

Table 2. Definitions of Comorbidities, Comorbidity Software, Version 2.1

1. Congestive heart failure

ICD-9-CM codes: 398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0-428.9

Discharge does not have these DRGs: Cardiac (103-112, 115-118, 121-127, 129, 132, 133, 135-143, 514-518, 524-527, 535-536)

2. Valvular disease

ICD-9-CM codes: 093.20-093.24, 394.0-397.1, 397.9, 424.0-424.99, 746.3-746.6, V42.2, V43.3

Discharge does not have these DRGs: Cardiac (103-112, 115-118, 121-127, 129, 132, 133, 135-143, 514-518, 524-527, 535-536)

3. Pulmonary circulation disorders

ICD-9-CM codes: 416.0-416.9, 417.9

Discharge does not have these DRGs: Cardiac (103-112, 115-118, 121-127, 129, 132, 133, 135-143, 514-518, 524-527, 535-536) or COPD asthma (88, 96-98)

4. Peripheral vascular disorders

ICD-9-CM codes: 440.0-440.9, 441.00-441.9, 442.0-442.9, 443.1-443.9, 447.1, 557.1, 557.9, V43.4

Discharge does not have these DRGs: Peripheral vascular (130, 131)

5. Hypertension (combine uncomplicated and complicated)

Hypertension, uncomplicated

ICD-9-CM codes: 401.1, 401.9, 642.00-642.04

Discharge does not have these DRGs: No DRGs apply

Hypertension, complicated

ICD-9-CM codes: 401.0, 402.00-405.99, 642.10-642.24, 642.70-642.94

Discharge does not have these DRGs: Cardiac (103-112, 115-118, 121-127, 129, 132, 133, 135-143, 514-518, 524-527, 535-536) or Renal (302-305, 315-333)

6. Paralysis

ICD-9-CM codes: 342.0-344.9, 438.20-438.53

Discharge does not have these DRGs: Cerebrovascular (5, 14-17, 524)

7. Other neurological disorders

ICD-9-CM codes: 330.0-331.9, 332.0, 333.4, 333.5, 334.0-335.9, 340, 341.1-341.9, 345.00-345.11, 345.2-345.3, 345.40-345.91, 780.3, 780.39, 784.3

Discharge does not have these DRGs: Nervous system (1-35, 524, 528-534)

8. Chronic pulmonary disease

ICD-9-CM codes: 490-492.8, 493.00-493.92, 494-494.1, 495.0-505, 506.4

Discharge does not have these DRGs: COPD asthma (88, 96-98)

9. Diabetes without chronic complications

ICD-9-CM codes: 250.00-250.33, 648.00-648.04

Discharge does not have these DRGs: Diabetes (294, 295)

10. Diabetes with chronic complications

ICD-9-CM codes: 250.40-250.93, 775.1

Discharge does not have these DRGs: Diabetes (294, 295)

11. Hypothyroidism

ICD-9-CM codes: 243-244.2, 244.8, 244.9

Discharge does not have these DRGs: Thyroid endocrine (290, 300, 301)

12. Renal failure

ICD-9-CM codes: 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585, 586, V42.0, V45.1, V56.0-V56.32, V56.8

Discharge does not have these DRGs: Kidney transplant, Renal failure/dialysis (302, 316, 317)

13. Liver disease

ICD-9-CM codes: 070.22, 070.23, 070.32, 070.33, 070.44, 070.54, 456.0, 456.1, 456.20, 456.21, 571.0, 571.2, 571.3, 571.40-571.49, 571.5, 571.6, 571.8, 571.9, 572.3, 572.8, V42.7

Discharge does not have these DRGs: Liver (199-202, 205-208)

14. Chronic Peptic ulcer disease (includes bleeding only if obstruction is also present)

ICD-9-CM codes: 531.41, 531.51, 531.61, 531.70, 531.71, 531.91, 532.41, 532.51, 532.61, 532.70, 532.71, 532.91, 533.41, 533.51, 533.61, 533.70, 533.71, 533.91, 534.41, 534.51, 534.61, 534.70, 534.71, 534.91

Discharge does not have these DRGs: GI hemorrhage or ulcer (174-178)

15. HIV and AIDS (Acquired immune deficiency syndrome)

ICD-9-CM codes: 042-044.9

Discharge does not have these DRGs: HIV (488, 489, 490)

16. Lymphoma

ICD-9-CM codes: 200.00-202.38, 202.50-203.01, 203.8-203.81, 238.6, 273.3

Discharge does not have these DRGs: Leukemia/lymphoma (400-414, 473, 492, 539-540)

17. Metastatic cancer

ICD-9-CM codes: 196.0-199.1

Discharge does not have these DRGs: Cancer, lymphoma (10, 11, 64, 82, 172, 173, 199, 203, 239, 257-260, 274, 275, 303, 318, 319, 338, 344, 346, 347, 354, 355, 357, 363, 366, 367, 406-414)

18. Solid tumor without metastasis

ICD-9-CM codes: 140.0-172.9, 174.0-175.9, 179-195.8

Discharge does not have these DRGs: Cancer, lymphoma (10, 11, 64, 82, 172, 173, 199, 203, 239, 257-260, 274, 275, 303, 318, 319, 338, 344, 346, 347, 354, 355, 357, 363, 366, 367, 406-414)

19. Rheumatoid arthritis/collagen vascular diseases

ICD-9-CM codes: 701.0, 710.0-710.9, 714.0-714.9, 720.0-720.9, 725

Discharge does not have these DRGs: Connective tissue (240, 241)

20. Coagulation deficiency

ICD-9-CM codes: 2860-2869, 287.1, 287.3-287.5

Discharge does not have these DRGs: No DRGs apply

21. Obesity

ICD-9-CM codes: 278.0, 278.00, 278.01

Discharge does not have these DRGs: Nutrition /metabolic (296-298)

22. Weight loss

ICD-9-CM codes: 260-263.9, 783.21, 783.22

Discharge does not have these DRGs: Nutrition/metabolic (296-298)

23. Fluid and electrolyte disorders

ICD-9-CM codes: 276.0-276.9

Discharge does not have these DRGs: Nutrition/metabolic (296-298)

24. Blood loss anemia

ICD-9-CM codes: 2800, 648.20-648.24

Discharge does not have these DRGs: Anemia (395, 396)

25. Deficiency anemias

ICD-9-CM codes: 280.1-281.9, 285.21-285.29, 285.9

Discharge does not have these DRGs: Anemia (395, 396)

26. Alcohol abuse

ICD-9-CM codes: 291.0-291.3, 291.5, 291.8, 291.81, 291.89, 291.9, 303.00-303.93, 305.00-305.03

Discharge does not have these DRGs: Alcohol or drug (433-437, 521-523)

27. Drug abuse

ICD-9-CM codes: 292.0, 292.82-292.89, 292.9, 304.00-304.93, 305.20-305.93, 648.30-648.34

Discharge does not have these DRGs: Alcohol or drug (433-437, 521-523)

28. Psychoses

ICD-9-CM codes: 295.00-298.9, 299.10, 299.11

Discharge does not have these DRGs: No DRGs apply,

29. Depression

ICD-9-CM codes: 300.4, 301.12, 309.0, 309.1, 311

Discharge does not have these DRGs: No DRGs apply

Note: A hierarchy was established between the following pairs of comorbidities:

- If both diabetes without chronic complications and diabetes with chronic complications are present, count only diabetes with chronic complications.
- If both solid tumor without metastasis and metastatic cancer are present, count only metastatic cancer.

Current as of August 2004.