vbl list    Num       8
lalpha_2    At -930, see IAC Scan Analysis vbl list    Num       8
lalpha_3    At -910, see IAC Scan Analysis vbl list    Num       8
lalpha_4    At -890, see IAC Scan Analysis vbl list    Num       8
lalpha_5    At -870, see IAC Scan Analysis vbl list    Num       8
lalpha_6    At -850, see IAC Scan Analysis vbl list    Num       8
lc1_1       Y intercept at -950                        Num       8
lc1_2       Y intercept at -930                        Num       8
lc1_3       Y intercept at -910                        Num       8
lc1_4       Y intercept at -890                        Num       8
lc1_5       Y intercept at -870                        Num       8
lc1_6       Y intercept at -850                        Num       8
lcutoff1    At -950, see IAC Scan Analysis vbl list    Num       8
lcutoff2    At -930, see IAC Scan Analysis vbl list    Num       8
lcutoff3    At -910, see IAC Scan Analysis vbl list    Num       8
lcutoff4    At -890, see IAC Scan Analysis vbl list    Num       8
lcutoff5    At -870, see IAC Scan Analysis vbl list    Num       8
lcutoff_    At -850, see IAC Scan Analysis vbl list    Num       8
malpha_1    At -950, see IAC Scan Analysis vbl list    Num       8
malpha_2    At -930, see IAC Scan Analysis vbl list    Num       8
malpha_3    At -910, see IAC Scan Analysis vbl list    Num       8
malpha_4    At -890, see IAC Scan Analysis vbl list    Num       8
malpha_5    At -870, see IAC Scan Analysis vbl list    Num       8
malpha_6    At -850, see IAC Scan Analysis vbl list    Num       8
mc1_1       Y intercept at -950                        Num       8
mc1_2       Y intercept at -930                        Num       8
mc1_3       Y intercept at -910                        Num       8
mc1_4       Y intercept at -890                        Num       8
mc1_5       Y intercept at -870                        Num       8
mc1_6       Y intercept at -850                        Num       8
mcutoff1    At -950, see IAC Scan Analysis vbl list    Num       8
mcutoff2    At -930, see IAC Scan Analysis vbl list    Num       8
mcutoff3    At -910, see IAC Scan Analysis vbl list    Num       8
mcutoff4    At -890, see IAC Scan Analysis vbl list    Num       8
mcutoff5    At -870, see IAC Scan Analysis vbl list    Num       8
mcutoff_    At -850, see IAC Scan Analysis vbl list    Num       8
newnett     New NETT patient ID no.                    Char      5
```

```
RHOLE    -    IAC right lung holes file

Date file created:  13 May 2006
Observations:            2236
Variables:                 82

Variable                                            Variable
  Name      Variable Label                    Type   Length    Format

passver                                       Char     13
rigthwho                                      Num       8
scandate    scandate cnvrtd to #days frm RZ/scr strt  Num   8
slicethi    Slice thickness                   Char     14
ualpha_1    At -950, see IAC Scan Analysis vbl list   Num   8
ualpha_2    At -930, see IAC Scan Analysis vbl list   Num   8
ualpha_3    At -910, see IAC Scan Analysis vbl list   Num   8
ualpha_4    At -890, see IAC Scan Analysis vbl list   Num   8
ualpha_5    At -870, see IAC Scan Analysis vbl list   Num   8
ualpha_6    At -850, see IAC Scan Analysis vbl list   Num   8
uc1_1       Y intercept at -950               Num       8
uc1_2       Y intercept at -930               Num       8
uc1_3       Y intercept at -910               Num       8
uc1_4       Y intercept at -890               Num       8
uc1_5       Y intercept at -870               Num       8
uc1_6       Y intercept at -850               Num       8
ucutoff1    At -950, see IAC Scan Analysis vbl list   Num   8
ucutoff2    At -930, see IAC Scan Analysis vbl list   Num   8
ucutoff3    At -910, see IAC Scan Analysis vbl list   Num   8
ucutoff4    At -890, see IAC Scan Analysis vbl list   Num   8
ucutoff5    At -870, see IAC Scan Analysis vbl list   Num   8
ucutoff_    At -850, see IAC Scan Analysis vbl list   Num   8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ  Char  3
vxsize      Voxel size                        Num       8
```

```
RP    -    Form RP  Perfusion Scan (rev 2)

Date file created:  13 May 2006
Observations:              1614
Variables:                   17

Variable                                              Variable
  Name        Variable Label                    Type   Length    Format

form        Form abreviation and revision number   Char      4
formdate    #4 cnvrtd to #days frm RZ/scr strt     Num       8
newnett     New NETT patient ID no.                Char      5
prat        perfusion ratio:(Ur+Ul)/(Mr+Ml+Lr+Ll)  Num       8
rp207al     7a % perfusion: upper Lt               Char      3
rp207ar     7a % perfusion: upper Rt               Char      3
rp207bl     7b % perfusion: middle Lt              Char      3
rp207br     7b % perfusion: middle Rt              Char      3
rp207cl     7c % perfusion: lower Lt               Char      3
rp207cr     7c % perfusion: lower Rt               Char      3
rp208al     8a Perfusion homogenity score: upper Lt   Char      1
rp208ar     8a Perfusion homogenity score: upper Rt   Char      1
rp208bl     8b Perfusion homogenity score: middle Lt  Char      1
rp208br     8b Perfusion homogenity score: middle Rt  Char      1
rp208cl     8c Perfusion homogenity score: lower Lt    Char      1
rp208cr     8c Perfusion homogenity score: lower Rt    Char      1
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char      3
```

Purpose: To record evaluation of perfusion scans.

When: Visit rz.

Respondent: Nuclear medicine physician and Clinic Coordinator.

Instructions: This form should be completed by the nuclear medicine physician and reviewed by the Clinic Coordinator. Transcribe values for percent of perfusion from the perfusion scan report. Mark the report with the patient's ID number and name code and staple it to the back of this form.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date of perfusion scan):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: r z ___

6. Form & revision: r p 2

B. Perfusion scan evaluation

7. Percent of perfusion in each lung zone:

	Right	Left
a. Upper:	___ ___ ___ %	___ ___ ___ %
b. Middle:	___ ___ ___ %	___ ___ ___ %
c. Lower:	___ ___ ___ %	___ ___ ___ %

8. Qualitative analysis of perfusion homogeneity in each zone:

A = homogenous perfusion

B = mildly heterogenous perfusion

C = moderate to severe heterogeneity of perfusion

	Right	Left
a. Upper zone:	___ (A-C)	___ (A-C)
b. Middle zone:	___ (A-C)	___ (A-C)
c. Lower zone:	___ (A-C)	___ (A-C)

G. Administrative information

9. Location of perfusion scan:

_____
specify location

10. Name of nuclear medicine physician *(please print):*

_____

11. Clinic Coordinator PIN: ___ ___ ___

12. Clinic Coordinator signature:

_____

13. Date of review:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
RPEEL   -   IAC right lung peel file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                            Variable
  Name      Variable Label                 Type     Length      Format

ae50      No. of voxels above -50 HU in a region    Num         8
ae100     No. of voxels above -100 HU in a region   Num         8
ae150     No. of voxels above -150 HU in a region   Num         8
ae200     No. of voxels above -200 HU in a region   Num         8
ae250     No. of voxels above -250 HU in a region   Num         8
aint      Ankle intercept                           Num         8
airv      Volume of region that is air (ml)         Num         8
ankl      Ankle                                     Num         8
aslp      Ankle slope                               Num         8
be600     No. of voxels below -600 HU in a region   Num         8
be620     No. of voxels below -620 HU in a region   Num         8
be640     No. of voxels below -640 HU in a region   Num         8
be660     No. of voxels below -660 HU in a region   Num         8
be810     No. of voxels below -810 HU in a region   Num         8
be830     No. of voxels below -830 HU in a region   Num         8
be850     No. of voxels below -850 HU in a region   Num         8
be870     No. of voxels below -870 HU in a region   Num         8
be890     No. of voxels below -890 HU in a region   Num         8
be900     No. of voxels below -900 HU in a region   Num         8
be910     No. of voxels below -910 HU in a region   Num         8
be920     No. of voxels below -920 HU in a region   Num         8
be930     No. of voxels below -930 HU in a region   Num         8
be940     No. of voxels below -940 HU in a region   Num         8
be950     No. of voxels below -950 HU in a region   Num         8
be960     No. of voxels below -960 HU in a region   Num         8
ccutoff   See IAC Scan Analysis variables listing   Num         8
cvm       See IAC Scan Analysis variables listing   Num         8
cvsd      See IAC Scan Analysis variables listing   Num         8
cvxm      See IAC Scan Analysis variables listing   Num         8
cvxsd     See IAC Scan Analysis variables listing   Num         8
cvym      See IAC Scan Analysis variables listing   Num         8
cvysd     See IAC Scan Analysis variables listing   Num         8
cvzm      See IAC Scan Analysis variables listing   Num         8
cvzsd     See IAC Scan Analysis variables listing   Num         8
entityve  Histogram pgm version number              Char        18
fwhm      See IAC Scan Analysis variables listing   Num         8
historig                                            Num         8
hrcreate  hrcreate cnvrtd to #days frm RZ/scr strt  Num         8
hu10      HU value below which 10% of voxels fall    Num         8
hu15      HU value below which 15% of voxels fall    Num         8
hu20      HU value below which 20% of voxels fall    Num         8
intercep  Value used to convert voxels into HU      Num         8
kint      Knee intercept                            Num         8
knee      See IAC Scan Analysis variables listing   Num         8
kslp      See IAC Scan Analysis variables listing   Num         8
kurt      Kurtosis                                  Num         8
lae50     No. of voxels above -50 HU in a region    Num         8
lae100    No. of voxels above -100 HU in a region   Num         8
lae150    No. of voxels above -150 HU in a region   Num         8
lae200    No. of voxels above -200 HU in a region   Num         8
lae250    No. of voxels above -250 HU in a region   Num         8
laint     Ankle intercept                           Num         8
lairv     Volume of region that is air (ml)         Num         8
lankl     Ankle                                     Num         8
laslp     Ankle slope                               Num         8
lbe600    No. of voxels below -600 HU in a region   Num         8
lbe620    No. of voxels below -620 HU in a region   Num         8
lbe640    No. of voxels below -640 HU in a region   Num         8
```

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RPEEL    -    IAC right lung peel file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                    Variable
  Name        Variable Label                    Type        Length      Format

lbe660      No. of voxels below -660 HU in a region    Num         8
lbe810      No. of voxels below -810 HU in a region    Num         8
lbe830      No. of voxels below -830 HU in a region    Num         8
lbe850      No. of voxels below -850 HU in a region    Num         8
lbe870      No. of voxels below -870 HU in a region    Num         8
lbe890      No. of voxels below -890 HU in a region    Num         8
lbe900      No. of voxels below -900 HU in a region    Num         8
lbe910      No. of voxels below -910 HU in a region    Num         8
lbe920      No. of voxels below -920 HU in a region    Num         8
lbe930      No. of voxels below -930 HU in a region    Num         8
lbe940      No. of voxels below -940 HU in a region    Num         8
lbe950      No. of voxels below -950 HU in a region    Num         8
lbe960      No. of voxels below -960 HU in a region    Num         8
lcvm        See IAC Scan Analysis variables listing    Num         8
lcvsd       See IAC Scan Analysis variables listing    Num         8
lcvxm       See IAC Scan Analysis variables listing    Num         8
lcvxsd      See IAC Scan Analysis variables listing    Num         8
lcvym       See IAC Scan Analysis variables listing    Num         8
lcvysd      See IAC Scan Analysis variables listing    Num         8
lcvzm       See IAC Scan Analysis variables listing    Num         8
lcvzsd      See IAC Scan Analysis variables listing    Num         8
lfwhm       See IAC Scan Analysis variables listing    Num         8
lhu10       HU value below which 10% of voxels fall     Num         8
lhu15       HU value below which 15% of voxels fall     Num         8
lhu20       HU value below which 20% of voxels fall     Num         8
lkint       Knee intercept                             Num         8
lknee       See IAC Scan Analysis variables listing    Num         8
lkslp       See IAC Scan Analysis variables listing    Num         8
lkurt       Kurtosis                                   Num         8
lmean       Mean                                       Num         8
lmed        Median                                     Num         8
lsd         Standard deviation                         Num         8
lskew       Skewness                                   Num         8
ltisv       Region vol that is tissue & blood(ml)      Num         8
ltotv       Total volume of region (cubic ml)          Num         8
ltotvx      Total number of voxels in a region         Num         8
lvar        Variance                                   Num         8
mae50       No. of voxels above -50 HU in a region     Num         8
mae100      No. of voxels above -100 HU in a region    Num         8
mae150      No. of voxels above -150 HU in a region    Num         8
mae200      No. of voxels above -200 HU in a region    Num         8
mae250      No. of voxels above -250 HU in a region    Num         8
maint       Ankle intercept                            Num         8
mairv       Volume of region that is air (ml)          Num         8
mankl       Ankle                                      Num         8
maslp       Ankle slope                                Num         8
mbe600      No. of voxels below -600 HU in a region    Num         8
mbe620      No. of voxels below -620 HU in a region    Num         8
mbe640      No. of voxels below -640 HU in a region    Num         8
mbe660      No. of voxels below -660 HU in a region    Num         8
mbe810      No. of voxels below -810 HU in a region    Num         8
mbe830      No. of voxels below -830 HU in a region    Num         8
mbe850      No. of voxels below -850 HU in a region    Num         8
mbe870      No. of voxels below -870 HU in a region    Num         8
mbe890      No. of voxels below -890 HU in a region    Num         8
mbe900      No. of voxels below -900 HU in a region    Num         8
mbe910      No. of voxels below -910 HU in a region    Num         8
mbe920      No. of voxels below -920 HU in a region    Num         8
```

