# HP22: Review of Drugs

## Purpose

The *Review of Drugs* form documented departures from the Basic Plan of Therapy, discontinuation of an HDFP drug for any reason, and discontinuation of an non-HDFP drug due to an adverse reaction (see **Section 5.12** of the *Manual of Operations*).

## Special Considerations

- HP22s dated before November 1, 1975 were completed by Coordinating Center physicians using data from participant's HP09s and HP13s.

FORM # 1,2

# REVIEW OF DRUGS

OMB 68-R1325

(Drug initiation, discontinuation, exceptions to basic plan of therapy and adverse reactions.)

1. Program Number: 3,4 | 5,6,7,8,9 | 10,11

2. Date: (3) Month 26,27 | Day 28,29 | 19 Year 30,31

3. Name: (PRINT IN BLOCK CAPITALS) BATCH No. 18,19,20,21,22,23,24,25 (2)

(Mr., Miss, Mrs.) Last First Middle

4. Type of Visit: (4) 32 ☐ 1 Initial Treatment ☐ 2 Clinic Revisit ☐ 3 Other (Specify): _____

(1) 12,13,14,15,16,17 Coordinating Center

## A. SUMMARY OF DRUG STATUS AT THIS VISIT

CHECK ONE BOX FOR EACH DRUG:

| | | Drug Started (Review Section D) | Drug Stopped (Review Section E) | COLS. | | Drug Contraindicated (If drug is being discontinued, complete Section E) | Drug Approved | Drug Conditionally Approved (Comment Section C) | COLS. Comments |
|---|---|---|---|---|---|---|---|---|---|
| (5) | 1. Chlorthalidone* | ☑ | ☐ | 33 | Chlorthalidone* | ☐ | ☐ | ☐ | 48 |
| (6) | 2. Spironolactone | ☐ | ☐ | 34 | Spironolactone | ☐ | ☐ | ☐ | 49 |
| (7) | 3. Reserpine* | ☐ | ☐ | 35 | Reserpine* | ☐ | ☐ | ☐ | 50 |
| (8) | 4. Methyldopa | ☐ | ☐ | 36 | Methyldopa | ☐ | ☐ | ☐ | 51 |
| (9) | 5. Hydralazine | ☐ | ☐ | 37 | Hydralazine | ☐ | ☐ | ☐ | 52 |
| (10) | 6. Guanethidine | ☐ | ☐ | 38 | Guanethidine | ☐ | ☐ | ☐ | 53 |
| (11) | 7. Other: 39.40.41 | ☐ | ☐ | 42 | Other: 54.55.56 | ☐ | ☐ | ☐ | 57 |
| | Other: 43.44.45 | ☐ | ☐ | 46 | Other: 58.59.60 | ☐ | ☐ | ☐ | 61 |
| (13) | Potassium supplement | ☐ | ☐ | 47 | Potassium supplement | ☐ | ☐ | ☐ | 62 |

*Alone or as a constituent of Regroton.

## B. GENERAL EXCEPTIONS

This item applies whenever any intervening clinical or other problem affecting the participant is of a nature or severity sufficient to make advancement to the next Step or other aspects of the Basic Plan of Therapy imprudent in the judgment of the clinic physician, or whenever strict adherence to a Step in the Basic Plan is judged *seriously* to risk loss of compliance, as in the case of marked resistance to change from drugs already in use at entry.

(21) 63

1. ☑ Exception is serious risk of loss of compliance with a Step in the Basic Plan because of preference to continue on prior agents; action taken is to waive requirement for conversion to a Step in the Basic Plan of Therapy. (Explain circumstances and management plan below.)

2. ☑ Other, describe: 3 Both

Column 64
1 = Comment
0 = Blank
(28)

## C. COMMENTS ON CONDITIONAL APPROVAL OR OTHER ITEMS

Column 65
1 = comment
0 = Blank
(29)

(30) 66,67

PHYSICIAN OR THERAPIST: _____

11/1/75

HP22/1

## D. DRUG-SPECIFIC CONTRAINDICATIONS, EXCEPTIONS AND PRECAUTIONS

**Note:** This listing is not exhaustive; the physician and therapist are responsible for maintaining familiarity with current information regarding HDFP drugs.

