Identification of Neuropsychiatric Symptoms in Chronic Pain Patients Receiving Joint and Soft Tissue Corticosteroid Injections

Rachel Lise Ciota, DNP, RN, FNP-C

LOCAL PROBLEM
Neuropsychiatric side effects resulting from corticosteroid use are a documented occurrence but available literature focuses on long-term oral and epidural injection steroid therapies rather than intermittent joint and soft tissue injections. No clear guideline exists specifically addressing the dosage or duration between joint and soft tissue injections. The perceived and reported benefits of frequent (more often than every three months) administration of intra and peri-articular joint and soft tissue injections by chronic pain patients in a private interventional pain management clinic make it difficult to limit this therapy without contention.

PROJECT PURPOSE
The purpose of this project is to identify the presence of neuropsychiatric symptoms in chronic pain patients receiving office-based corticosteroid injections (CSI) more often than every three months compared to those receiving them less often and to evaluate the benefit to pain and activity levels based on the frequency of injections.

METHODOLOGY
The Iowa Model of Research-Based Practice to Promote Quality Care framework used in this study guides clinicians in evaluating for practice change and incorporating research findings into patient-centered care. Generalized Anxiety Disorder (GAD-7) and Center for Epidemiologic Studies Depression Scale Revised (CEDS-R) screening test scores were obtained through an electronic behavioral health assessment tool. Pain and activity level scores were obtained through the Indiana Polyclinic Combined Pain and Function Scales survey.

RESULTS
This study showed no evidence that there is 1) a difference in neuropsychiatric symptoms between the frequent and less frequent CSI groups; 2) a correlation between total corticosteroid dose and neuropsychiatric symptoms; or 3) an improvement in pain and activity levels between the frequent and less frequent CSI groups.

IMPLICATIONS FOR PRACTICE
Future studies are needed to study the relationship between CSI frequency and neuropsychiatric symptoms. Given the potential for systemic side effects associated with corticosteroid use, and a lack of significant improvement in pain and activity, providers should consider limiting this therapy to meet the recommended interval of three months between intra and peri-articular injections.

Keywords: neuropsychiatric symptoms, corticosteroid injections, joint injections, trigger point injections, chronic pain

Team Leader: Dr. Andrea Collins