```
RPEEL    -    IAC right lung peel file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                    Variable
  Name        Variable Label                     Type     Length    Format

mbe930      No. of voxels below -930 HU in a region      Num         8
mbe940      No. of voxels below -940 HU in a region      Num         8
mbe950      No. of voxels below -950 HU in a region      Num         8
mbe960      No. of voxels below -960 HU in a region      Num         8
mcvm        See IAC Scan Analysis variables listing      Num         8
mcvsd       See IAC Scan Analysis variables listing      Num         8
mcvxm       See IAC Scan Analysis variables listing      Num         8
mcvxsd      See IAC Scan Analysis variables listing      Num         8
mcvym       See IAC Scan Analysis variables listing      Num         8
mcvysd      See IAC Scan Analysis variables listing      Num         8
mcvzm       See IAC Scan Analysis variables listing      Num         8
mcvzsd      See IAC Scan Analysis variables listing      Num         8
mean        Mean                                         Num         8
med         Median                                       Num         8
mfwhm       See IAC Scan Analysis variables listing      Num         8
mhu10       HU value below which 10% of voxels fall      Num         8
mhu15       HU value below which 15% of voxels fall      Num         8
mhu20       HU value below which 20% of voxels fall      Num         8
mkint       Knee intercept                               Num         8
mknee       See IAC Scan Analysis variables listing      Num         8
mkslp       See IAC Scan Analysis variables listing      Num         8
mkurt       Kurtosis                                     Num         8
mmean       Mean                                         Num         8
mmed        Median                                       Num         8
msd         Standard deviation                           Num         8
mskew       Skewness                                     Num         8
mtisv       Region vol that is tissue & blood(ml)        Num         8
mtotv       Total volume of region (cubic ml)            Num         8
mtotvx      Total number of voxels in a region           Num         8
mvar        Variance                                     Num         8
newnett     New NETT patient ID no.                      Char        5
passver                                                  Char        13
scandate    scandate cnvrtd to #days frm RZ/scr strt     Num         8
sd          Standard deviation                           Num         8
skew        Skewness                                     Num         8
slicethi    Slice thickness                              Char        14
tisv        Region vol that is tissue & blood(ml)        Num         8
totv        Total volume of region (cubic ml)            Num         8
totvx       Total number of voxels in a region           Num         8
uae50       No. of voxels above -50 HU in a region       Num         8
uae100      No. of voxels above -100 HU in a region      Num         8
uae150      No. of voxels above -150 HU in a region      Num         8
uae200      No. of voxels above -200 HU in a region      Num         8
uae250      No. of voxels above -250 HU in a region      Num         8
uaint       Ankle intercept                              Num         8
uairv       Volume of region that is air (ml)            Num         8
uankl       Ankle                                        Num         8
uaslp       Ankle slope                                  Num         8
ube600      No. of voxels below -600 HU in a region      Num         8
ube620      No. of voxels below -620 HU in a region      Num         8
ube640      No. of voxels below -640 HU in a region      Num         8
ube660      No. of voxels below -660 HU in a region      Num         8
ube810      No. of voxels below -810 HU in a region      Num         8
ube830      No. of voxels below -830 HU in a region      Num         8
ube850      No. of voxels below -850 HU in a region      Num         8
ube870      No. of voxels below -870 HU in a region      Num         8
ube890      No. of voxels below -890 HU in a region      Num         8
ube900      No. of voxels below -900 HU in a region      Num         8
```

```
RPEEL   -   IAC right lung peel file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                            Variable
  Name      Variable Label                Type      Length    Format

ube910    No. of voxels below -910 HU in a region   Num        8
ube920    No. of voxels below -920 HU in a region   Num        8
ube930    No. of voxels below -930 HU in a region   Num        8
ube940    No. of voxels below -940 HU in a region   Num        8
ube950    No. of voxels below -950 HU in a region   Num        8
ube960    No. of voxels below -960 HU in a region   Num        8
ucvm      See IAC Scan Analysis variables listing   Num        8
ucvsd     See IAC Scan Analysis variables listing   Num        8
ucvxm     See IAC Scan Analysis variables listing   Num        8
ucvxsd    See IAC Scan Analysis variables listing   Num        8
ucvym     See IAC Scan Analysis variables listing   Num        8
ucvysd    See IAC Scan Analysis variables listing   Num        8
ucvzm     See IAC Scan Analysis variables listing   Num        8
ucvzsd    See IAC Scan Analysis variables listing   Num        8
ufwhm     See IAC Scan Analysis variables listing   Num        8
uhu10     HU value below which 10% of voxels fall    Num        8
uhu15     HU value below which 15% of voxels fall    Num        8
uhu20     HU value below which 20% of voxels fall    Num        8
ukint     Knee intercept                             Num        8
uknee     See IAC Scan Analysis variables listing    Num        8
ukslp     See IAC Scan Analysis variables listing    Num        8
ukurt     Kurtosis                                   Num        8
umean     Mean                                       Num        8
umed      Median                                     Num        8
usd       Standard deviation                         Num        8
uskew     Skewness                                   Num        8
utisv     Region vol that is tissue & blood(ml)      Num        8
utotv     Total volume of region (cubic ml)          Num        8
utotvx    Total number of voxels in a region         Num        8
uvar      Variance                                   Num        8
var       Variance                                   Num        8
visit     Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ   Char       3
vxsize    Voxel size                                 Num        8
```

```
RR    -    Form RR  Chest Radiograph Summary (rev 2)

Date file created:  13 May 2006
Observations:              3401
Variables:                   17

Variable                                              Variable
  Name      Variable Label                    Type    Length    Format

form       Form abreviation and revision number  Char     4
formdate   #4 cnvrtd to #days frm RZ/scr strt    Num      8
newnett    New NETT patient ID no.               Char     5
rr207      7   Hyperinflation score              Char     1
rr208a     8a  Evidence of prior thoracic surgery  Char   1
rr208b     8b  Pumonary nodules or masses        Char     1
rr208c     8c  Pumonary fibrosis                 Char     1
rr208d     8d  Bronchiectasis                    Char     1
rr208e     8e  Active infection                  Char     1
rr208f     8f  Unsuspected malignancy            Char     1
rr208g     8g  Mediastinal masses or other abnormal  Char  1
rr208h     8h  Enlarged pulmonary arteries       Char     1
rr208i     8i  Pleural thickening or effusion    Char     1
rr208j     8j  Skeletal deformity                Char     1
rr208k     8k  Other observation                 Char     1
rr208l     8l  None                              Char     1
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char    3
```

Purpose: To record evaluations of chest radiographs.

When: Visits s1, f06, and f36.

Respondent: Radiologist and Clinic Coordinator.

Instructions: This form should be completed by the radiologist and reviewed by the Clinic Coordinator.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date of chest radiographs):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: r   r   2

B. Chest radiograph evaluation

7. Hyperinflation score *(from lateral chest radiograph; check only one):*

Normal	($_0$)
Minimal curve	($_1$)
Flat	($_2$)
Inverted	($_3$)

8. Ancillary observations *(check all that apply):*

a. Evidence of prior thoracic surgery   ($_1$)

b. Pulmonary nodules or masses   ($_1$)

c. Pulmonary fibrosis   ($_1$)

d. Bronchiectasis   ($_1$)

e. Active infection   ($_1$)

f. Unsuspected malignancy   ($_1$)

g. Mediastinal masses or other abnormalities   ($_1$)

h. Enlarged pulmonary arteries   ($_1$)

i. Pleural thickening or effusion   ($_1$)

j. Skeletal deformity   ($_1$)

k. Other *(specify):*   ($_1$)

_____
specify

l. None   ($_1$)

G. Administrative information

9. Radiologist PIN: ___ ___ ___

10. Radiologist signature:

_____

11. Clinic Coordinator PIN: ___ ___ ___

12. Clinic Coordinator signature:

_____

13. Date of review:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
RVER2    -    IAC right lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                              Variable
  Name       Variable Label                  Type    Length     Format

ae50         No. of voxels above -50 HU in a region    Num        8
ae100        No. of voxels above -100 HU in a region   Num        8
ae150        No. of voxels above -150 HU in a region   Num        8
ae200        No. of voxels above -200 HU in a region   Num        8
ae250        No. of voxels above -250 HU in a region   Num        8
aint         Ankle intercept                           Num        8
airv         Volume of region that is air (ml)         Num        8
ankl         Ankle                                     Num        8
aslp         Ankle slope                               Num        8
be600        No. of voxels below -600 HU in a region   Num        8
be620        No. of voxels below -620 HU in a region   Num        8
be640        No. of voxels below -640 HU in a region   Num        8
be660        No. of voxels below -660 HU in a region   Num        8
be810        No. of voxels below -810 HU in a region   Num        8
be830        No. of voxels below -830 HU in a region   Num        8
be850        No. of voxels below -850 HU in a region   Num        8
be870        No. of voxels below -870 HU in a region   Num        8
be890        No. of voxels below -890 HU in a region   Num        8
be900        No. of voxels below -900 HU in a region   Num        8
be910        No. of voxels below -910 HU in a region   Num        8
be920        No. of voxels below -920 HU in a region   Num        8
be930        No. of voxels below -930 HU in a region   Num        8
be940        No. of voxels below -940 HU in a region   Num        8
be950        No. of voxels below -950 HU in a region   Num        8
be960        No. of voxels below -960 HU in a region   Num        8
ccutoff      See IAC Scan Analysis variables listing   Num        8
cvm          See IAC Scan Analysis variables listing   Num        8
cvsd         See IAC Scan Analysis variables listing   Num        8
cvxm         See IAC Scan Analysis variables listing   Num        8
cvxsd        See IAC Scan Analysis variables listing   Num        8
cvym         See IAC Scan Analysis variables listing   Num        8
cvysd        See IAC Scan Analysis variables listing   Num        8
cvzm         See IAC Scan Analysis variables listing   Num        8
cvzsd        See IAC Scan Analysis variables listing   Num        8
entityve     Histogram pgm version number              Char       18
fwhm         See IAC Scan Analysis variables listing   Num        8
historig                                               Num        8
hrcreate     hrcreate cnvrtd to #days frm RZ/scr strt  Num        8
hu10         HU value below which 10% of voxels fall    Num        8
hu15         HU value below which 15% of voxels fall    Num        8
hu20         HU value below which 20% of voxels fall    Num        8
intercep     Value used to convert voxels into HU      Num        8
kint         Knee intercept                            Num        8
knee         See IAC Scan Analysis variables listing   Num        8
kslp         See IAC Scan Analysis variables listing   Num        8
kurt         Kurtosis                                  Num        8
lae50        No. of voxels above -50 HU in a region    Num        8
lae100       No. of voxels above -100 HU in a region   Num        8
lae150       No. of voxels above -150 HU in a region   Num        8
lae200       No. of voxels above -200 HU in a region   Num        8
lae250       No. of voxels above -250 HU in a region   Num        8
laint        Ankle intercept                           Num        8
lairv        Volume of region that is air (ml)         Num        8
lankl        Ankle                                     Num        8
laslp        Ankle slope                               Num        8
lbe600       No. of voxels below -600 HU in a region   Num        8
lbe620       No. of voxels below -620 HU in a region   Num        8
lbe640       No. of voxels below -640 HU in a region   Num        8
```

```
RVER2    -    IAC right lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:                207

Variable                                                  Variable
  Name      Variable Label                     Type      Length      Format

lbe660    No. of voxels below -660 HU in a region    Num         8
lbe810    No. of voxels below -810 HU in a region    Num         8
lbe830    No. of voxels below -830 HU in a region    Num         8
lbe850    No. of voxels below -850 HU in a region    Num         8
lbe870    No. of voxels below -870 HU in a region    Num         8
lbe890    No. of voxels below -890 HU in a region    Num         8
lbe900    No. of voxels below -900 HU in a region    Num         8
lbe910    No. of voxels below -910 HU in a region    Num         8
lbe920    No. of voxels below -920 HU in a region    Num         8
lbe930    No. of voxels below -930 HU in a region    Num         8
lbe940    No. of voxels below -940 HU in a region    Num         8
lbe950    No. of voxels below -950 HU in a region    Num         8
lbe960    No. of voxels below -960 HU in a region    Num         8
lcvm      See IAC Scan Analysis variables listing    Num         8
lcvsd     See IAC Scan Analysis variables listing    Num         8
lcvxm     See IAC Scan Analysis variables listing    Num         8
lcvxsd    See IAC Scan Analysis variables listing    Num         8
lcvym     See IAC Scan Analysis variables listing    Num         8
lcvysd    See IAC Scan Analysis variables listing    Num         8
lcvzm     See IAC Scan Analysis variables listing    Num         8
lcvzsd    See IAC Scan Analysis variables listing    Num         8
lfwhm     See IAC Scan Analysis variables listing    Num         8
lhu10     HU value below which 10% of voxels fall    Num         8
lhu15     HU value below which 15% of voxels fall    Num         8
lhu20     HU value below which 20% of voxels fall    Num         8
lkint     Knee intercept                             Num         8
lknee     See IAC Scan Analysis variables listing    Num         8
lkslp     See IAC Scan Analysis variables listing    Num         8
lkurt     Kurtosis                                   Num         8
lmean     Mean                                       Num         8
lmed      Median                                     Num         8
lsd       Standard deviation                         Num         8
lskew     Skewness                                   Num         8
ltisv     Region vol that is tissue & blood(ml)      Num         8
ltotv     Total volume of region (cubic ml)          Num         8
ltotvx    Total number of voxels in a region         Num         8
lvar      Variance                                   Num         8
mae50     No. of voxels above -50 HU in a region     Num         8
mae100    No. of voxels above -100 HU in a region    Num         8
mae150    No. of voxels above -150 HU in a region    Num         8
mae200    No. of voxels above -200 HU in a region    Num         8
mae250    No. of voxels above -250 HU in a region    Num         8
maint     Ankle intercept                            Num         8
mairv     Volume of region that is air (ml)          Num         8
mankl     Ankle                                      Num         8
maslp     Ankle slope                                Num         8
mbe600    No. of voxels below -600 HU in a region    Num         8
mbe620    No. of voxels below -620 HU in a region    Num         8
mbe640    No. of voxels below -640 HU in a region    Num         8
mbe660    No. of voxels below -660 HU in a region    Num         8
mbe810    No. of voxels below -810 HU in a region    Num         8
mbe830    No. of voxels below -830 HU in a region    Num         8
mbe850    No. of voxels below -850 HU in a region    Num         8
mbe870    No. of voxels below -870 HU in a region    Num         8
mbe890    No. of voxels below -890 HU in a region    Num         8
mbe900    No. of voxels below -900 HU in a region    Num         8
mbe910    No. of voxels below -910 HU in a region    Num         8
mbe920    No. of voxels below -920 HU in a region    Num         8
```

```
RVER2    -    IAC right lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:               207
```