(31) 1. ☐ CHLORTHALIDONE (including Regroton) or Hydrochlorothiazide, if substituted. (68)

dosage: 50 mg alternate days — 100 mg daily
range: 25 mg avg. to 100 mg daily

a. **CONTRAINDICATIONS**

(i) ALLERGY: History or development of allergy to thiazide diuretics or chlorthalidone.

(ii) DIABETES: History or development of loss of therapeutic control of diabetes, in a participant taking insulin, in the presence of treatment with thiazide-like drugs.

(iii) HYPOKALEMIA: History or development of severe, refractory hypokalemia (potassium below 2.5 mEq/L, or below 3.0 mEq/L if on digitalis therapy) while on thiazide-like drugs plus supplemental potassium.

→ REQUIRED: use spironolactone

b. **EXCEPTIONS AND PRECAUTIONS**

**HYPOKALEMIA**

(32) (i) ☐ ASYMPTOMATIC HYPOKALEMIA: Serum K+ below 3.0 mEq/L on at least 2 determinations. (69)

(ii) ☐ SYMPTOMATIC HYPOKALEMIA: Serum K+ below 3.5 on at least 2 consecutive determinations with one or more of the following: fatigue, weakness, muscle cramps, palpitations, arrhythmia documented by ECG, or other documented symptoms or signs of hypokalemia.

→ permitted: ☐ initiation of oral potassium supplements (33) (70)

(34) (iii) ☐ DIGITALIS IN USE: Participant is taking, or is started on, digitalis. (71)

→ REQUIRED: ☐ potassium supplementation OR (NOT BOTH) ☐ spironolactone as an adjunct to chlorthalidone (35) (72)

(36) (iv) ☐ HYPERGLYCEMIA OR KNOWN DIABETES: history of diabetes or hyperglycemia (above 200 mg/100 ml fasting, or above 250 one hour post-glucose load). (73)

→ REQUIRED: ☐ monitoring of serum glucose at least every 8 weeks and asking about symptoms at each visit. (37) (74)

(38) (v) ☐ INTOLERANCE: chlorthalidone not tolerated by participant, but not contraindicated, according to section "a," above. (75)

→ permitted: ☐ substitution of hydrochlorothiazide for chlorthalidone; completion of section E. (39) (76)

(40) (vi) ☐ OUTSIDE MEDICATIONS: participant is already under treatment from non-HDFP physician, who will not allow change to chlorthalidone. (77)

→ permitted: ☐ provision of alternate thiazide to participant (41) (78)

(42) (vii) ☐ AZOTEMIA: at entry, or in the course of the Program, serum creatinine greater than 2.0 mg/100 ml. (79)

→ permitted: ☐ substitution of furosemide for chlorthalidone and management in Individualized Schedule (43) (80)

(44) 2. ☐ PROBENECID. (81)

dosage: 0.5 gm., 2 to 4 times daily
range: 1.0 to 2.0 gm daily

a. **CONTRAINDICATIONS**

(i) Known hypersensitivity.

(ii) Uric acid kidney stones.

(iii) serum creatinine 2.0 mg/100 ml or greater.

→ REQUIRED: use allopurinol

(45) 3. ☐ ALLOPURINOL. (82)

dosage: 100 mg., 1 to 3 times daily
range: 100 to 300 mg daily

a. **CONTRAINDICATIONS:** none

b. **EXCEPTIONS AND PRECAUTIONS**

(46) (i) ☐ INITIATION OF THERAPY: participant is started on allopurinol. (83)

→ REQUIRED: ☐ monitoring of renal and hepatic function early in therapy to detect possible organ damage (47) (84)

(48) 4. ☐ SPIRONOLACTONE as adjunct or substitute for chlorthalidone. 85

dosage: 25 to 50 mg twice daily
range: 50 to 100 mg daily
indications: see section D. 1. a. (i)-(iii), b. (i)-(iii)

a. **CONTRAINDICATIONS**

(i) AZOTEMIA: serum creatinine level of 2.0 mg/100 ml or greater.

