

Table 2 Definitions of Comorbidities, Comorbidity Software version 3.4 / 2009	ICD9 CM Diagnosis Codes:	V26 DRGs
1. Congestive Heart Failure	398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0-428.9	Cardiac: 001-002, 215-238, 242-251, 253- 254, 258-262, 265, 280-293, 296-298, 302- 303, 306-313
Changes from 3.3 to 3.4		Added 265
2. Valvular disease	093.20-093.24, 394.0-397.1, 397.9, 424.0-424.99, 746.3-746.6, V42.2, V43.3	Cardiac: 001-002, 215-238, 242-251, 253- 254, 258-262, 265, 280-293, 296-298, 302- 303, 306-313
Changes from 3.3 to 3.4		Added 265
3. Pulmonary Circulation disorders	415.11-415.19, 416.0-416.9, 417.9	Cardiac: 001-002, 215-238, 242-251, 253- 254, 258-262, 265, 280-293, 296-298, 302- 303, 306-313 or COPD asthma 190-192, 202-203
Changes from 3.3 to 3.4		Added 265
4. Peripheral vascular disease	440-440.9, 441.00-441.9, 442.0-442.9, 443.1-443.9, 444.21-444.22, 447.1, 449, 557.1, 557.9, V43.4	Peripheral vascular: 299-301
5. Hypertension (combine uncomplicated and complicated)	Hypertension, uncomplicated: 401.1, 401.9, 642.00-642.04	Hypertension: 077-079, 304-305
	Hypertension, complicated: 401.0, 402.00-405.99, 437.2, 642.10-642.24, 642.70-642.94	Cardiac: 001-002, 215-238, 242-251, 253- 254, 258-262, 280-293, 296-298, 302-303, 306-313 or Renal: 652, 656-661, 673-675, 682-700 or Hypertension: 077-079, 304-305
Changes from 3.3 to 3.4		Added 265
6. Paralysis	342.0-344.9, 438.20-438.53, 780.72	Cerebrovascular: 020-022, 034-038, 064-072
Changes from 3.4 to 3.4	Added 780.72	
7. Other neurological disorders	330.1-331.9, 332.0, 333.4, 333.5, 333.71-333.79, 333.85, 333.94, 334.0- 335.9, 338.0, 340, 341.1-341.9, 345.00- 345.11, 345.2-345.3, 345.40-345.91, 347.00-347.01, 347.10-347.11, 649.40- 649.44, 768.7, 780.3, 780.31, 780.32, 780.39, 780.97, 784.3	Nervous system: 020-042, 052-103
8. Chronic pulmonary disease	490-492.8, 493.00-493.92, 494-494.1, 495.0-505, 506.4,	COPD asthma: 190-192, 202-203
9. Diabetes without chronic complications	249.00-249.31 250.00-250.33, 648.00- 648.04	Diabetes: 637-639
Changes from 3.3 to 3.4	Added 249.00-249.31	
10. Diabetes with chronic complications	249.40-249.91 250.40-250.93, 775.1	
Changes from 3.3 to 3.4	Added 249.40-249.91	
11. Hypothyroidism	243-244.2, 244.8, 244.9	Thyroid endocrine: 625-627, 643-645
12. Renal failure	403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585.3, 585.4, 585.5, 585.6, 585.9, 586, V42.0, V45.1, V45.11, V45.12, V56.0-V56.32, V56.8	Kidney transplant, Renal failure/dialysis: 652, 682-685
Changes from 3.3 to 3.4	Added V45.11, V45.12	
13. Liver disease	070.22, 070.23, 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	Liver: 420-425, 432-434, 441-446
14. Chronic Peptic ulcer disease (includes bleeding only if obstruction is also present)	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	GI Hemorrhage or ulcer: 377-384
15. HIV and AIDS (Acquired immune deficiency syndrome)	042-044.9	HIV: 969-970, 974-977
16. Lymphoma	200.00-202.38, 202.50-203.01, 203.02-	Leukemia/lymphoma: 820-830, 834-849

	203.82, 203.8-203.81, 238.6, 273.3	
Changes from 3.3 to 3.4	Added 203.02- 203.82	
17. Metastatic cancer	196.0-199.1, 789.51	Cancer, Lymphoma: 054, 055, 146-148, 180-182, 374-376, 435-437, 542-544, 582-583, 597-599, 656-658, 686-688, 715-716, 722-724, 736-741, 754-756, 826-830, 843-849
18. Solid tumor without metastasis	140.0-172.9, 174.0-175.9, 179-195.8, 209.00-209.24, 209.25-209.3, 258.01-258.03	Cancer, Lymphoma: 054, 055, 146-148, 180-182, 374-376, 435-437, 542-544, 582-583, 597-599, 656-658, 686-688, 715-716, 722-724, 736-741, 754-756, 826-830, 843-849
Changes from 3.3 to 3.4	Add 209.00-209.24, 209.25-209.3	
19. Rheumatoid arthritis/collagen vascular diseases	701.0, 710.0-710.9, 714.0-714.9, 720.0-720.9, 725	Connective tissue: 545-547
20. Coagulation deficiency	286.0-286.9, 287.1, 287.3-287.5, 289.84, 649.30-649.34	Coagulation disorders: 813
Changes from 3.3 to 3.4	Added 289.84	
21. Obesity	278.0, 278.00, 278.01, 649.10-649.14, 793.91, V85.30-V85.4, V85.54	
22. Weight loss	260-263.9, 783.21, 783.22	
23. Fluid and electrolyte disorders	276.0-276.9	
24. Blood loss anemia	280.0, 648.20-648.24	
25. Deficiency anemias	280.1-280.9, 285.21-285.29, 285.9	
26. Alcohol abuse	291.0-291.3, 291.5, 291.8, 291.81, 281.82, 291.89, 291.9, 303.00-303.93, 305.00-305.03	
27. Drug abuse	292.0, 292.82-292.89, 292.9, 304.00-304.93, 305.20-305.93, 648.30-648.34	Alcohol or drug: 894-897
28. Psychoses	295.00-298.9, 299.10, 299.11	Psychoses: 885
29. Depression	300.4, 301.12, 309.00, 309.1, 311	Depressive neurosis: 881
Comments: The following DRGs had been deleted prior to 2007 and renumbered to a different DRG; they did not have a corresponding V25 MSDRG value, but the renumbered DRGs were included in the 2007 update and has been represented by the equivalent v25 MSDRGs: 004-005, 020, 024-025, 107, 109, 112, 115,-116, 298, 363, 400, 414, 434-437, 514, 516-517, 522, 526-527		