Variable Name	Variable Label	Type	Variable Length	Format
mbe930	No. of voxels below -930 HU in a region	Num	8	
mbe940	No. of voxels below -940 HU in a region	Num	8	
mbe950	No. of voxels below -950 HU in a region	Num	8	
mbe960	No. of voxels below -960 HU in a region	Num	8	
mcvm	See IAC Scan Analysis variables listing	Num	8	
mcvsd	See IAC Scan Analysis variables listing	Num	8	
mcvxm	See IAC Scan Analysis variables listing	Num	8	
mcvxsd	See IAC Scan Analysis variables listing	Num	8	
mcvym	See IAC Scan Analysis variables listing	Num	8	
mcvysd	See IAC Scan Analysis variables listing	Num	8	
mcvzm	See IAC Scan Analysis variables listing	Num	8	
mcvzsd	See IAC Scan Analysis variables listing	Num	8	
mean	Mean	Num	8	
med	Median	Num	8	
mfwhm	See IAC Scan Analysis variables listing	Num	8	
mhu10	HU value below which 10% of voxels fall	Num	8	
mhu15	HU value below which 15% of voxels fall	Num	8	
mhu20	HU value below which 20% of voxels fall	Num	8	
mkint	Knee intercept	Num	8	
mknee	See IAC Scan Analysis variables listing	Num	8	
mkslp	See IAC Scan Analysis variables listing	Num	8	
mkurt	Kurtosis	Num	8	
mmean	Mean	Num	8	
mmed	Median	Num	8	
msd	Standard deviation	Num	8	
mskew	Skewness	Num	8	
mtisv	Region vol that is tissue & blood(ml)	Num	8	
mtotv	Total volume of region (cubic ml)	Num	8	
mtotvx	Total number of voxels in a region	Num	8	
mvar	Variance	Num	8	
newnett	New NETT patient ID no.	Char	5	
passver		Char	13	
scandate	scandate cnvrtd to #days frm RZ/scr strt	Num	8	
sd	Standard deviation	Num	8	
skew	Skewness	Num	8	
slicethi	Slice thickness	Char	14	
tisv	Region vol that is tissue & blood(ml)	Num	8	
totv	Total volume of region (cubic ml)	Num	8	
totvx	Total number of voxels in a region	Num	8	
uae50	No. of voxels above -50 HU in a region	Num	8	
uae100	No. of voxels above -100 HU in a region	Num	8	
uae150	No. of voxels above -150 HU in a region	Num	8	
uae200	No. of voxels above -200 HU in a region	Num	8	
uae250	No. of voxels above -250 HU in a region	Num	8	
uaint	Ankle intercept	Num	8	
uairv	Volume of region that is air (ml)	Num	8	
uankl	Ankle	Num	8	
uaslp	Ankle slope	Num	8	
ube600	No. of voxels below -600 HU in a region	Num	8	
ube620	No. of voxels below -620 HU in a region	Num	8	
ube640	No. of voxels below -640 HU in a region	Num	8	
ube660	No. of voxels below -660 HU in a region	Num	8	
ube810	No. of voxels below -810 HU in a region	Num	8	
ube830	No. of voxels below -830 HU in a region	Num	8	
ube850	No. of voxels below -850 HU in a region	Num	8	
ube870	No. of voxels below -870 HU in a region	Num	8	
ube890	No. of voxels below -890 HU in a region	Num	8	
ube900	No. of voxels below -900 HU in a region	Num	8	

```
RVER2    -    IAC right lung ver2 file

Date file created:  13 May 2006
Observations:           2236
Variables:               207

Variable                                          Variable
  Name        Variable Label                Type   Length    Format

ube910      No. of voxels below -910 HU in a region    Num       8
ube920      No. of voxels below -920 HU in a region    Num       8
ube930      No. of voxels below -930 HU in a region    Num       8
ube940      No. of voxels below -940 HU in a region    Num       8
ube950      No. of voxels below -950 HU in a region    Num       8
ube960      No. of voxels below -960 HU in a region    Num       8
ucvm        See IAC Scan Analysis variables listing    Num       8
ucvsd       See IAC Scan Analysis variables listing    Num       8
ucvxm       See IAC Scan Analysis variables listing    Num       8
ucvxsd      See IAC Scan Analysis variables listing    Num       8
ucvym       See IAC Scan Analysis variables listing    Num       8
ucvysd      See IAC Scan Analysis variables listing    Num       8
ucvzm       See IAC Scan Analysis variables listing    Num       8
ucvzsd      See IAC Scan Analysis variables listing    Num       8
ufwhm       See IAC Scan Analysis variables listing    Num       8
uhu10       HU value below which 10% of voxels fall     Num       8
uhu15       HU value below which 15% of voxels fall     Num       8
uhu20       HU value below which 20% of voxels fall     Num       8
ukint       Knee intercept                              Num       8
uknee       See IAC Scan Analysis variables listing     Num       8
ukslp       See IAC Scan Analysis variables listing     Num       8
ukurt       Kurtosis                                    Num       8
umean       Mean                                        Num       8
umed        Median                                      Num       8
usd         Standard deviation                          Num       8
uskew       Skewness                                    Num       8
utisv       Region vol that is tissue & blood(ml)       Num       8
utotv       Total volume of region (cubic ml)           Num       8
utotvx      Total number of voxels in a region          Num       8
uvar        Variance                                    Num       8
var         Variance                                    Num       8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ    Char      3
vxsize      Voxel size                                  Num       8
```

```
SUBNEJM    -    Subgroup status as defined in primary outcome paper

Date file created:  07 May 2006
Observations:              1218
Variables:                    5

Variable                                            Variable
  Name      Variable Label                    Type  Length    Format

ifdl      1=FEV<=20%,dlco<=20%,0=oth,blnk=nonhirsk  Num      8
ifrc      1=FEV<=20%,nonhetero,0=oth,blnk=nonhirsk  Num      8
maxcat    1=F<=25W or M<=40W, 0=other, blnk=hi rsk  Num      8
newnett   New NETT patient ID no.                   Char     5
ul        1=uppr lobe, 0=other, blank=high risk     Num      8
```

```
SUBSTUDY    -    Indicates participation in substudy (ABG CV LM)

Date file created:  07 May 2006
Observations:              494
Variables:                   4

Variable                                          Variable
  Name      Variable Label                 Type    Length     Format

abg        1=in ABG substudy, 0 otherwise       Num        8
cardio     1=in CV substudy, 0 otherwise        Num        8
lmech      1=in Lung Mech substudy, 0 otherwise Num        8
newnett    New NETT patient ID no.              Char       5
```

```
TMTO    -    Form TM/TO  Trail Making Test

Date file created:  13 May 2006
Observations:            3894
Variables:                 10

Variable                                              Variable
  Name      Variable Label                     Type   Length    Format

form        Form abreviation and revision number  Char      4
formdate    #4 cnvrtd to #days frm RZ/scr strt    Num       8
newnett     New NETT patient ID no.               Char      5
tm209       9   Is this the Rehab assessment      Char      1
tm210       10  Patient ineligible                Char      1
tm207m      7   Trail A: time (min)               Char      2
tm207s      7   Trail A: time (sec)               Char      2
tm208m      8   Trail B: time (min)               Char      2
tm208s      8   Trail B: time (sec)               Char      2
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char      3
```

Purpose: Record results of Trail Making Test.

When: Visit s1 as part of the Rehabilitation Evaluation (assessment must be completed before Core Rehabilitation begins), f24, f48. Use Alternate Trail Making Test (Form TO) for f12, f36, and f60.

Administered by: Rehabilitation staff, Clinic Coordinator, or other staff trained in its administration.

Respondent: Patient.

Instructions: A stopwatch and NETT Flash Card #10 should be available. Administer and score trails A and B as directed below. When testing is completed, attach a label with the patient ID, name code, and appropriate visit code to each of pages 2-5. Staple page 1 to pages 2-5. Only items on page 1 are keyed to the NETT database.

A. Clinic, patient and visit identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date of assessment):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit code: ___ ___ ___

6. Form & revision: t m 2

B. Test

Instructions: *Administer Sample A as instructed on NETT Flash Card #10. After the patient completes Sample A, administer Trail A as instructed on NETT Flash Card #10.*

7. Trail A time: ___ ___ : ___ ___
minutes   seconds

Instructions: *After the patient completes Trail A, administer Sample B as instructed on NETT Flash Card #10. After the patient completes Sample B, administer Trail B as instructed on NETT Flash Card #10.*

8. Trail B time: ___ ___ : ___ ___
minutes   seconds

C. Screen

9. Is this the Rehab Eval (s1/s2) assessment:

(Yes 1)   (No 2)
⬚ 11. ◄┘

10. Based on this assessment is there any reason to declare the patient ineligible for NETT:

(Yes 1)   (No 2)
⬚ 11. ◄┘

_____
specify reason for ineligibility

D. Administrative information

11. Examiner name *(please print):*

_____

12. Examiner signature:

_____

13. Clinic Coordinator PIN: ___ ___ ___

14. Clinic Coordinator signature:

_____

15. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

TRAIL MAKING

Part A

SAMPLE

250

15

17

21

20

19

16

18

4

22

5

13

6

Begin

1

24

7

14

2

8

10

3

9

End

11

25

12

23
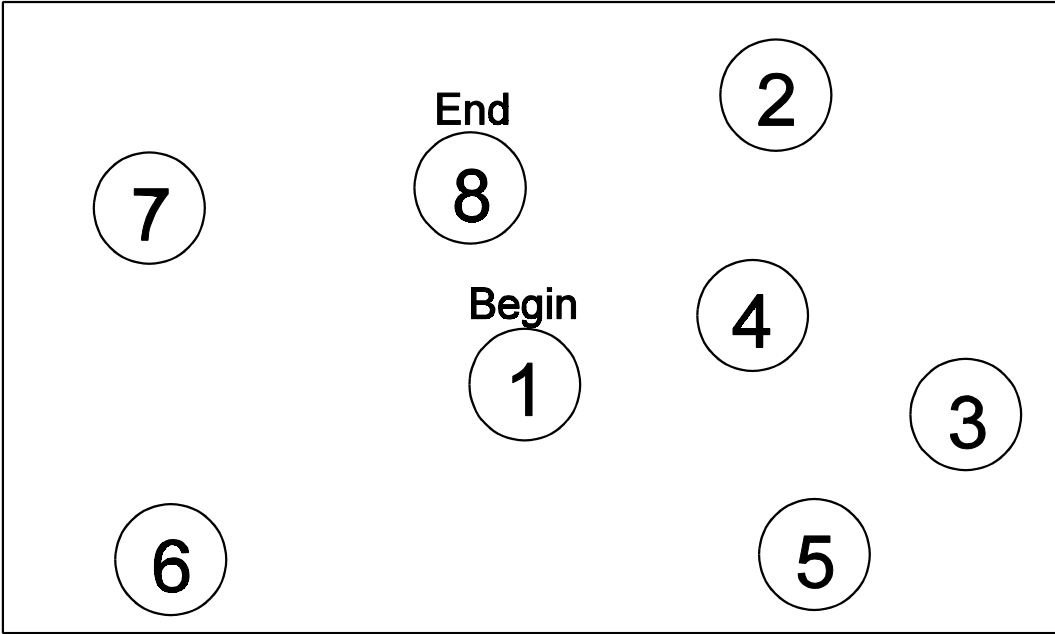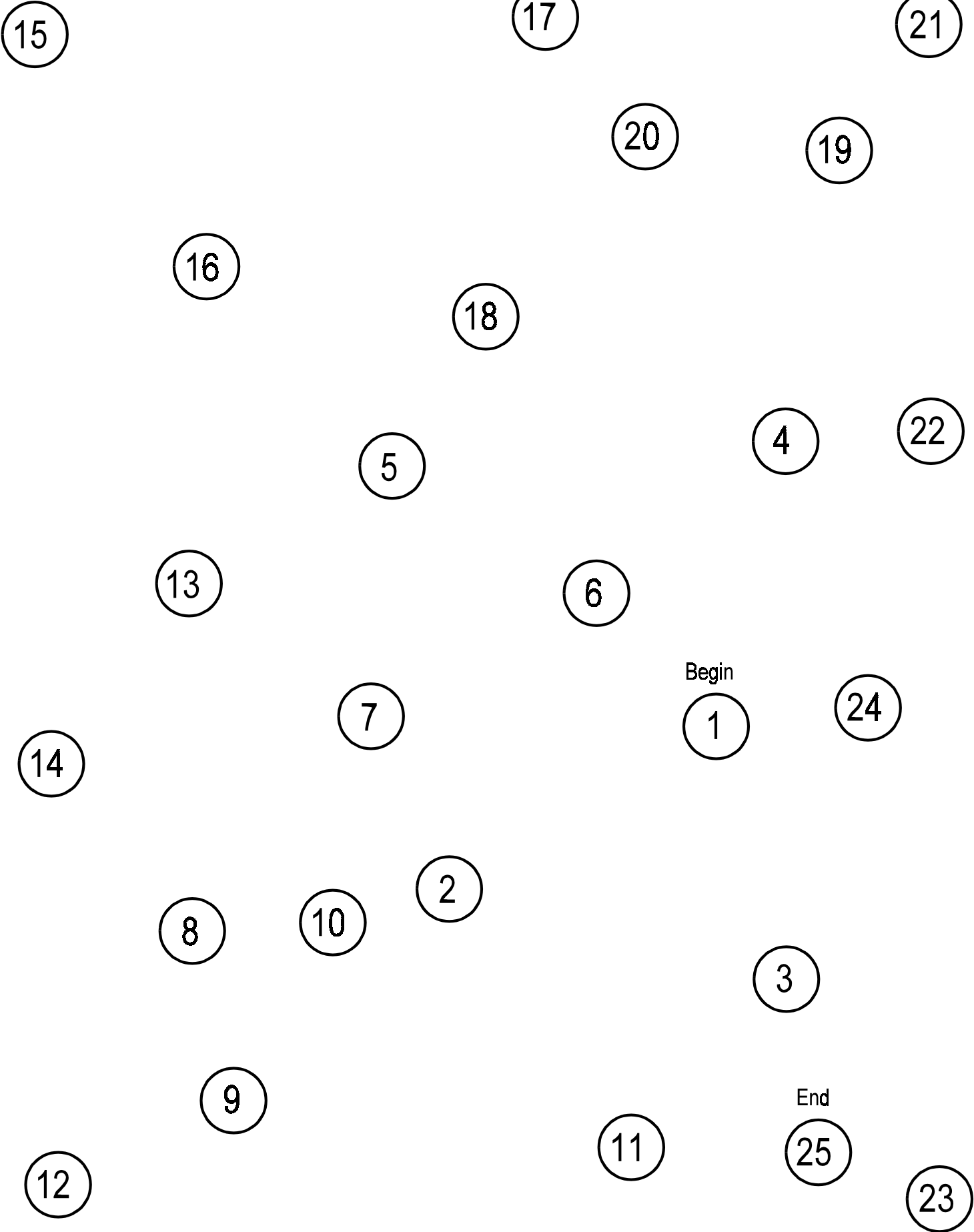
TRAIL MAKING