(ii) HYPERKALEMIA: Presence of hyperkalemia (potassium above 5mEq/L) on two determinations.

(49) b. **EXCEPTIONS AND PRECAUTIONS**

(i) ☐ POTASSIUM SUPPLEMENT IN USE: participant is currently taking potassium supplement. 86

→ REQUIRED: ☐ discontinue potassium supplementation except under *severe* hypokalemia (50) 87

(51) c. **INDICATIONS** (CHECK IF PRESENT)

(i) ☐ PERSISTENT HYPOKALEMIA: Serum potassium level of 3.0 mEq/L or below, despite supplemental potassium or spironolactone therapy, as in D.1.b. (i) or (ii) above. 88

→ REQUIRED: ☐ discontinuation of chlorthalidone while diagnosis pending (complete sections E and F) (52) 89

permitted: ☐ permanent substitution of spironolactone for chlorthalidone as the sole diuretic (53) 90

(54) 5. ☐ RESERPINE (including Regroton or other combination medicines containing reserpine). 91

dosage: 0.10 to 0.25 mg daily
range: 0.10 to 0.25 mg daily

a. **CONTRAINDICATIONS**

(i) DEPRESSION: History or development of mental depression as manifested by early morning awakening, or sufficient to interfere with work, recreation or sleep, or leading the participant to seek help.

(ii) ACTIVE ULCER: Evidence of active peptic ulcer (as defined locally by Clinical Center).

→ REQUIRED: use methyldopa

(55) b. **EXCEPTIONS AND PRECAUTIONS**

(i) ☐ PEPTIC ULCER, GASTROINTESTINAL BLEEDING, OR SEVERE ASTHMA by history. 92

→ permitted: ☐ substitution of methyldopa (56) 93

(57) 6. ☐ METHYLDOPA as a substitute for reserpine. 94

dosage: 250 mg 3 times to 500 mg 4 times daily
range: 750 to 2000 mg daily
indications: see section D. 5. a. (i)-(ii), b. (i)

a. **CONTRAINDICATIONS**

(i) ALLERGY/DRUG FEVER: History or development of allergy or drug fever.

(ii) LIVER DISEASE: Evidence of significant liver disease.

(58) 7. ☐ HYDRALAZINE. 95

dosage: 10 mg t.i.d. to 50 mg g.i.d.

a. **CONTRAINDICATIONS:** none

b. **EXCEPTIONS AND PRECAUTIONS**

(59) (i) ☐ CORONARY HEART DISEASE: evidence of clinical coronary heart disease. 96

→ permitted: ☐ skipping directly from Step 2 to Step 4 (60) 97

(61) (ii) ☐ THERAPY WITH HYDRALAZINE IS BEGUN: 98

→ REQUIRED: ☐ precede initiation of hydralazine by reserpine (or methyldopa, if substituted) to reduce risk of tachycardia (62) 99

(63) 8. ☐ GUANETHIDINE. 100

dosage: 10 mg to 200 mg daily (once started)

a. **CONTRAINDICATIONS**

(i) UNRELIABILITY: Participant is judged unlikely to observe necessary caution in administration and clinical observation.

(64) b. **EXCEPTIONS AND PRECAUTIONS**

(i) ☐ PARTICIPANT WITH LOW GOAL (<90) 101

→ permitted: ☐ guanethidine may be used only if persistent BP elevation above 90 while in Step 3. Goal becomes 90. (65) 102

9. ☐ POTASSIUM SUPPLEMENT. dosage: 15 to 80 milliequivalents daily

a. **CONTRAINDICATIONS**
(i) Patient on spironolactone

b. **EXCEPTIONS AND PRECAUTIONS**
(i) ☐ Presence of renal failure, creatinine 2.0, serum potassium 5.5 or greater.

