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MetroHealth Medical Center

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Abstract Submission Form

Poster Title: **Is there a Role for Diabetes Stewardship in Orthopaedics? Observations from a Hand and Upper Extremity Surgery Clinic**

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Category: **Clinical Research**

Introduction: Though generally safe, corticosteroid injections (CSI) have notable side effects including hyperglycemia. Despite this, point-of-care blood glucose (POC BG) testing prior to administration has not been described. Over the past four years, our hand and upper extremity surgery clinic has begun screening diabetic patients with a POC BG test prior to CSI. Patients with a POC BG greater than 150mg/dL were refused a CSI and referred to their medical provider for glucose management. We sought to understand the incidence of patients who presented with uncontrolled diabetes as well as rates of follow-up and medication adjustment with their medical provider.

Methods: 207 patients received POC BG testing in our tertiary referral hand and upper extremity surgery clinic between 2018 - 2022. Patient demographics, POC BG, hemoglobin A1C pre- and post-visit, medication regimen, and the timing and intervention by their medical provider were recorded.

Results: 81 (39.1%) patients had a POC BG greater than 150mg/dL (mean 236.4 ± 76.7mg/dL). 59 (72.8%) successfully followed up with their medical provider within 33.2 ± 38.0 days and 24 (40.7%) required a diabetes medication adjustment or addition. Two were referred to the emergency department for POC BG of 578 and 401mg/dL. One required a course of insulin, potassium, and intravenous fluids. Patients who successfully followed up for glucose management saw a decrease in hemoglobin A1C of 0.40 ± 1.37%, while those who did not increased 0.35 ± 1.35% ($p=0.037$) over 18 months following their pre-appointment value.

Discussion: The incidence of poorly controlled blood glucose in our community was high. However, the rate of diabetes follow-up was also surprisingly high and timely. This illustrates potential short- and long-term benefits of diabetic screening prior to CSI. These observations suggest that a short delay in patient satisfaction may result in more lasting changes in a patient's overall health.