**Appendix: Diagnostic Codes Used to Identify Relevant Comorbidities**

| **Comorbidities** | **ICD-9 Codes** |
| --- | --- |
| **Musculoskeletal Pain Conditions** | |
| Back and neck pain, other than low back pain | 720.81, 720.89, 720.9, 721.0, 721.2, 721.5, 721.6, 721.7, 721.8, 721.90, 722.11, 722.30, 722.31, 722.39, 722.4, 722.6, 722.80, 722.81, 722.82, 722.90, 722.91, 722.92, 723.X (except 723.4), 724.01, 724.1, 724.8, 724.9, 737.10, 737.11, 737.12, 737.19, 737.20, 737.21, 737.22, 737.29, 737.30, 756.10, 756.13, 756.14, 756.15, 756.16, 756.17, 756.19, 805.8, 847.9 |
| Rheumatism, excluding the back | 725-728.9, 729.3 – 729.9 |
| Arthritis and other arthropathies | 711.XX, 712.XX, 713.X, 714.4X, 714.8X. 714.9X, 716.XX, 717.XX, 718.XX, 719.XX |
| Osteoarthritis | 715.XX |
| Rheumatoid arthritis | 714.0, 714.1, 714.2 |
| Diffuse diseases of connective tissue | 710.1, 710.2, 710.3, 710.4, 710.5, 710.8, 710.9 |
| Other musculoskeletal pain conditions | 730.00 – 739.X |
| **Neuropathic Pain Conditions** | |
| Back and neck pain with neuropathic involvement (except low back) | 721.1, 721.41, 721.91, 722.70, 722.71, 722.72, 723.4 |
| Neuropathic low back pain | 721.42, 722.73, 724.3, 724.4 |
| Other polyneuropathies | 344.6, 353.0, 353.1, 353.8, 353.9, 354.1, 354.2, 354.3, 354.5, 354.8, 354.9, 355.0, 355.1, 355.2, 355.3, 355.4, 355.5, 355.6, 355.79, 355.8, 357.1, 357.3, 357.4, 357.5, 357.6, 357.7, 357.8, 357.9 |
| Carpal tunnel syndrome | 354.0 |
| Causalgias | 337.2X, 354.4, 355.71, 355.9 |
| Diabetic neuropathy | 357.2, 250.6 |
| Atypical facial pain | 350.2 |
| Autonomic neuropathies | 337.1, 337.9 |
| Trigeminal neuralgia | 350.1 |
| Postherpetic neuralgia | 053.1 |
| Phantom limb pain | 353.6 |
| Depression | 296.2X, 296.3X, 300.4, 311 |
| Anxiety | 300.00, 300.5, 300.09, 300.20, 300.22, 300.23, 300.29, 300.3, 308.3 |
| Insomnia/sleep disorder | 780.5X, 307.4X, 347.0X, 347.1X, V69.4 |