c. **INDICATIONS** (CHECK IF PRESENT)
(i) ☐ Hypokalemia, or Digitalis in use — see Hypokalemia sections under Chlorthalidone.
(ii) ☐ Initiation of oral potassium supplements for any other reason. → REQUIRED: ☐ comment section C

## E. REPORT OF DRUG DISCONTINUATION

(i)

| Line Number | DISCONTINUED BY: HDFP | Non-HDFP Physician | Participant | SUSPECTED ADVERSE REACTION? NO Skip To (ii) | TO BE DETERMINED BY A PHYSICIAN: Possible | Probable | Definite | THERAPY REQUIRED: None | Outpatient | Inpatient |
|---|---|---|---|---|---|---|---|---|---|---|
| 01. Chlorthalidone | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 02. Spironolactone | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 03. Reserpine | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 04. Regroton | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 05. Methyldopa | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 06. Hydralazine | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 07. Guanethidine | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 08. Potassium Chloride | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 09. Other 115·116·117 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Other 119·120·121 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Other 123·124·125 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

(ii) Was drug discontinued as part of Step-Down?
Yes ☐ No ☐

*Comment Required:*

COLUMN 150
1 = Comment
0 = Blank

## F. REPORT OF ADVERSE REACTION

(108) Date of Onset of First Symptoms: Month 151,152 Day 153,154 Year 19 55,56

Specify nature and severity of reaction below.

Note: Use line number from Section E.

| Reaction | Severe | Moderate | Mild | Suspected Medication(s) | Comments |
|---|---|---|---|---|---|
| **Cardiovascular-Renal** | | | | | |
| 1. Angina or chest pain (109) 157 | 1 | 2 | 3 | (110) 158,159 (111) 160,161 (112) 162,163 | (142) Column 214 |
| 2. Arrhythmias (113) 164 | ☐ | ☐ | ☐ | (114) 165,166 (115) 167,168 (116) 169,170 | If more than 3 |
| 3. Tachycardia (117) 171 | ☐ | ☐ | ☐ | (118) 172,173 (119) 174,175 (120) 176,177 | meds for any |
| 4. Bradycardia (121) 178 | ☐ | ☐ | ☐ | (122) 179,180 (123) 181,182 (124) 183,184 | reaction - Punch |
| 5. Palpitations (125) 185 | ☐ | ☐ | ☐ | (126) 186,187 (127) 188,189 (128) 190,191 | a "1" Otherwise |
| 6. Hypotension (129) 192 | ☐ | ☐ | ☐ | (130) 193,194 (131) 195,196 (132) 197,198 | Punch "0" |
| 7. Orthostatic Hypotension (133) 199 | ☐ | ☐ | ☐ | (134) 200,201 (135) 202,203 (136) 204,205 | Same procedure |
| 8. Other: 0/1 (137) 206 (138) 207 | ☐ | ☐ | ☐ | (139) 208,209 (140) 210,211 (141) 212,213 | thru Section F. |
| **GI** | | | | | |
| 1. Peptic Ulcer (143) 215 | ☐ | ☐ | ☐ | (144) 216,217 (145) 218,219 (146) 220,221 | (168) |
| 2. Upper GI distress (nausea and vomiting, gastritis, epigastric distress, etc.) (147) 222 | ☐ | ☐ | ☐ | (148) 223,224 (149) 225,226 (150) 227,228 | Column 258 |
| 3. Diarrhea (151) 229 | ☐ | ☐ | ☐ | (152) 230,231 (153) 232,233 (154) 234,235 | 0/1 |
| 4. GI bleeding (155) 236 | ☐ | ☐ | ☐ | (156) 237,238 (157) 239,240 (158) 241,242 | |
| 5. Abnormal liver function tests (159) 243 | ☐ | ☐ | ☐ | (160) 244,245 (161) 246,247 (162) 248,249 | |
| 6. Other: 0/1 (163) 250 (164) 251 | ☐ | ☐ | ☐ | (165) 252,253 (166) 254,255 (167) 256,257 | |
| **Musculoskeletal** | | | | | |
| 1. Arthritis (169) 259 | ☐ | ☐ | ☐ | (170) 260,261 (171) 262,263 (172) 264,265 | (186) Column |
| 2. Arthralgia (173) 266 | ☐ | ☐ | ☐ | (174) 267,268 (175) 269,270 (176) 271,272 | 288 |
| 3. Muscle cramping (177) 273 | ☐ | ☐ | ☐ | (178) 274,275 (179) 276,277 (180) 278,279 | 0/1 |
| 4. Other: 0/1 (181) 280 (182) 281 | ☐ | ☐ | ☐ | (183) 282,283 (184) 284,285 (185) 286,287 | |
| **Immunological** | | | | | |
| 1. Lupus Syndrome (187) 289 | ☐ | ☐ | ☐ | (188) 290,291 (189) 292,293 (190) 294,295 | (204) |
| 2. Dermatitis, skin rash, urticaria, or other allergic reaction, or hives (191) 296 | ☐ | ☐ | ☐ | (192) 297,298 (193) 299,300 (194) 301,302 | Column 326 |
| 3. Flu-like syndrome (195) 303 | ☐ | ☐ | ☐ | (196) 304,305 (197) 306,307 (198) 308,309 | 0/1 |
| 4. Other allergic reaction: 0/1 (199) 310 (200) 311 | ☐ | ☐ | ☐ | (201) 312,313 (202) 314,315 (203) 316,317 | |
| 5. Other immunological: 0/1 (204) 318 (205) 319 | ☐ | ☐ | ☐ | (206) 320,321 (207) 322,323 (208) 324,325 | |
| **Respiratory** | | | | | |
| 1. Asthma (210) 327 | ☐ | ☐ | ☐ | (211) 328,329 (212) 330,331 (213) 332,333 | Column 341 (218) |
| 2. Nasal stuffiness (214) 334 | ☐ | ☐ | ☐ | (215) 335,336 (216) 337,338 (217) 339,340 | 0/1 |

