**Appendix 1.** International Classification of Diseases, 9th Revision, Clinical Modification and International Classification of Diseases, 10th Revision, Clinical Modification diagnosis codes were classified into categories as listed below

***Hip-Related Diagnoses***

FAI: 726.5, 732.1, 732.2, 738.6, 738.8, 843.8, 843.9, 718.05, 718.45, 718.55, 718.65,

718.85, 718.95, 719.45, 719.55, 719.65, 719.85, 719.95, 726.91, 727.00, 727.01, 727.09

733.20, 733.21, 733.29, 733.90, 733.99, 736.30, 736.39, 755.63

Osteoarthritis: 732.9, 715.15, 715.16, 715.25, 715.35, 715.36, 715.90, 715.95, 715.96,

716.15, 716.55, 716.85, 716.90, 716.95, 718.08, 718.15, 719.15, 733.92

Inflammation: 714.0, 723.7, 719.25, 733.42

Dysplasia: 728.4, 718.35, 718.75, 754.30, 754.32, 754.33, 835.00

Soft tissue: 727.3, 727.9, 728.9, 843.0, 843.1, 959.6, 719.46, 726.90, 727.69, 727.81, 727.82,

727.89, 728.83, 728.89, 729.90

*Lower Back Pain Diagnoses*

721.3, 721.42, 721.5, 721.6, 721.8, 722.1, 722.11, 722.32, 722.5, 722.51, 722.52, 722.73, 722.83, 722.93, 724.0, 724.02, 724.03, 724.1, 724.2, 724.3, 724.4, 724.6, 724.7, 724.71, 724.79, 724.79, 737.10, 737.11, 737.12, 737.19, 737.20, 737.21, 727.22, 737.29, 737.30, 737.31, 737.32, 737.33, 737.34, 737.39, 738.4, 739.2, 739.3, 739.4, 756.11, 756.13, 756.14, 756.16, 756.17, 846.0, 846.1, 846.2, 846.3, 846.8, 846.9, 847.1, 847.2, 847.3

*Depression*

311.0, 296.2, 296.3, 296.5, 296.6, 296.82

Antidepressants included more than 4000 National Drug Codes. The National Drug Codes used for this study can be viewed on the Healthcare Effectiveness Data and Information Set® website [34].