Part B

SAMPLE

4

End

D

A

Begin

B

1

2

C

3

End
13

252
10

8

9

I

D

B

4

3

Begin
1

7

5

H

C

12

G

A

J

2

6

L

E

F

K

11
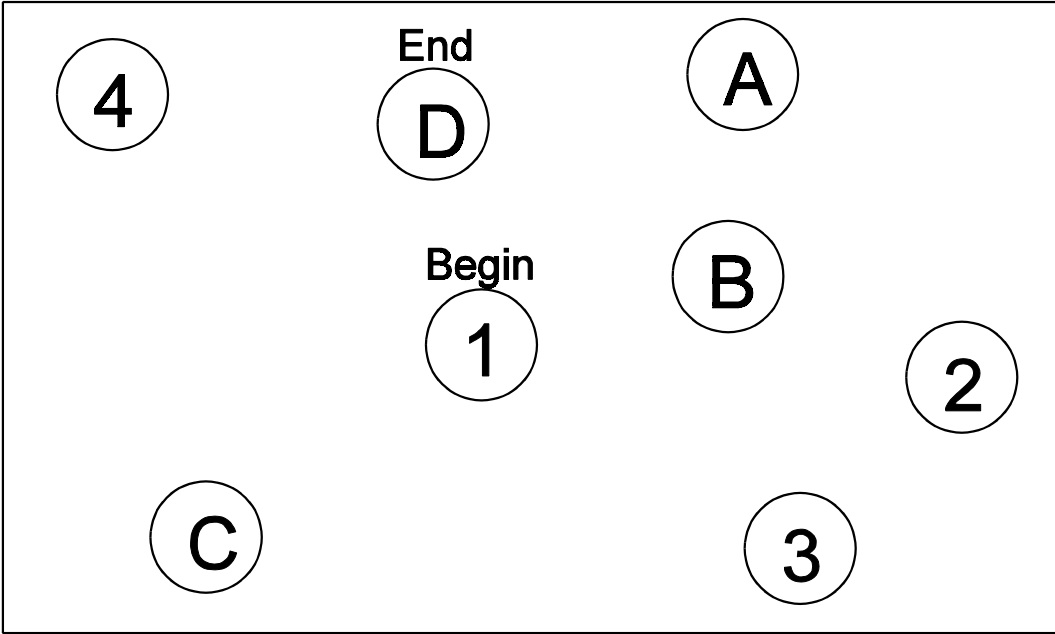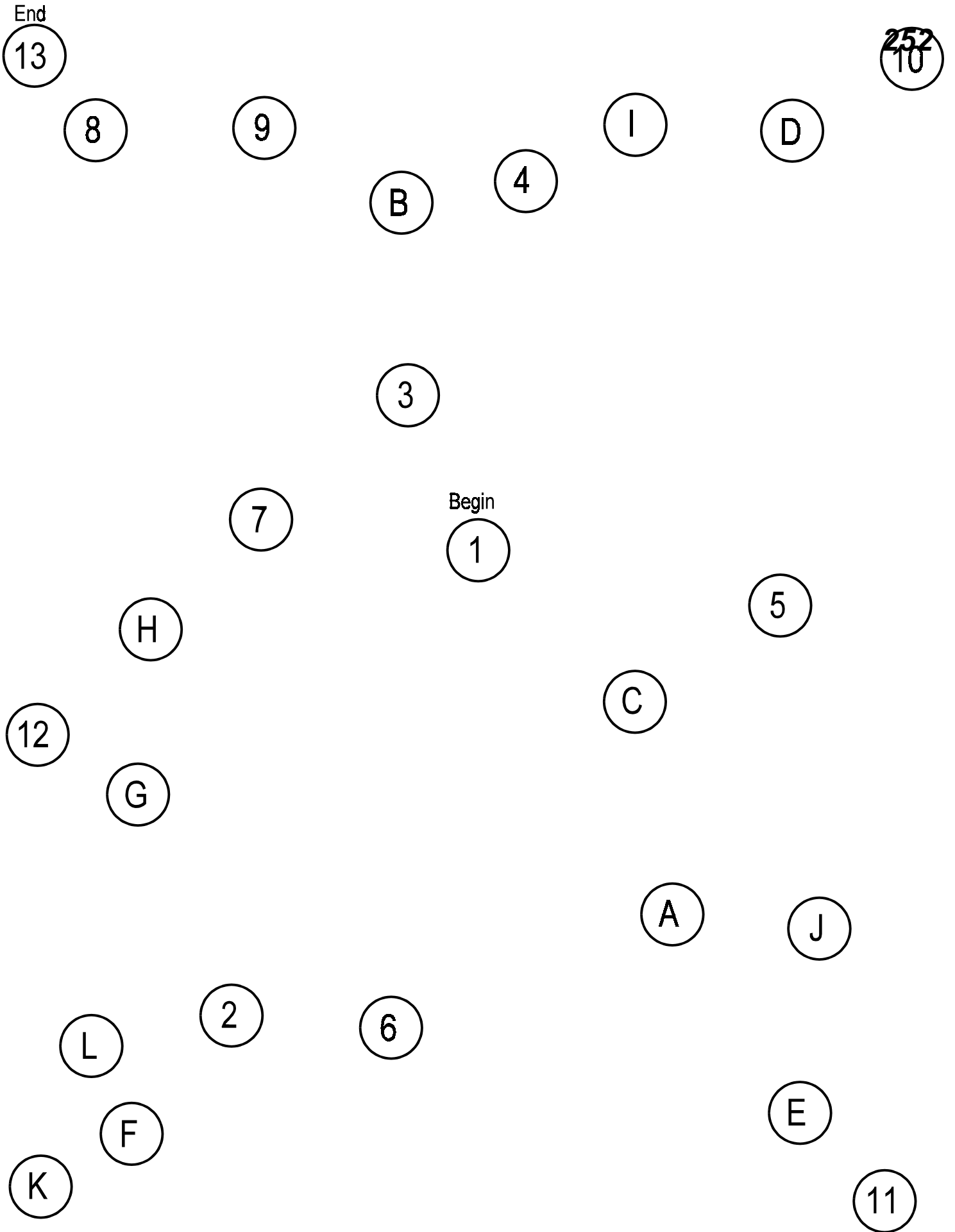
```
UE_ADMIT    -    Admissions to non-acute care facilities based on UE form

Date file created:  13 May 2006
Observations:              69
Variables:                  6

Variable                                          Variable
  Name       Variable Label                 Type   Length     Format

newnett     New NETT patient ID no.         Char      5
ue237       #37 cnvrtd to # of days frm RZ/scr   Num       8
ue238       38  Patient discharged          Char      1
ue239       #39 cnvrtd to # of days frm RZ/scr   Num       8
ue207a      #7a cnvrtd to # of days frm RZ/scr   Num       8
ue207b      7b  Visit code                  Char      3
```

```
UE_EXREH    -    Extra rehab prescriptions based on UE form

Date file created:  13 May 2006
Observations:              324
Variables:                   9

Variable                                              Variable
  Name        Variable Label                 Type     Length     Format

newnett     New NETT patient ID no.          Char        5
ue220       20  Extra education sessions      Char        1
ue222       22  No of extra education sessions Char       3
ue225       25  Extra exercise sessions prescribed Char   1
ue227       27  No of extra exercise sessions Char        3
ue230       30  Extra psychosocial sessions prescrib Char 1
ue232       32  No of extra sessions          Char        3
ue207a      #7a cnvrtd to # of days frm RZ/scr Num        8
ue207b      7b  Visit code                    Char        3
```

```
UE_LVR14   -   Identifies LVRS patients with LVRS more than 14 days after RZ

Date file created:  13 May 2006
Observations:              74
Variables:                 31

Variable                                            Variable
  Name        Variable Label                Type    Length    Format

newnett     New NETT patient ID no.         Char       5
ue214       #14 cnvrtd to # of days frm RZ/scr  Num     8
ue215a      15a COPD exacerbation           Char       1
ue215b      15b Pneumonia                   Char       1
ue215c      15c Other illness               Char       1
ue215d      15d Other issue related to patient  Char   1
ue215e      15e Surgeon not available       Char       1
ue215f      15f Other scheduling problem    Char       1
ue215g      15g Other reason                Char       1
ue216a      16a Spirometry                  Char       1
ue216b      16b MVV                         Char       1
ue216c      16c Lung volumes                Char       1
ue216d      16d DLCO                        Char       1
ue216e      16e ABGs                        Char       1
ue216f      16f Respiratory mouth pressures Char       1
ue216g      16g Oxygen titration            Char       1
ue216h      16h 6 minute walk(s)            Char       1
ue216i      16i Exercise test              Char       1
ue216j      16j Chest x-ray                 Char       1
ue216k      16k CT scan                     Char       1
ue216l      16l Perfusion scan              Char       1
ue216m      16m Blood analyses              Char       1
ue216n      16n Urine analysis              Char       1
ue216o      16o Physical exam               Char       1
ue216p      16p Interim history             Char       1
ue216q      16q SF-36                       Char       1
ue216r      16r SGRQ                        Char       1
ue216s      16s UCSD SOBQ                   Char       1
ue216t      16t QWB                         Char       1
ue216u      16u Other repeated tests        Char       1
ue216v      16v No repeated tests           Char       1
```

```
UE_NNETT    -    Identifies participants with LVRS outside NETT

Date file created:  13 May 2006
Observations:              44
Variables:                  6

Variable                                          Variable
  Name       Variable Label                Type    Length      Format

newnett    New NETT patient ID no.         Char       5
ue241      41  Type of LVRS                Char       1
ue242      42  Operated on right lung      Char       1
ue243      #43 cnvrtd to # of days frm RZ/scr  Num    8
ue244      44  Operated on left lung       Char       1
ue245      #45 cnvrtd to # of days frm RZ/scr  Num    8
```

UE_NOREH   -   Identifies participants with no complete rehab sessions after RZ

Date file created: 13 May 2006
Observations: 108
Variables: 1

Variable Name	Variable Label	Type	Variable Length	Format
newnett	New NETT patient ID no.	Char	5	

```
UE_REF    -    Identifies participants randomized to LVRS but who refused LVRS

Date file created:  13 May 2006
Observations:              28
Variables:                  7

Variable                                        Variable
  Name      Variable Label               Type    Length    Format

newnett    New NETT patient ID no.       Char       5
ue209      9   Patient refused NETT LVRS  Char       1
ue210a     10a Rehab provided enough benefit  Char  1
ue210b     10b LVRS too risky            Char       1
ue210c     10c Other reason for LVRS refusal  Char  1
ue211a     11a LVRS performed as assigned Char      1
ue211b     11b LVRS not done for other reason  Char 1
```

```
UE_TRNS   -    Identifies participants receiving lung transplant during followup

Date file created:  13 May 2006
Observations:              26
Variables:                  3

Variable                                        Variable
  Name                Variable Label      Type   Length    Format

newnett     New NETT patient ID no.       Char      5
ue248       48  Bilateral transplant done Char      1
ue249       #49 cnvrtd to # of days frm RZ/scr  Num   8
```

NETT

Unusual Event

> **Purpose:** To record unusual events, adverse events reportable to NETT, or other events that impact on NETT treatment or participation.
>
> **When:** As needed for randomized or non-randomized NETT patients.
>
> **Administered by:** Clinic Coordinator and Study Physician.
>
> **Respondent:** None.
>
> **Instructions:** Use this form as needed to record incidence of unusual events and adverse events reportable to NETT (see PPM 36). Events to be reported on this form include refusal of NETT LVRS; NETT LVRS different from assigned or LVRS not done for reason other than patient refusal; NETT LVRS done more than 14 days after randomization; failure to complete any post randomization NETT rehabilitation; prescription of additional NETT rehabilitation sessions post randomization (prescription of additional sessions prior to randomization should be documented on Form AA); non NETT LVRS for a NETT patient; lung transplant; unusual or adverse event that occurs during a NETT procedure, rehabilitation session, or examination; other unusual or adverse event that occurs during screening or followup that you consider reportable to NETT, associated with the patient's participation in NETT, or that impacts on the patient's treatment for emphysema or participation in NETT.
>
> This form is constructed to cover each of the listed events in a section. You do not have to repeat information recorded on a previously completed UE form.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: __n__ ___ ___

6. Form & revision: __u__ __e__ __2__

B. Visit interval and treatment assignment identification

7. Most recent scheduled screening or followup visit *(telephone or clinic)*

a. Date: ___ ___ - ___ ___ - ___ ___
day   mon   year

b. Visit code: ___ ___ ___

included in all UE files
except ue_ref.sdz
ue_ lvr14.sdz
ue_mett.sdz
ue_trns.sdz
ue_noreh.sdz

8. Treatment assignment:

Medical treatment   (₁)

17.

Median sternotomy   (₂)
VATS   (₃)
Not randomized   (₄)

40.

C. Refusal of NETT LVRS

9. Did the patient refuse to schedule NETT LVRS:

Yes (₁)   No (₂)

11.

10. Reason for refusal *(check all that apply)*

a. Feels that rehab provided enough benefit: (₁)

b. Feels LVRS is too risky: (₁)

c. Other *(specify):*   (₁)

_____
specify

_____
specify

included in ue_ref.sdz

included in ue-ref.sdz

D. NETT LVRS different from assigned LVRS or not done for reason other than patient refusal

11. LVRS performed as assigned

    a. Was the LVRS performed as assigned *(ie, MS received MS; VATS received VATS)*:

         Yes (1)   No (2)

         13.⌐

    b. Was the LVRS not done for a reason other than patient refusal:

         Yes (1)   No (2)

         13.⌐

12. Reason for LVRS different from assigned LVRS or not done for reason other than patient refusal:

    _____

    _____

    _____

E. NETT LVRS done more than 14 days after randomization

13. Was NETT LVRS done more than 14 days post randomization *(Day 1 = day after randomization, LVRS done on Day 15 or greater is LVRS done more than 14 days post randomization)*:

         Yes (1)   No (2)

         17.⌐

14. Date of LVRS:

    ____ ____ - ____ - ____
    day   mon   year

15. Reason for delay *(check all that apply)*

    a. COPD exacerbation: (1)

    b. Pneumonia: (1)

    c. Patient had other illness: (1)

    _____
             specify

    d. Other issue related to patient: (1)

    _____
             specify

e. Surgeon not available: (1)

f. Other clinic/hospital scheduling problem: *(specify)*:   (1)

_____
             specify

g. Other reason *(specify)*:   (1)

_____
             specify

16. Tests repeated prior to LVRS *(check all that apply)*

    a. Spirometry: (1)

    b. MVV: (1)

    c. Lung volumes: (1)

    d. D_LCO: (1)

    e. ABGs: (1)

    f. Respiratory mouth pressures: (1)

    g. Oxygen titration: (1)

    h. 6 minute walk: (1)

    i. Exercise test: (1)

    j. Chest x-ray: (1)

    k. CT scan: (1)

    l. Perfusion scan: (1)

    m. Blood analyses: (1)

    n. Urine analysis: (1)

    o. Physical exam: (1)

    p. Interim History: (1)

    q. SF-36:   (1)

    r. SGRQ: (1)

    s. UCSD SOBQ: (1)

    t. QWB: (1)

    u. Other *(specify)*:   (1)

_____
             specify

    v. None   (1)

NOTE: Complete Forms XS and XP to record the events of the NETT LVRS.