| Reaction | Severe | Moderate | Mild | Suspected Medication(s) | Comments |
|---|---|---|---|---|---|
| **Sexual** | | | | | |
| 1. Impotence or inability to maintain erection (219) 342 | ∅ | 2 | 3 | (220) 343 344 (221) 345 346 (222) 347 348 | (236) Column 371 |
| 2. Retrograde ejaculation (223) 349 | □ | □ | □ | (224) 350 351 (225) 352 353 (226) 354 355 | 0 / 1 |
| 3. Decreased libido (227) 356 | □ | □ | □ | (228) 357 358 (229) 359 360 (230) 361 362 | |
| 4. Other: 0/1 (231) 363 (232) 364 | □ | □ | □ | (233) 365 366 (234) 367 368 (235) 369 370 | |
| **Neuro-psychiatric** | | | | | |
| 1. Depression (237) 372 | □ | □ | □ | (238) 373 374 (239) 375 376 (240) 377 378 | (252) Column 450 |
| 2. Nightmares or disturbed sleeping habits (241) 379 | □ | □ | □ | (242) 380 381 (243) 382 383 (244) 384 385 | |
| 3. Psychosis (245) 386 | □ | □ | □ | (246) 387 388 (247) 389 390 (248) 391 392 | |
| 4. Numbness or paresthesias (249) 393 | □ | □ | □ | (250) 394 395 (251) 396 397 (252) 398 399 | 0 / 1 |
| 5. Syncope, dizziness or fainting (253) 400 | □ | □ | □ | (254) 401 402 (255) 403 404 (256) 405 406 | |
| 6. Visual difficulties (257) 407 | □ | □ | □ | (258) 408 409 (259) 410 411 (260) 412 413 | |
| 7. Headache (261) 414 | □ | □ | □ | (262) 415 416 (263) 417 418 (264) 419 420 | |
| 8. Lethargy, malaise, fatigue (265) 421 | □ | □ | □ | (266) 422 423 (267) 424 425 (268) 426 427 | |
| 9. Drowsiness (269) 428 | □ | □ | □ | (270) 429 430 (271) 431 432 (272) 433 434 | |
| 10. Weakness (273) 435 | □ | □ | □ | (274) 436 437 (275) 438 439 (276) 440 441 | |
| 11. Other: 0/1 (277) 442 (278) 443 | □ | □ | □ | (279) 444 445 (280) 446 447 (281) 448 449 | |
| **Endocrine-Metabolic** | | | | | |
| 1. Hypokalemia (283) 451 | □ | □ | □ | (284) 452 453 (285) 454 455 (286) 456 457 | (320) |
| 2. Hyperkalemia (287) 458 | □ | □ | □ | (288) 459 460 (289) 461 462 (290) 463 464 | Column 515 |
| 3. Hyperuricemia (291) 465 | □ | □ | □ | (292) 466 467 (293) 468 469 (294) 470 471 | |
| 4. Clinical gout (295) 472 | □ | □ | □ | (296) 473 474 (297) 475 476 (298) 477 478 | |
| 5. Hyperglycemia (299) 479 | □ | □ | □ | (300) 480 481 (301) 482 483 (302) 484 485 | 0 / 1 |
| 6. Diabetic ketoacidosis (303) 486 | □ | □ | □ | (304) 487 488 (305) 489 490 (306) 491 492 | |
| 7. Gynecomastia or breast tenderness (307) 493 | □ | □ | □ | (308) 494 495 (309) 496 497 (310) 498 499 | |
| 8. Menstrual irregularities (311) 500 | □ | □ | □ | (312) 501 502 (313) 503 504 (314) 505 506 | |
| 9. Other: 0/1 (315) 507 (316) 508 | □ | □ | □ | (317) 509 510 (318) 511 512 (319) 513 514 | |
| **Hematological** | | | | | |
| 1. Anemia (321) 516 | □ | □ | □ | (322) 517 518 (323) 519 520 (324) 521 522 | (330) 0/1 Column 531 |
| 2. Other: 0/1 (325) 523 (326) 524 | □ | □ | □ | (327) 526 526 (328) 527 528 (329) 529 530 | |
| **Other** | | | | | |
| 1. 00/01 (331) 532-533 (332) 534 | □ | □ | □ | (333) 535 536 (334) 537 538 (335) 539 540 | Column 559 c/1 |
| 2. 00/01 (336) 541-542 (337) 543 | □ | □ | □ | (338) 544 545 (339) 546 547 (340) 548 549 | (346) |
| 3. 00/01 (341) 550-551 (342) 552 | □ | □ | □ | (343) 553 554 (344) 555 556 (345) 557 558 | |

