SUPPLEMENTAL DIGITAL CONTENT 1.International Classification of Diseases, Volume 2, Clinical Modification (ICD-9-CM) codes **used to identify comorbid conditions**

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| **Comorbid condition** | **ICD-9-CM diagnosis codes** |
| ADHD | 314.00, 314.01, 314.1, 314.2, 314.8, 314.9 |
| Anxiety, Depression, and Bipolar Disorder | |  | | --- | | 293.84, 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.10, 296.11, 296.12, 296.13, 296.14, 296.15, 296.16, 296.20, 296.21,296.22, 296.23, 296.24, 296.25, 296.26, 296.30,296.31, 296.32, 296.33, 296.34, 296.35, 296.26, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.81, 296.82, 296.89, 296.90, 296.99, 298.0, 300.00, 300.01, 300.02, 300.09, 300.10, 300.20, 300.21, 300.22, 300.23, 300.29, 300.3, 300.4, 300.5, 300.89, 300.9, 308.0, 308.1, 308.2, 308.3, 308.4, 308.9, 309.1, 309.81, 311, 313.0, 313.1, 313.21, 313.22, 313.3, 313.82, 313.83 | |  | |
| Non-opioid substance abuse or poisoning | 303, 304.1-304.6, 304.8, 304.9, 305.1-305.4, 305.6-305.9, V11.3, 960-964, 965.01, 966-989 |
| Headache/ migraine | 997.60, 997.61, 997.62, 997.69, 346.00, 346,01, 346.02, 346.03, 346.10.346.11, 346.12, 346.13, 346.20, 346.21, 346.22, 346.23, 346.80, 346.81, 346.82, 346.83, 346.90, 346.91, 346.92, 346.93, 784.0, 307.81, 339.10, 339.11. 339.12 |
| Low back pain | 721.3, 722.10, 722.32, 722.52, 722.93, 724.02, 724.2-724.3, 724.5-724.7, 738.5, 739.3-739.4, 846.0-846.3, 846.8-846.9, 847.2 |
| Other back and neck disorders | 720.xx, 721.0-721.2, 721.4-721.9, 722.0, 722.11, 722.2, 722.30-722.31, 722.39, 722.4, 722.51, 722.6, 722.70, 722.71, 722.72, 722.72, 722.80, 722.81, 722.82, 722.83, 722.90, 722,92, 722.92, 723.x, 724.01, 724.09, 724.1, 724.4, 724.8-724.9, 729.2,733.13, 733.00, 737.0, 737.10, 737.11, 737.12,737.19, 737.20,737.21, 737.22, 737.29, 737.30, 737.31,737.32, 737.33, 737.34, 737.39, 737.9, 738.4, 739.1-739.2, 741.00, 741.01, 741.02, 741.03, 741.90, 741.91, 741.92, 741.93, 742.51, 742.3, 742.59, 847.0-847.1, 847.3-847.4, 847.9 |
| Osteoarthritis | 715.00, 715.04, 715.09-715.18, 715.20-715.28, 715.30-715.38, 715.80, 715.89-715.98, 716.20-716.39, 716.60-716.68, 721.0, 721.1, 721.2, 721.3, 721.41, 721.42 |
| Chronic Pain and Fibromyalgia | 338.2, 338.28, 338.29,338.4, 729.1 |
| Neuropathic pain | 053.10-053.13, 053.19, 053.2, 053.7, 053.9, 250.6, 300.89, 333.84, 336.9-337.0, 337.9, 346.20, 350-357, 377.30, 385.89, 388.50, 388.71, 511.0, 607.90, 608.89-608.90, 625.90, 788.00, 788.10, 897.2, 897.4, 897.6, 950-957, 997.6 |
| Diabetes mellitus | 249.00, 249.01, 249.10, 249.11, 249.20, 249.21, 249.30, 249.31, 249.40, 249.41, 249.50, 249.51, 249.60, 249.61, 249.70, 249.71, 249.80, 249.81, 249.90, 249.91, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.70, 250.71, 250.72, 250.73, 250.80, 250.81, 250.82, 250.83, 250.90, 250.91, 250.92, 250.93, 357.2, 362.01, 362.02, 362.03, 362.04, 362.05, 362.06, 366.41 |