ue_lvr14. sdz

F. Failure to complete any post randomization rehabilitation

17. Did the patient complete at least one post randomization rehabilitation program session or evaluation:

$$(\overset{Yes}{_1}) \qquad (\overset{No}{_2})$$

ue_noreh.sd2   [19.]⌐

18. Reason for not completing any post randomization rehabilitation program sessions or evaluations:

_____

_____

_____

G. Prescription of extra rehabilitation sessions post randomization

19. Were extra rehabilitation sessions prescribed for the patient post randomization:

$$(\overset{Yes}{_1}) \qquad (\overset{No}{_2})$$

[35.]⌐

20. Were extra education sessions prescribed:

$$(\overset{Yes}{_1}) \qquad (\overset{No}{_2})$$

[25.]⌐

21. Reason for prescribing extra education sessions:

_____

_____

_____

22. Number of extra education sessions prescribed:

___ ___ ___

23. Time frame for completion of the extra education sessions:

_____

_____

_____

24. Topics covered:

_____

_____

_____

25. Were extra exercise sessions prescribed:

$$(\overset{Yes}{_1}) \qquad (\overset{No}{_2})$$

[30.]⌐

26. Reason for prescribing extra exercise sessions:

_____

_____

_____

27. Number of extra exercise sessions prescribed:

___ ___ ___

28. Time frame for completion of extra exercise sessions:

_____

_____

_____

29. Type of exercise sessions prescribed:

_____

_____

_____

30. Were extra psychosocial sessions prescribed:

$$(\overset{Yes}{_1}) \qquad (\overset{No}{_2})$$

[35.]⌐

31. Reason for prescribing extra psychosocial sessions:

_____

_____

_____

32. Number of extra psychosocial sessions prescribed:

___ ___ ___

ue_exreh.sd2

ue-exreh.sdz

33. Time frame for completion of extra
psychosocial sessions:

_____

_____

_____

34. Nature of extra psychosocial sessions
(specify general content):

_____

_____

_____

**H. Admission to medical institution other than
acute care hospital**
*(Eg, extended care facility, skilled nursing facility,
rehabilitation hospital)*

35. Was the patient admitted to a medical
institution other than an acute care
hospital:

Yes (₁)   No (₂)

ue-admit.sdz 40.⌐

36. Reason for admission:

_____

_____

_____

37. Date admitted:

___ ___ - ___ ___ - ___ ___
day   mon   year

38. Has the patient been discharged:

Yes (₁)   No (₂)

40.⌐

39. Date discharged:

___ ___ - ___ ___ - ___ ___
day   mon   year

I. Non NETT LVRS
*(Specify as much information as known; enter d if
you don't have the information requested)*

40. Did the patient receive LVRS outside of
NETT:

Yes (₁)   No (₂)

47.⌐

41. Type of LVRS *(check only one):*

MS   (₁)

VATS   (₂)

Other *(specify)*   (₃)

_____
specify

42. Was the right lung operated on:

Yes (₁)   No (₂)

44.⌐

43. Date of right lung LVRS:

___ ___ - ___ ___ - ___ ___
day   mon   year

44. Was the left lung operated on:

Yes (₁)   No (₂)

46.⌐

45. Date of left lung LVRS:

___ ___ - ___ ___ - ___ ___
day   mon   year

46. Who did the surgery

a. Name of surgeon:

_____

b. Name of hospital/institution:

_____

c. Location of hospital/institution:

_____

J. Lung transplant
*(Specify as much information as known; enter d if
you don't have the information requested)*

47. Did the patient receive a lung transplant:

Yes (₁)   No (₂)

51.⌐

48. Was the transplant bilateral *(check only one):*

Yes   (₁)

No, right side only   (₂)

No, left side only   (₃)

ue_trns.sdz

49. Date of transplant:

___ ___ - ___ ___ - ___ ___
day   mon   year

50. Who did the surgery

    a. Name of surgeon:

    _____

    b. Name of hospital/institution:

    _____

    c. Location of hospital/institution:

    _____

K. Unusual event during a NETT procedure, rehabilitation session, or examination

51. Did the patient experience an unusual event during a NETT procedure, rehabilitation session, or examination:

         Yes   No
         (1)   (2)
               | 58. |—

52. Nature of event:

_____

_____

_____

53. Date event started:

___ ___ - ___ ___ - ___ ___
day   mon   year

54. Date event resolved *(enter n if event is not yet resolved)*:

___ ___ - ___ ___ - ___ ___
day   mon   year

55. Procedure, session, or examination during which event occurred *(check all that apply)*

    a. Spirometry: (1)
    b. MVV: (1)
    c. Lung volumes: (1)
    d. D_LCO: (1)
    e. Respiratory mouth pressures: (1)
    f. Pulmonary mechanics: (1)
    g. Oxygen titration: (1)
    h. 6 minute walk: (1)
    i. Max exercise test: (1)
    j. Chest x-ray: (1)
    k. CT scan: (1)
    l. Perfusion scan: (1)
    m. ECG: (1)
    n. Echocardiogram: (1)
    o. Dobutamine radionuclide scan: (1)
    p. Right heart catheterization: (1)
    q. Blood draw: (1)
    r. Physical exam: (1)
    s. Rehab exercise session: (1)
    t. During LVRS: (1)
    u. While hospitalized post LVRS: (1)
    v. Other *(specify)*:   (1)

_____
specify

56. What action was taken:

_____

_____

_____

ue_ueae.sdz

57. IRB/adverse event reporting

    a. Will this event be reported to the clinic's IRB:

        Yes (1)   No (2)

        58. ⌐

    b. Does this clinic consider this event an adverse event reportable to NETT (per PPM 36):

        Yes (* 1)   No (2)

    If Yes, key this form, send the CC a copy of this UE form, a narrative of the event, and a copy of correspondence with your IRB; by checking Yes, you have stated that this event is considered an adverse event reportable to NETT per PPM 36.

L. Other event judged reportable to NETT or that impacts on the patient's treatment for emphysema or participation in NETT

58. Did the clinic, patient or family experience some other event that (1) the clinic judges is an adverse event reportable to NETT or (2) impacts on the patient's treatment for emphysema or participation in NETT:

        Yes (1)   No (2)

        64. ⌐

59. Nature of event:

    _____

    _____

60. Date event started:

    ___ ___ - ___ ___ - ___ ___
    day   mon   year

61. Date event resolved *(enter n if event is not yet resolved):*

    ___ ___ - ___ ___ - ___ ___
    day   mon   year

62. What action was taken:

    _____

    _____

    _____

    _____

63. IRB/adverse event reporting

    a. Will this event be reported to the clinic's IRB:

        Yes (1)   No (2)

        64. ⌐

    b. Does this clinic consider this event an adverse event reportable to NETT (as defined in PPM 36):

        Yes (* 1)   No (2)

    If Yes, key this form, send the CC a copy of this UE form, a narrative of the event, and a copy of the correspondence with your IRB; by checking Yes, you have stated that this event is considered an adverse event reportable to NETT per PPM 36.

M. Administrative information

    64. Study Physician PIN: ___ ___ ___

    65. Study Physician signature:

    _____

    66. Clinic Coordinator PIN: ___ ___ ___

    67. Clinic Coordinator signature:

    _____

    68. Date form reviewed:

    ___ ___ - ___ ___ - ___ ___
    day   mon   year

```
VALIDS    -    demographic data treatment assignment and vital status

Date file created:  15 June 2008
Observations:              3775
Variables:                    8

Variable                                                Variable
  Name        Variable Label                    Type    Length    Format

deathdt     Death date cnvrtd to #days frm RZ/scr    Num        8
eligdt      Date finl scr cycl strtd,#days frmRZ/scr Num        8
enrolldt    RZ date as #days frm RZ/scr (ie, 0)      Num        8
ethnic      w=white, o=other                         Char       1
gender      m=male, f=female                         Char       1
medid       blnk=nonRZ, 1=medical, 2=MS, 3=VATS      Num        8
newnett     New NETT patient ID no.                  Char       5
vitstat     1=dead, blank=alive                      Char       1
```

```
VC    -    Form VC  Cardiovascular Substudy (rev 1)

Date file created:  07 May 2006
Observations:              218
Variables:                  28

Variable                                            Variable
  Name       Variable Label                   Type   Length    Format

artsat     Arterial sat (oximetry, VC#26)      Num       8
co         Cardiac output (L/min, VC#23)       Num       8
form       Data source (Scharf file or VC form) Char     4
formdate   #4 cnvrtd to # of days frm RZ/scr   Num       8
hemogc     Hemoglobin at cath (g/dL, VC#29)    Num       8
hr         Heart rate (beats/min, VC#24)       Num       8
lvef       MUGA L ventric ejection fraction (VC#30) Num   8
map        Mean arterial pressure (mmHg, VC#8) Num       8
mnpaexp    Mean pulm art end exp (mmHg, VC#19) Num       8
mnpainsp   Mean pulm art end insp (mmHg, VC#20) Num      8
mvo2       Mixed venous O2 sat fraction (VC#25) Num      8
newnett    New NETT patient ID no.             Char      5
padexp     Pulm art end diast exp (mmHg, VC#17) Num      8
padinsp    Pulm art end diast insp (mmHg, VC#18) Num     8
pasexp     Pulm art end syst exp (mmHg, VC#15) Num       8
pasinsp    Pulm art end syst insp (mmHg, VC#16) Num      8
pcwexp     Pulm cap wedge end exp (mmHg, VC#21) Num      8
pcwinsp    Pulm cap wedge end insp (mmHg, VC#22) Num     8
pesexp     End exp esophageal (mmHg, VC#32)    Num       8
pesinsp    End insp esophageal (mmHg, VC#33)   Num       8
raexp      R atrial end exp (mmHg, VC#9)       Num       8
rainsp     R atrial end insp (mmHg, VC#10)     Num       8
rvdexp     R ventric end diast exp (mmHg, VC#13) Num     8
rvdinsp    R ventric end diast insp (mmHg, VC#14) Num    8
rvef       R ventric ejection fraction (VC#27) Num       8
rvsexp     R ventric end syst exp (mmHg, VC#11) Num      8
rvsinsp    R ventric end syst insp (mmHg, VC#12) Num     8
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ Char    3
```

Purpose: Record data for Cardiovascular Substudy.

When: s1 and f06.

Instructions: Use Form VC only for patients participating in the Cardiovascular Substudy. Right heart catheterization data collected for patients who require the procedure for NETT screening because of echocardiogram findings or other reason are recorded on Form HF, Heart Function Summary.

If a Cardiovascular Substudy patient requires right heart catheterization for screening, the right heart catheterization data will be recorded on both this form and Form HF. If a Cardiovascular Substudy patient does not require right heart catheterization for screening, the right heart catheterization data need be recorded only on Form VC.

At visit f06, only Cardiovascular Substudy patients will have right heart catheterization, and the right heart catheterization data obtained at f06 should be completed only on Form VC (not on Form HF).

If you key this form for the s1 visit and the patient is randomized, then you must also account for the Cardiovascular Substudy followup visit at 6 months (f06), either by completing Form VC for f06 (if the patient completes any of the substudy procedures) or by completing Form MV (if the patient misses all of the substudy procedure).

A. All clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date of catheterization)*:

   ___ ___ - ___ ___ - ___ ___
   day   mon   year

5. Visit ID code: ___ ___ ___

6. Form & revision: _V_ _C_ _1_

B. Eligibility for substudy

7. Is the patient in sinus rhythm:

   (Yes 1)   (No *2)
   (EKg) ⌐

   The patient is ineligible for the substudy, but may be eligible for the main trial.