## G. CASE HISTORY OUTLINE — ADVERSE REACTION

Center Name _____ Participant Program Number (Do not include name) _____

Predominant Symptom(s) _____ Suspected Drug(s) _____

(i) Baseline Blood Pressure: Home _____ Clinic _____

(ii) Pertinent Baseline Findings

(iii) History and Physical Findings Pertinent to Adverse Reaction

(34)
COLUMN 560
Punch "1" if this page is completed
"0" if left blank

(iv) Laboratory Findings Pertinent to Adverse Reaction (Include ECG and X-ray)

(v) Treatment History: Brief Outline of previous treatment and visits pertinent to adverse reaction. All previous adverse reactions should be noted.

| Date | BP | Drug Regimen* | Comments |
|---|---|---|---|
| | | | |
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| | | | |

(vi) Summary and Plan for Follow-Up and Further Comments

(34a)

561 562

Physician _____

*Regimen prescribed on that date.

## Medication Coding on HP22

Fields 11, 13, 22, 24, 78, and 82 are coded as follows:

1) if the drug is an antihypertensive drug, the alpha code is used for the drug. e.g.: A

2) if the drug is a non-antihypertensive drug, the alpha code is preceeded by the letter Y, e.g.: YA

This coding scheme is necessary since both antihypertensive and non-antihypertensive drug codes can appear in fields mentioned above.