Opiate Omission After Ureteroscopy Does Not Lead to Increased Emergency Department Visits: Results from a Statewide Quality Improvement Collaborative

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INTRODUCTION AND OBJECTIVE: Emergency department (ED) visits after ureteroscopy (URS) are common and are often due to postoperative pain. As a part of a statewide quality initiative to reduce ED visits, we sought to determine if opiate omission following URS is associated with unintended consequences, such as increased ED visits.

METHODS: The Michigan Urological Surgery Improvement Collaborative’s Reducing Operative Complications from Kidney Stones (MUSIC ROCKS) initiative was established in 2016. It is comprised of urologists across the state whose goal is to improve the care of patients with stone disease. We identified patients that underwent primary URS and examined quarterly trends in postoperative opiate prescription. Variation in opiate prescribing was assessed at the practice level. Using demographic, clinical, and operative data, we constructed a multivariable model to define risk factors for opiate prescription. After adjusting for patient and practice-level factors, we determined whether opiate omission was associated with postoperative ED visits within 30 days of surgery.

RESULTS: We identified 9,268 patients who underwent URS (2016-2019). Post-URS opiate prescriptions have shown an absolute decline of 43.4% since the inception of MUSIC ROCKS (Figure). There was wide variation in practice-level opiate use (8.8% to 98.7%, p<0.01). The odds of receiving an opiate were higher in males (OR 1.32, 95%CI 1.17-1.49, p<0.01), those with a stent (OR 1.72, 95%CI 1.49-1.99, p<0.01), or a diagnosis of chronic pain (OR 1.72, 95%CI 1.49-1.99, p=0.04). Those less likely to receive opioids were older (OR 0.99, 95%CI 0.98-0.99, p<0.01), had greater comorbidity (OR 0.82, 95%CI 0.69-0.98, p=0.03), and were prescribed an NSAID (OR 0.23, 95%CI 0.19-0.28, p<0.01). Omission of opiates following URS was not associated with increased ED visits (OR 0.83, 95%CI 0.67-1.04).

CONCLUSIONS: Since establishment of a statewide quality improvement program in Michigan, opiate prescriptions following URS have declined substantially without an increase in ED visits. Patient factors and practice variation contribute to the risk of receiving an opiate underscoring the need for continued efforts in this area.

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