C. Substudy data

8. Mean arterial pressure: *MAP*

   ___ ___ ___
   mmHg

9. Right atrial end expiratory pressure *(circle + or -)*:

   RAexp
   + - ___ ___ . ___ ___
          mmHg

10. Right atrial end inspiratory pressure *(circle + or -)*:

    RA insp
    + - ___ ___ . ___
              mmHg

11. Right ventricular end systolic expiratory pressure: *RVSexp*

    ___ ___ . ___
         mmHg

12. Right ventricular end systolic inspiratory pressure: *RVSinsp*

    ___ ___ . ___
         mmHg

13. Right ventricular end diastolic expiratory pressure *(circle + or -)*: *RVDexp*

    + - ___ ___ . ___
             mmHg

14. Right ventricular end diastolic inspiratory pressure *(circle + or -)*: *RVDinsp*

    + - ___ ___ . ___
             mmHg

15. Pulmonary arterial end systolic expiratory pressure: *PASexp*

    ___ ___ . ___
         mmHg

16. Pulmonary arterial end systolic inspiratory pressure: *PASinsp*

    ___ ___ . ___
         mmHg

17. Pulmonary arterial end diastolic
expiratory pressure:

PADexp ___ ___ • ___ ___
mmHg

18. Pulmonary arterial end diastolic
inspiratory pressure:

PADinsp ___ ___ • ___ ___
mmHg

19. Mean pulmonary arterial end expiratory
pressure:

Mean PAexp ___ ___ • ___ ___
mmHg

20. Mean pulmonary arterial end inspiratory
pressure:

Mean PAinsp ___ ___ • ___ ___
mmHg

21. Pulmonary capillary wedge end
expiratory pressure:

PCWexp ___ ___ • ___ ___
mmHg

22. Pulmonary capillary wedge end
inspiratory pressure *(circle + or -)*:

PCWinsp + - ___ ___ • ___ ___
mmHg

23. Cardiac output:

CO ___ ___ • ___ ___
L/min

24. Heart rate:

HR ___ ___ ___
bpm

25. MVO2 (mixed venous oxygen saturation
fraction):

MVO2 ___ • ___ ___

26. Arterial saturation (oximetry) fraction:

ARTSAT ___ • ___ ___

27. Right ventricular ejection fraction:

RVEF ___ • ___ ___

28. Was hemoglobin measured at
catheterization:

Yes No
(1) (2)
|30.|┘

29. Hemoglobin measured at catheterization:

HEMOGC ___ ___ • ___
g/dL

30. Left ventricular ejection fraction *(from MUGA)*:

LVEF ___ • ___ ___

31. Were esophageal pressures measured:

Yes No
(1) (2)
|34.|┘

32. End expiratory esophageal pressure
(circle + or -):

PESexp + - ___ ___ • ___ ___
mmHg

33. End inspiratory esophageal pressure
(circle + or -):

PESinsp + - ___ ___ • ___ ___
mmHg

D. Administrative information

34. Study physician PIN ___ ___ ___

35. Study physician signature:

_____

36. Clinic Coordinator PIN: ___ ___ ___

37. Clinic Coordinator signature:

_____

38. Date form reviewed:

___ ___ - ___ ___ - ___ ___
day   mon   year

```
WCORE   -   IAC whole lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:                 64

Variable                                          Variable
  Name      Variable Label                Type    Length    Format

actair    Actual air value in the CT scan         Num       8
actbt     Actual blood tissue value in the CT scan Num      8
ae50      No. of voxels above -50 HU in a region  Num       8
ae100     No. of voxels above -100 HU in a region Num       8
ae150     No. of voxels above -150 HU in a region Num       8
ae200     No. of voxels above -200 HU in a region Num       8
ae250     No. of voxels above -250 HU in a region Num       8
aint      Ankle intercept                         Num       8
airv      Volume of region that is air (ml)       Num       8
ankl      Ankle                                   Num       8
aslp      Ankle slope                             Num       8
be600     No. of voxels below -600 HU in a region Num       8
be620     No. of voxels below -620 HU in a region Num       8
be640     No. of voxels below -640 HU in a region Num       8
be660     No. of voxels below -660 HU in a region Num       8
be810     No. of voxels below -810 HU in a region Num       8
be830     No. of voxels below -830 HU in a region Num       8
be850     No. of voxels below -850 HU in a region Num       8
be870     No. of voxels below -870 HU in a region Num       8
be890     No. of voxels below -890 HU in a region Num       8
be900     No. of voxels below -900 HU in a region Num       8
be910     No. of voxels below -910 HU in a region Num       8
be920     No. of voxels below -920 HU in a region Num       8
be930     No. of voxels below -930 HU in a region Num       8
be940     No. of voxels below -940 HU in a region Num       8
be950     No. of voxels below -950 HU in a region Num       8
be960     No. of voxels below -960 HU in a region Num       8
ccutoff   See IAC Scan Analysis variables listing Num       8
cvm       See IAC Scan Analysis variables listing Num       8
cvsd      See IAC Scan Analysis variables listing Num       8
cvxm      See IAC Scan Analysis variables listing Num       8
cvxsd     See IAC Scan Analysis variables listing Num       8
cvym      See IAC Scan Analysis variables listing Num       8
cvysd     See IAC Scan Analysis variables listing Num       8
cvzm      See IAC Scan Analysis variables listing Num       8
cvzsd     See IAC Scan Analysis variables listing Num       8
entityve  Histogram pgm version number            Char     18
fwhm      See IAC Scan Analysis variables listing Num       8
histowho                                          Num       8
hu10      HU value below which 10% of voxels fall  Num       8
hu15      HU value below which 15% of voxels fall  Num       8
hu20      HU value below which 20% of voxels fall  Num       8
hwcreate  hwcreate cnvrtd to #days frm RZ/scr strt Num       8
intercep  Value used to convert voxels into HU     Num       8
kint      Knee intercept                          Num       8
knee      See IAC Scan Analysis variables listing Num       8
kslp      See IAC Scan Analysis variables listing Num       8
kurt      Kurtosis                                Num       8
mean      Mean                                    Num       8
med       Median                                  Num       8
newnett   New NETT patient ID no.                 Char      5
nomair    Nominal air value in a CT scan          Num       8
nombt     Nominal blood tissue value in a CT scan Num       8
passver                                           Char     13
scandate  scandate cnvrtd to #days frm RZ/scr strt Num       8
sd        Standard deviation                      Num       8
skew      Skewness                                Num       8
slicethi  Slice thickness                         Char     14
```

```
WCORE    -    IAC whole lung core file

Date file created:  13 May 2006
Observations:            2236
Variables:                 64

Variable                                            Variable
  Name        Variable Label                  Type   Length      Format

tisv        Region vol that is tissue & blood(ml)   Num      8
totv        Total volume of region (cubic ml)       Num      8
totvx       Total number of voxels in a region      Num      8
var         Variance                                Num      8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ Char     3
vxsize      Voxel size                              Num      8
```

```
WHOLE    -    IAC whole lung holes file

Date file created:  13 May 2006
Observations:              2236
Variables:                   28

Variable                                              Variable
  Name        Variable Label                 Type    Length    Format

alpha_1     At -950, see IAC Scan Analysis vbl list  Num        8
alpha_2     At -930, see IAC Scan Analysis vbl list  Num        8
alpha_3     At -910, see IAC Scan Analysis vbl list  Num        8
alpha_4     At -890, see IAC Scan Analysis vbl list  Num        8
alpha_5     At -870, see IAC Scan Analysis vbl list  Num        8
alpha_6     At -850, see IAC Scan Analysis vbl list  Num        8
c1_1        Y intercept at -950                      Num        8
c1_2        Y intercept at -930                      Num        8
c1_3        Y intercept at -910                      Num        8
c1_4        Y intercept at -890                      Num        8
c1_5        Y intercept at -870                      Num        8
c1_6        Y intercept at -850                      Num        8
cutoff_1    At -950, see IAC Scan Analysis vbl list  Num        8
cutoff_2    At -930, see IAC Scan Analysis vbl list  Num        8
cutoff_3    At -910, see IAC Scan Analysis vbl list  Num        8
cutoff_4    At -890, see IAC Scan Analysis vbl list  Num        8
cutoff_5    At -870, see IAC Scan Analysis vbl list  Num        8
cutoff_6    At -850, see IAC Scan Analysis vbl list  Num        8
entityve    Hole pgm version number                  Char      18
hwcreate    hwcreate cnvrtd to #days frm RZ/scr strt Num        8
intercep    Value used to convert voxels into HU     Num        8
newnett     New NETT patient ID no.                  Char       5
passver                                              Char      13
scandate    scandate cnvrtd to #days frm RZ/scr strt Num        8
slicethi    Slice thickness                          Char      14
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ Char       3
vxsize      Voxel size                               Num        8
wholehol                                             Num        8
```

```
WPEEL    -    IAC whole lung peel file

Date file created:  13 May 2006
Observations:              2236
Variables:                   65

Variable                                                 Variable
  Name      Variable Label                      Type     Length     Format

actair     Actual air value in the CT scan       Num        8
actbt      Actual blood tissue value in the CT scan  Num    8
ae50       No. of voxels above -50 HU in a region  Num      8
ae100      No. of voxels above -100 HU in a region Num      8
ae150      No. of voxels above -150 HU in a region Num      8
ae200      No. of voxels above -200 HU in a region Num      8
ae250      No. of voxels above -250 HU in a region Num      8
aint       Ankle intercept                       Num        8
airv       Volume of region that is air (ml)     Num        8
ankl       Ankle                                 Num        8
aslp       Ankle slope                           Num        8
be600      No. of voxels below -600 HU in a region  Num     8
be620      No. of voxels below -620 HU in a region  Num     8
be640      No. of voxels below -640 HU in a region  Num     8
be660      No. of voxels below -660 HU in a region  Num     8
be810      No. of voxels below -810 HU in a region  Num     8
be830      No. of voxels below -830 HU in a region  Num     8
be850      No. of voxels below -850 HU in a region  Num     8
be870      No. of voxels below -870 HU in a region  Num     8
be890      No. of voxels below -890 HU in a region  Num     8
be900      No. of voxels below -900 HU in a region  Num     8
be910      No. of voxels below -910 HU in a region  Num     8
be920      No. of voxels below -920 HU in a region  Num     8
be930      No. of voxels below -930 HU in a region  Num     8
be940      No. of voxels below -940 HU in a region  Num     8
be950      No. of voxels below -950 HU in a region  Num     8
be960      No. of voxels below -960 HU in a region  Num     8
ccutoff    See IAC Scan Analysis variables listing  Num     8
cvm        See IAC Scan Analysis variables listing  Num     8
cvsd       See IAC Scan Analysis variables listing  Num     8
cvxm       See IAC Scan Analysis variables listing  Num     8
cvxsd      See IAC Scan Analysis variables listing  Num     8
cvym       See IAC Scan Analysis variables listing  Num     8
cvysd      See IAC Scan Analysis variables listing  Num     8
cvzm       See IAC Scan Analysis variables listing  Num     8
cvzsd      See IAC Scan Analysis variables listing  Num     8
entityve   Histogram pgm version number          Char       18
fwhm       See IAC Scan Analysis variables listing  Num     8
histowho                                         Num        8
hu10       HU value below which 10% of voxels fall  Num     8
hu15       HU value below which 15% of voxels fall  Num     8
hu20       HU value below which 20% of voxels fall  Num     8
hwcreate   hwcreate cnvrtd to #days frm RZ/scr strt  Num    8
intercep   Value used to convert voxels into HU  Num        8
kint       Knee intercept                        Num        8
knee       See IAC Scan Analysis variables listing  Num     8
kslp       See IAC Scan Analysis variables listing  Num     8
kurt       Kurtosis                              Num        8
mean       Mean                                  Num        8
med        Median                                Num        8
newnett    New NETT patient ID no.               Char       5
nomair     Nominal air value in a CT scan        Num        8
nombt      Nominal blood tissue value in a CT scan  Num     8
passver                                          Char       13
scandate   scandate cnvrtd to #days frm RZ/scr strt  Num    8
sd         Standard deviation                    Num        8
skew       Skewness                              Num        8
```

```
WPEEL    -    IAC whole lung peel file

Date file created:  13 May 2006
Observations:              2236
Variables:                   65

Variable                                          Variable
  Name        Variable Label                Type  Length     Format

slicethi    Slice thickness                 Char    14
tisv        Region vol that is tissue & blood(ml)   Num     8
totv        Total volume of region (cubic ml)   Num     8
totvx       Total number of voxels in a region   Num     8
var         Variance                        Num     8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ   Char     3
vxsize      Voxel size                      Num     8
```

```
WVER2    -    IAC whole lung ver2 file

Date file created:  13 May 2006
Observations:             2236
Variables:                  64

Variable                                            Variable
  Name      Variable Label                  Type    Length    Format

actair     Actual air value in the CT scan     Num        8
actbt      Actual blood tissue value in the CT scan  Num  8
ae50       No. of voxels above -50 HU in a region    Num  8
ae100      No. of voxels above -100 HU in a region   Num  8
ae150      No. of voxels above -150 HU in a region   Num  8
ae200      No. of voxels above -200 HU in a region   Num  8
ae250      No. of voxels above -250 HU in a region   Num  8
aint       Ankle intercept                     Num        8
airv       Volume of region that is air (ml)   Num        8
ankl       Ankle                               Num        8
aslp       Ankle slope                         Num        8
be600      No. of voxels below -600 HU in a region   Num  8
be620      No. of voxels below -620 HU in a region   Num  8
be640      No. of voxels below -640 HU in a region   Num  8
be660      No. of voxels below -660 HU in a region   Num  8
be810      No. of voxels below -810 HU in a region   Num  8
be830      No. of voxels below -830 HU in a region   Num  8
be850      No. of voxels below -850 HU in a region   Num  8
be870      No. of voxels below -870 HU in a region   Num  8
be890      No. of voxels below -890 HU in a region   Num  8
be900      No. of voxels below -900 HU in a region   Num  8
be910      No. of voxels below -910 HU in a region   Num  8
be920      No. of voxels below -920 HU in a region   Num  8
be930      No. of voxels below -930 HU in a region   Num  8
be940      No. of voxels below -940 HU in a region   Num  8
be950      No. of voxels below -950 HU in a region   Num  8
be960      No. of voxels below -960 HU in a region   Num  8
ccutoff    See IAC Scan Analysis variables listing   Num  8
cvm        See IAC Scan Analysis variables listing   Num  8
cvsd       See IAC Scan Analysis variables listing   Num  8
cvxm       See IAC Scan Analysis variables listing   Num  8
cvxsd      See IAC Scan Analysis variables listing   Num  8
cvym       See IAC Scan Analysis variables listing   Num  8
cvysd      See IAC Scan Analysis variables listing   Num  8
cvzm       See IAC Scan Analysis variables listing   Num  8
cvzsd      See IAC Scan Analysis variables listing   Num  8
entityve   Histogram pgm version number        Char      18
fwhm       See IAC Scan Analysis variables listing   Num  8
histowho                                       Num        8
hu10       HU value below which 10% of voxels fall   Num  8
hu15       HU value below which 15% of voxels fall   Num  8
hu20       HU value below which 20% of voxels fall   Num  8
hwcreate   hwcreate cnvrtd to #days frm RZ/scr strt  Num  8
intercep   Value used to convert voxels into HU   Num       8
kint       Knee intercept                      Num        8
knee       See IAC Scan Analysis variables listing   Num  8
kslp       See IAC Scan Analysis variables listing   Num  8
kurt       Kurtosis                            Num        8
mean       Mean                                Num        8
med        Median                              Num        8
newnett    New NETT patient ID no.             Char       5
nomair     Nominal air value in a CT scan      Num        8
nombt      Nominal blood tissue value in a CT scan   Num  8
passver                                        Char      13
scandate   scandate cnvrtd to #days frm RZ/scr strt  Num  8
sd         Standard deviation                  Num        8
skew       Skewness                            Num        8
slicethi   Slice thickness                     Char      14
```

```
WVER2     -    IAC whole lung ver2 file

Date file created:  13 May 2006
Observations:            2236
Variables:                 64

Variable                                              Variable
  Name       Variable Label                    Type   Length     Format

tisv        Region vol that is tissue & blood(ml)     Num        8
totv        Total volume of region (cubic ml)         Num        8
totvx       Total number of voxels in a region        Num        8
var         Variance                                  Num        8
visit       Visit s1,f06-6mosaftrRZ,f36-36mos aftrRZ  Char       3
vxsize      Voxel size                                Num        8
```

```
XP    -    Form XP  Post-operative Summary Report (rev 3)

Date file created:  13 May 2006
Observations:              580
Variables:                  84

Variable                                              Variable
  Name        Variable Label                 Type     Length    Format

adynil      1=Adynamic ileus in 30 days post op       Num         8
aldure      Max days w/airleak on R or L aftr closr   Num         8
aldyne      Y/N airleak either side ever in 30 days   Num         8
bleed       1=Bleedng,CT>750ml/24hr in30dayspostop    Num         8
bltrnsf     1=Bleeding req transfus in30dayspostop    Num         8
cecvol      1=Cecal volvulus in 30 days post op       Num         8
cholecys    1=Cholecystitis in 30 days post op        Num         8
ctinf       1=CT site infection in 30 days post op    Num         8
cva         1=Cerebrovascular event in 30days postop  Num         8
delir       1=Delirium in 30 days post op             Num         8
divert      1=Diverticulitis in 30 days post op       Num         8
dvt         1=DVT in 30 days post op                  Num         8
empyema     1=Empyema in 30 days post op              Num         8
epicth      1=Epidural cath complic in 30days postop  Num         8
exacbron    1=Exacerb of bronchitis in 30days postop  Num         8
fextub      1=Fail early extubat in30days postop      Num         8
form        Form abreviation and revision number      Char        4
formdate    #4 cnvrtd to # of days frm RZ/scr         Num         8
fwean       1=Failure to wean in 30 days post op      Num         8
gibld       1=GI bleed in 30 days post op             Num         8
mediast     1=Mediastinitis in 30 days post op        Num         8
mi          1=Myocardial infarction in 30days postop  Num         8
newnett     New NETT patient ID no.                   Char        5
nopost      1=No complications in 30 days post op     Num         8
othr        1=Other complic in 30 days post op        Num         8
perfvis     1=Perforated viscus in 30 days post op    Num         8
phleb       1=Phlebitis in 30 days post op            Num         8
pneumon     1=Pneumonia in 30 days post op            Num         8
pneuthor    1=Pneumothorax in 30 days post op         Num         8
pulmembo    1=Pulmonary embolus in 30 days post op    Num         8
read72      1=Readmit tohosp in72hrs in30dayspostop   Num         8
readicu     1=Readmit to ICU in 30days postop         Num         8
reopal      1=Reoperatn for airleak in30dayspostop    Num         8
reopbld     1=Reoperatn for bleeding in30days postop  Num         8
reopdehi    1=Sternal dehisc req reop in30dayspostop  Num         8
sepsis      1=Sepsis in 30 days post op               Num         8
sterdebr    1=Sternal debridement in 30 days post op  Num         8
swi         1=Suprficial wound inf in30dayspostop     Num         8
tia         1=TIA in 30 days post op                  Num         8
trach       1=Tracheostomy in 30 days post op         Num         8
urinet      1=Urinary retention in 30 days post op    Num         8
uti         1=Urinary tract infection in30dayspostop  Num         8
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ    Char        3
xp307       #7 cnvrtd to # of days frm RZ/scr         Num         8
xp308       #8 cnvrtd to # of days frm RZ/scr         Num         8
xp309       9   Air leak -- RT side                   Char        1
xp310       10  Duration of air leak (days) - RT      Char        2
xp312       12  Air leak -- LFT side                  Char        1
xp313       13  Duration of air leak (days) - LFT     Char        2
xp315       15  Tubes placed to suction - RT side     Char        1
xp316       16  Tubes removed - RT side               Char        1
xp317       #17 cnvrtd to # of days frm RZ/scr        Num         8
xp318       18  Tubes placed to suction - LFT side    Char        1
xp319       19  Tubes removed - LFT side              Char        1
xp320       #20 cnvrtd to # of days frm RZ/scr        Num         8
xp322       22  Number of days on ventilator          Char        2
xp323       23  Number of days intubated              Char        2
xp324       24  Number of post-op intubations         Char        2
```

```
XP    -    Form XP  Post-operative Summary Report (rev 3)

Date file created:  13 May 2006
Observations:             580
Variables:                 84

Variable                                            Variable
 Name        Variable Label                  Type   Length    Format

xp325       25  Number of days with epidural analges   Char      2
xp326       26  Number of days with PCA                Char      2
xp327       27  Arrhythmia in 30 day post-op period    Char      1
xp330       30  Discharged in 30day post-op period     Char      1
xp331       #31 cnvrtd to # of days frm RZ/scr         Num       8
xp332       32  Discharged to                          Char      1
xp333       33  Discharged with test tube              Char      1
xp334       34  Re-hospitalized w/in 30 days of LVRS   Char      1
xp335       #35 cnvrtd to # of days frm RZ/scr         Num       8
xp338       38  Patient dischared after readmission    Char      1
xp339       #39 cnvrtd to # of days frm RZ/scr         Num       8
xp311a      11a Talc treatment  - RT side              Char      1
xp311b      11b Blood patch     - RT side              Char      1
xp311c      11c Pleurodesis     - RT side              Char      1
xp311d      11d Other treatment - RT side              Char      1
xp311e      11e No treatment    - RT side              Char      1
xp314a      14a Talc treatment  - LFT side             Char      1
xp314b      14b Blood patch     - LFT side             Char      1
xp314c      14c Pleurodesis     - LFT side             Char      1
xp314d      14d Other treatment - LFT side             Char      1
xp314e      14e No treatment    - LFT side             Char      1
xp321a      21a Number of days in surgical ICU         Char      2
xp321b      21b Number of days in medical ICU          Char      2
xp328a      28a Pharmacologic tx for arrhythmia        Char      1
xp328b      28b Cardioversion tx for arrhythmia        Char      1
xp328c      28c No treatment for arrhythmia            Char      1
```

> **Purpose**: To summarize the 30 day post-operative period.
>
> **When**: 30 days after surgery (if patient died on or before Day 30 post surgery, complete as soon as information is available).
>
> **Administered by**: Clinic Coordinator and thoracic surgeon.
>
> **Respondent**: None.
>
> **Instructions**: This form summarizes the health events occurring in the 30 day period after surgery. The 30 day period is defined as: day of surgery=Day 0; day after surgery=Day 1; count forward till you reach Day 30. Report events that occur from the close of the intra-operative period on Day 0 through Day 30 on this form. Do not report events that happened on Day 31 or later on this form. Do not report intra-operative events on this form. If the patient died **during the surgery**, do not complete this form

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: r   z   ___

6. Form & revision: x   p   3

B. Interval check

7. Date of LVRS:

___ ___ - ___ ___ - ___ ___
day   mon   year

8. Date 30 days post LVRS *(Day 0 = date in item 7; Day 1 = day after date in item 7; record date of Day 30 in this item):*

___ ___ - ___ ___ - ___ ___
day   mon   year

C. Post-operative summary *(report events occurring in interval immediately post surgery through date in item 8)*

9. Air leak, right side:

None ever (1)

None at closure, but developed subsequently (2) → **12.**

Present at closure (3)

10. Number of calendar days in 30 day post-operative period with air leak on right side:

___ ___
days

11. Post-operative treatment for air leak on right side *(check all that apply)*

a. Talc: (1)

b. Blood patch: (1)

c. Pleurodesis (1)

d. Other *(specify):* (1)

_____
specify

e. No treatment post-operative: (1)

12. Air leak, left side:

None ever (1) → **15.**

None at closure, but developed subsequently (2)

Present at closure (3)

13. Number of calendar days in the 30 day post-operative period with air leak on left side:

___ ___
days

14. Post-operative treatment for air leak on
left side *(check all that apply)*

    a. Talc: ($_1$)

    b. Blood patch: ($_1$)

    c. Pleurodesis   ($_1$)

    d. Other *(specify):*   ($_1$)

    ———————————————
                 specify

    e. No treatment post-operative: ($_1$)

15. Were any of the right side chest tubes
ever placed to suction during the 30 day
post-operative period:

    Yes   ($_1$)

    No   ($_2$)

    No right side chest tube(s)   ($_3$)
                                 18. ◄┘

16. Have all chest tubes been removed from
the right side:

    Yes   ($_1$)

    No, at least 1 chest tube remains 30 days
    post-op   ($_2$)
                                 18. ◄┘

    No, patient died with at least 1 chest
    tube still in place: ($_3$)
                                 18. ◄┘

17. Date last right side chest tube was
removed:

    ___ ___ - ___ ___ - ___ ___
      day   mon   year

18. Were any of the left side chest tubes ever
placed to suction during the 30 day
post-operative period:

    Yes   ($_1$)

    No   ($_2$)

    No left side chest tube(s)   ($_3$)
                                 21. ◄┘

19. Have all chest tubes been removed from
the left side:

    Yes   ($_1$)

    No, at least 1 chest tube remains 30 days
    post-op   ($_2$)
                               21. ◄┘

    No, patient died with at least 1 chest
    tube still in place   ($_3$)
                               21. ◄┘

20. Date last left side chest tube was
removed:

    ___ ___ - ___ ___ - ___ ___
      day   mon   year

21. Number of calendar days in ICU in 30
day post-op period *(total days, if more than one
ICU stay)*

    a. Surgical ICU: ___ ___
                                      # days

    b. Medical ICU: ___ ___
                                        # days

22. Number of calendar days on
ventilator in 30 day post-op period: ___ ___
                                      # days

23. Number of calendar days intubated
in 30 day post-op period: ___ ___
                                        # days

24. Number of post-op intubations in
30 day post-op period *(ie, subsequent
to intra-operative intubation):*   ___ ___

25. Number of calendar days with
epidural analgesia in 30 day
post-op period: ___ ___
                                      # days

26. Number of calendar days with patient
controlled analgesia (PCA) in 30 day
post-op period: ___ ___
                                      # days

27. Did the patient experience an arrhythmia
in the 30 day post-operative period:

                    Yes   No
                ($_1$)   ($_2$)
                        29. ◄┘

28. Treatment for arrhythmia *(check all that apply)*

    a. Pharmacologic: (₁)

    b. Cardioversion: (₁)

    c. No treatment required: (₁)

29. Other post-operative complications *(check all that apply)*

    a. Failure of early extubation (> 4 hours from end of operation):   (₁)

    b. Tracheostomy: (₁)

    c. Failure to wean: (₁)

    d. Reoperation for air leak: (₁)

    e. Myocardial infarction: (₁)

    f. Bleeding: chest tube output > 750 ml in 24 hours: (₁)

    g. Reoperation for bleeding: (₁)

    h. Post-operative bleeding requiring transfusion: (₁)

    i. Superficial wound infection (not extending below fascial layer):   (₁)

    j. Mediastinitis: (₁)

    k. Empyema: (₁)

    l. Sternal dehiscence requiring reoperation: (₁)

    m. Pneumonia (infiltrate with fever, elevated WBC, positive sputum - need 2 of 3):   (₁)

    n. Urinary tract infection: (₁)

    o. Urinary retention: (₁)

    p. Exacerbation of bronchitis: (₁)

    q. Phlebitis: (₁)

    r. Epidural catheter complications: (₁)

    s. Sepsis: (₁)

    t. Chest tube site infection: (₁)

    u. Sternal debridement: (₁)

    v. Gastrointestinal bleed: (₁)

    w. Adynamic ileus (NG tube or NPO for > 48 hours):   (₁)

    x. Cecal volvulus: (₁)

    y. Perforated viscus: (₁)

    z. Cholecystitis: (₁)

    aa. Diverticulitis: (₁)

    ab. Cerebrovascular accident: (₁)

    ac. Transient ischemic attack/RIND (symptoms last < 24 hours):   (₁)

    ad. Delirium: (₁)

    ae. DVT documented by non-invasive vascular studies: (₁)

    af. Pulmonary embolus (high probability V/Q scan):   (₁)

    ag. Readmission to hospital within 72 hours of initial discharge from hospital: (₁)

    ah. Readmission to MICU or SICU (after transfer to other unit or home; ie, any readmission to the MICU or SICU):   (₁)

    ai. Other *(specify):*   (₁)

    _____
                  specify

    aj. None of the above   (₁)

30. Was the patient ever discharged from the hospital during the 30 day post-operative period:

    Yes   (₁)

    No, patient was never discharged and survived to at least the day after the date in item 8   (₂) → **40.**

    No, patient died on or before the date in item 8 without ever having been discharged   (₃) → **40.**

31. Date of hospital discharge *(initial discharge if more than one):*

    __ __ - __ __ - __ __
     day   mon   year

32. Where was patient discharged to:

    Patient's home   (₁)

    Relative or friend's home   (₂)

    Nursing home   (₃)

    Rehabilitative or medical care institution   (₄)

    Other *(specify)*   (₅)

    _____
                  specify

33. Was the patient discharged with a chest tube in place attached to a Heimlich valve:

Yes (1)   No (2)

34. Was the patient re-hospitalized on or before the date in item 8 at an acute care facility after discharge:

Yes (1)   No (2)

40. ◄

35. Date of readmission *(earliest date if multiple readmissions):*

__ __ - __ __ - __ __
day   mon   year

36. Reason for readmission:

_____

_____

_____

37. Events/treatment *(describe):*

_____

_____

_____

38. Was the patient discharged after readmission *(discharge on or before the date in item 8):*

Yes (1)

No, still in hospital after readmission (2)

40. ◄

No, died in hospital after readmission (3)

40. ◄

39. Date of discharge *(latest date if multiple discharges during the 30 day post-op period):*

__ __ - __ __ - __ __
day   mon   year

40. 30 day vital status:

Survived to at least the day after the date in item 8 (1)

42. ◄

Dead on or before the date in item 8 (2)

41. Date of death:

__ __ - __ __ - __ __
day   mon   year

D. Administrative information

42. Thoracic surgeon PIN: __ __ __

43. Thoracic surgeon signature:

_____

44. Clinic Coordinator PIN: __ __ __

45. Clinic Coordinator signature:

_____

46. Date form reviewed:

__ __ - __ __ - __ __
day   mon   year

```
XS    -    Form XS  Surgery (Intra-operative) Summary Report (rev 3)

Date file created:  13 May 2006
Observations:                580
Variables:                   101

Variable                                                Variable
  Name        Variable Label                    Type    Length    Format

airlkcle    Air leak at end of closure, R or L    Num       8
form        Form abreviation and revision number  Char      4
formdate    #4 cnvrtd to # of days frm RZ/scr     Num       8
maxincl     Length (cm) of longest incision, R or L Num      8
newnett     New NETT patient ID no.               Char      5
totninc     Total no. of VATS incisions, R+L      Num       8
visit       s1,s2,s3,rz,n,fxx where xx=mos from RZ Char      3
xs307       #7 cnvrtd to # of days frm RZ/scr     Num       8
xs308       8   Bilateral LVRS                    Char      1
xs309       9   Side receiving LVRS               Char      1
xs310       10  Median sternotomy performed       Char      1
xs311       11  Orientation of incision           Char      1
xs312       12  VATS performed                    Char      1
xs315       15  Other procedure done              Char      1
xs329       29  Chest tubes on right side         Char      1
xs330       30  Number of chest tubes: right side Char      2
xs332       32  Chest tubes on left side          Char      1
xs333       33  Number of chest tubes: left side  Char      2
xs335       35  Estimated blood loss (ml)         Char      4
xs339       39  Arrhythmia during LVRS            Char      1
xs343       43  Anesthesia time (min)             Char      3
xs344       44  Time from incision to closure (min) Char     3
xs346       46  Tissue specimens saved            Char      1
xs313a      13a Number of incisions (RT)          Char      2
xs313b      13b Number of incisions (LFT)         Char      2
xs314a      14a Length of incisions (RT)          Char      3
xs314b      14b Length of incisions (LFT)         Char      3
xs316a      16a Adhesions: right side             Char      1
xs316b      16b Adhesions: left side              Char      1
xs317a      17a Location of disease: right side   Char      1
xs317b      17b Location of disease: left side    Char      1
xs318a      18a Amount of lung removed: right side Char      1
xs318b      18b Amount of lung removed: left side Char      1
xs319a      19a Ethicon stapler: right side       Char      1
xs319b      19b US Surgical stapler: right side   Char      1
xs319c      19c 3M stapler: right side            Char      1
xs319d      19d Endo GIA 30 stapler: right side   Char      1
xs319e      19e Endo TA 30 stapler: right side    Char      1
xs319f      19f Other type stapler: right side    Char      1
xs320a      20a Ethicon stapler: left side        Char      1
xs320b      20b US Surgical stapler: left side    Char      1
xs320c      20c 3M stapler: left side             Char      1
xs320d      20d Endo GIA 30 stapler: left side    Char      1
xs320e      20e Endo TA 30 stapler: left side     Char      1
xs320f      20f Other type stapler: left side     Char      1
xs321a      21a 3.5 staple length: right side     Char      1
xs321b      21b 3.8 staple length: right side     Char      1
xs321c      21c 4.8 staple length: right side     Char      1
xs321d      21d Other staple length: right side   Char      1
xs322a      22a 3.5 staple length: left side      Char      1
xs322b      22b 3.8 staple length: left side      Char      1
xs322c      22c 4.8 staple length: left side      Char      1
xs322d      22d Other staple length: left side    Char      1
xs323a      23a Number of cartridges used: right sid Char    2
xs323b      23b Number of cartridges used: left side Char     2
xs324a      24a Peristrips: right side            Char      1
xs324b      24b Seamguard: right side             Char      1
xs324c      24c PTFE: right side                  Char      1
```

```
XS    -    Form XS  Surgery (Intra-operative) Summary Report (rev 3)

Date file created:  13 May 2006
Observations:              580
Variables:                 101

Variable                                              Variable
  Name        Variable Label                  Type    Length    Format

xs324d       24d Other buttressing material: right si   Char       1
xs324e       24e No buttressing material: right side     Char       1
xs325a       25a Peristrips: left side                   Char       1
xs325b       25b Seamguard: left side                    Char       1
xs325c       25c PTFE: left side                         Char       1
xs325d       25d Other buttressing material: left sid    Char       1
xs325e       25e No buttressing material: left side      Char       1
xs326a       26a Pleural tent done: right side           Char       1
xs326b       26b Pleural tent done: left side            Char       1
xs326c       26c Pleural tent not done                   Char       1
xs327a       27a Pleurodesis done: right side            Char       1
xs327b       27b Pleurodesis done: left side             Char       1
xs327c       27c Pleurodesis not done                    Char       1
xs328a       28a Air leak at end of closure - RT         Char       1
xs328b       28b Air leak at end of closure - LFT        Char       1
xs331a       31a Chest tubes to water seal - RT          Char       1
xs331b       31b Chest tubes to suction - RT             Char       1
xs331c       31c Other chest tubes - RT                  Char       1
xs334a       34a Chest tubes to water seal - LFT         Char       1
xs334b       34b Chest tubes to suction - LFT            Char       1
xs334c       34c Other chest tubes - LFT                 Char       1
xs336a       36a Transfusion - whole blood/packed red    Char       1
xs336b       36b Number of units transfused              Char       2
xs337a       37a Patient received fresh frozen plasma    Char       1
xs337b       37b Number of units of frozen plasma        Char       2
xs338a       38a Patient received platelets              Char       1
xs338b       38b Number of packs of platelets            Char       2
xs340a       40a Pharmacologic treatment for arrhythm    Char       1
xs340b       40b Cardioversion treatment for arrhythm    Char       1
xs340c       40c No treatment for arrhythmia             Char       1
xs341a       41a Hypotension                             Char       1
xs341b       41b Hypoxemia                               Char       1
xs341c       41c Hypercarbia                             Char       1
xs341d       41d Cardiac arrest                          Char       1
xs341e       41e Uncontrolled air leak                   Char       1
xs341f       41f Intra-operative death                   Char       1
xs341g       41g Other intraoperative complication       Char       1
xs341h       41h No intraoperative complication          Char       1
xs345a       45a Weight of removed lung: right side      Char       4
xs345b       45b Weight of removed lung: left side       Char       4
xs347a       47a 4-6 fragments in formation saved        Char       1
xs347b       47b 4-6 fragments in Methacarn saved        Char       1
xs347c       47c 4 fragments in OCT saved & snap froz     Char       1
```

> **Purpose**: To summarize the intra-operative events.
>
> **When**: After LVRS has been completed.
>
> **Administered by**: Clinic Coordinator and Thoracic Surgeon who performed the surgery.
>
> **Respondent**: None.
>
> **Instructions**: Use this form to record information related to intra-operative events. Use the Post-operative Summary Report (XP) form to report post-operative events. If surgery was not bilateral, enter ''n'' for questions which cannot be answered for the lung not operated on. If the patient died during surgery, complete this form, as well as the Death Report (DR) form and the Death Certificate Report (DF) form.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ - ___ - ___
day   mon   year

5. Visit ID code: _r_ _z_ ___

6. Form & revision: _x_ _s_ _3_

B. Surgical information

7. Date of LVRS:

___ - ___ - ___
day   mon   year

8. Was the LVRS bilateral:

Yes (1)   No (2)
10. ◄

_____
specify why not

_____
specify why not

_____
describe what was done

_____
describe what was done

9. Which side received LVRS:

Right (1)
Left (2)

10. Was median sternotomy performed:

Yes (1)   No (2)
12. ◄

11. Orientation of incision:

Vertical (1)
Transverse (2)
Other *(specify)* (3)

_____
specify

12. Was VATS performed:

Yes (1)   No (2)
15. ◄

13. Number of incisions

a. Right side: ___ ___
incisions

b. Left side: ___ ___
incisions

14. Length of longest incision

a. Right side: ___ ___ • ___ ___
cm

b. Left side: ___ ___ • ___ ___
cm

15. Was a procedure other than VATS or median sternotomy (or additional to VATS or median sternotomy) performed:

Yes (1)   No (2)
16. ◄

_____
specify

16. Adhesions:

  a. Right side:

    None or minimal (≤ 5% of pleural surface) (₁)
    Moderate (6-20% of pleural surface) (₂)
    Marked (> 20% of pleural surface) (₃)

  b. Left side:

    None or minimal (≤ 5% of pleural surface) (₁)
    Moderate (6-20% of pleural surface) (₂)
    Marked (> 20% of pleural surface) (₃)

17. Location of disease

  a. Right side:

    Upper lobe predominance (₁)
    Lower lobe predominance (₂)
    Diffuse (₃)

  b. Left side:

    Upper lobe predominance (₁)
    Lower lobe predominance (₂)
    Diffuse (₃)

18. Amount of lung removed:

  a. Right lung:

    < 20% (₁)
    20-34% (₂)
    35-49% (₃)
    50-59% (₄)
    60-80% (₅)
    > 80% (₆)

  b. Left lung:

    < 20% (₁)
    20-34% (₂)
    35-49% (₃)
    50-59% (₄)
    60-80% (₅)
    > 80% (₆)

19. Type(s) of stapler used on right side *(check all that apply)*

  a. Ethicon: (₁)
  b. US Surgical/AutoSuture Company: (₁)
  c. 3M: (₁)
  d. Endo GIA 30: (₁)
  e. Endo TA 30: (₁)
  f. Other *(specify):* (₁)

  _____ specify

20. Type(s) of stapler used on left side *(check all that apply)*

  a. Ethicon: (₁)
  b. US Surgical/AutoSuture Company: (₁)
  c. 3M: (₁)
  d. Endo GIA 30: (₁)
  e. Endo TA 30: (₁)
  f. Other *(specify):* (₁)

  _____ specify

21. Staple length, right side *(check all that apply)*

  a. 3.5: (₁)
  b. 3.8: (₁)
  c. 4.8: (₁)
  d. Other *(specify):* (₁)

  _____ specify

22. Staple length, left side *(check all that apply)*

  a. 3.5: (₁)
  b. 3.8: (₁)
  c. 4.8: (₁)
  d. Other *(specify):* (₁)

  _____ specify

23. Number of cartridges used:

  a. Right side: ____ # cartridges

  b. Left side: ____ # cartridges

24. Type of buttressing material used on right side *(check all that apply)*

  a. Peristrips: (₁)
  b. Seamguard: (₁)
  c. PTFE: (₁)
  d. Other *(specify):* (₁)

  _____ specify

  e. None: (₁)

25. Type of buttressing material used on left side *(check all that apply)*

    a. Peristrips: (₁)

    b. Seamguard: (₁)

    c. PTFE: (₁)

    d. Other *(specify):* (₁)

    _____
              specify

    e. None: (₁)

26. Pleural tent performed *(check all that apply):*

    a. Right side (₁)

    b. Left side (₁)

    c. Neither side (₁)

27. Pleurodesis performed *(check all that apply):*

    a. Right side (₁)

    b. Left side (₁)

    c. Neither side (₁)

28. Air leak at end of closure (pleurovac estimation)

    a. Right side:

    None (₁)

    Minimal (occasional bubble or pinhole stream) (₂)

    Moderate (intermediate stream of bubbles with respiratory variation) (₃)

    Large (large stream of nearly constant bubbles) (₄)

    b. Left side:

    None (₁)

    Minimal (occasional bubble or pinhole stream) (₂)

    Moderate (intermediate stream of bubbles with respiratory variation) (₃)

    Large (large stream of nearly constant bubbles) (₄)

29. Were any chest tubes placed on the right side:

    Yes (₁)   No (₂)
    32. ◄⌐

30. Number of chest tubes on right side: ___ ___
                # tubes

31. Placement of chest tubes on right side *(check all that apply)*

    a. To water seal: (₁)

    b. To suction: (₁)

    c. Other *(specify):* (₁)

    _____
              specify

32. Were any chest tubes placed on the left side:

    Yes (₁)   No (₂)
    35. ◄⌐

33. Number of chest tubes on left side: ___ ___
                 # tubes

34. Placement of chest tubes on left side *(check all that apply)*

    a. To water seal: (₁)

    b. To suction: (₁)

    c. Other *(specify):* (₁)

    _____
              specify

35. Estimated blood loss: ___ ___ ___ ___
                     ml

36. Whole blood or packed red cells transfusion

    a. Did the patient receive a transfusion of whole blood and/or packed red cells:

    Yes (₁)   No (₂)
    37. ◄⌐

    b. How many units of whole blood and/or packed red cells were transfused: ___ ___
                     # units

37. Fresh frozen plasma transfusion

    a. Did the patient receive a transfusion of fresh frozen plasma:

    Yes (₁)   No (₂)
    38. ◄⌐

    b. How many units of fresh frozen plasma were transfused: ___ ___
                     # units

38. Platelet transfusion

    a. Did the patient receive a transfusion of platelets:

      Yes (1)   No (2)

      39. ◄─┐

    b. How many packs of platelets were transfused:

      ___ ___ # packs

39. Did the patient experience an arrhythmia during the LVRS:

    Yes (1)   No (2)

    41. ◄─┐

40. Treatment for arrhythmia *(check all that apply)*

    a. Pharmacologic: (1)

    b. Cardioversion: (1)

    c. None: (1)

41. Other intra-operative complications *(check all that apply)*

    a. Hypotension (mean BP < 50 mmHg for more than 10 min): (1)

    b. Hypoxemia (O_2 sat < 88% for more than 10 min): (1)

    c. Hypercarbia (PCO_2 > 70 mmHg): (1)

    d. Cardiac arrest: (1)

    e. Uncontrolled air leak (as defined by surgeon): (1)

    f. Intra-operative death (1)

    g. Other *(specify):* (1)

    _____
      specify

    h. None of the above: (1)

42. Anesthesiologist PIN: ___ ___ ___

43. Anesthesia time *(time from induction of anesthesia to case end):*

    ___ ___ ___ minutes

44. Time from skin incision to closure:

    ___ ___ ___ minutes

45. Weight of lung removed:

    a. Right side:

      ___ ___ ___ • ___ ___ grams

    b. Left side:

      ___ ___ ___ • ___ ___ grams

46. Were tissue specimens saved:

    Yes (1)   No (2)

    49. ◄─┐

47. Specimens saved *(check all that apply):*

    a. 4-6 fragments in formalin (1)

    b. 4-6 fragments in Methacarn (1)

    c. 4 fragments in OCT and snap frozen (1)

48. Location of stored specimens *(specify):*

    _____
      specify location

C. Administrative information

49. Thoracic surgeon PIN *(surgeon who did the surgery reported on this form):*

    ___ ___ ___

50. Thoracic surgeon signature:

    _____

51. Clinic Coordinator PIN: ___ ___ ___

52. Clinic Coordinator signature:

    _____

53. Date form reviewed:

    ___ ___ - ___ ___ - ___ ___
     day   mon   year

```
XZ    -    Form XZ  Documentation of Randomization (rev 2)

Date file created:  13 May 2006
Observations:              1218
Variables:                   10

Variable                                                 Variable
  Name       Variable Label                    Type     Length     Format

form       Form abreviation and revision number    Char        4
formdate   #4 cnvrtd to # of days frm RZ/scr       Num         8
newnett    New NETT patient ID no.                 Char        5
visit      s1,s2,s3,rz,n,fxx where xx=mos from RZ  Char        3
xz208      #8 cnvrtd to # of days frm RZ/scr       Num         8
xz209      9   Treatment assignment               Char        1
xz210      10  Surgery scheduled                   Char        1
xz211      #11 cnvrtd to # of days frm RZ/scr      Num         8
xz212      12  Rehab consolidation phase scheduled Char        1
xz213      #13 cnvrtd to # of days frm RZ/scr      Num         8
```

National Emphysema Treatment Trial
NETT

Documentation of randomization

Purpose: To record the circumstances regarding issue of the treatment assignment to the patient and to confirm the event of scheduling surgery for patients randomized to surgery and the event of scheduling the start of the consolidation phase of the rehabilitation program for patients randomized to medical treatment.

When: Visit rz, after randomization has occurred.

Administered by: Clinic Coordinator.

Respondent: None.

Instructions: The patient should be informed of his/her treatment assignment the same day that the assignment is generated or as soon thereafter as possible.

A. Clinic, visit, and patient identification

1. Clinic ID: ___ ___ ___ ___

2. Patient ID: ___ ___ ___ ___ ___

3. Patient name code: ___ ___ ___ ___ ___

4. Visit date *(date this form is initiated):*

___ ___ - ___ ___ - ___ ___
day   mon   year

5. Visit ID code: _r_ _z_ ___

6. Form & revision: _x_ _z_ _2_

B. Checks

7. PIN number of staff member who informed the patient of his/her treatment assignment:

___ ___ ___

8. Date patient was informed of his/her treatment assignment:

___ ___ - ___ ___ - ___ ___
day   mon   year

9. Treatment assignment:

Medical therapy (_1_)

[12.] ◄┘

MS (_2_)

VATS (_3_)

C. Surgery patients

10. Has the patient been scheduled for surgery:

Yes (_1_)   No (_2_)

[11.] ◄┘

If no, specify why not:

_____
specify

[14.] ◄┘

11. Scheduled date for surgery:

___ ___ - ___ ___ - ___ ___
day   mon   year

[14.] ◄┘

D. Medical patients

12. Has the patient been scheduled for the first rehabilitation consolidation phase visit:

Yes (_1_)   No (_2_)

[13.] ◄┘

If no, specify why not:

_____
specify   [14.] ◄┘

13. Date of scheduled session:

___ ___ - ___ ___ - ___ ___
day   mon   year

E. Next visit

14. Was visit f06 scheduled:

Yes   No

(1)   (2)

16. ←

15. Date and time of visit f06

a. Date: _____ _____ - _____ _____ _____ - _____ _____
           day   mon   year

b. Time:

_____ _____ : _____ _____   (1)   (2)
  hour   minute   am   pm

F. Administrative information

16. Clinic Coordinator PIN: ___ ___ ___

17. Clinic Coordinator signature:

_____

18. Date form reviewed:

_____ _____ - _____ _____ - _____ _____
  day   mon   year