

**Daily Ecological Momentary Assessments of Pain and Ability to Work after Ureteroscopy and Stenting**

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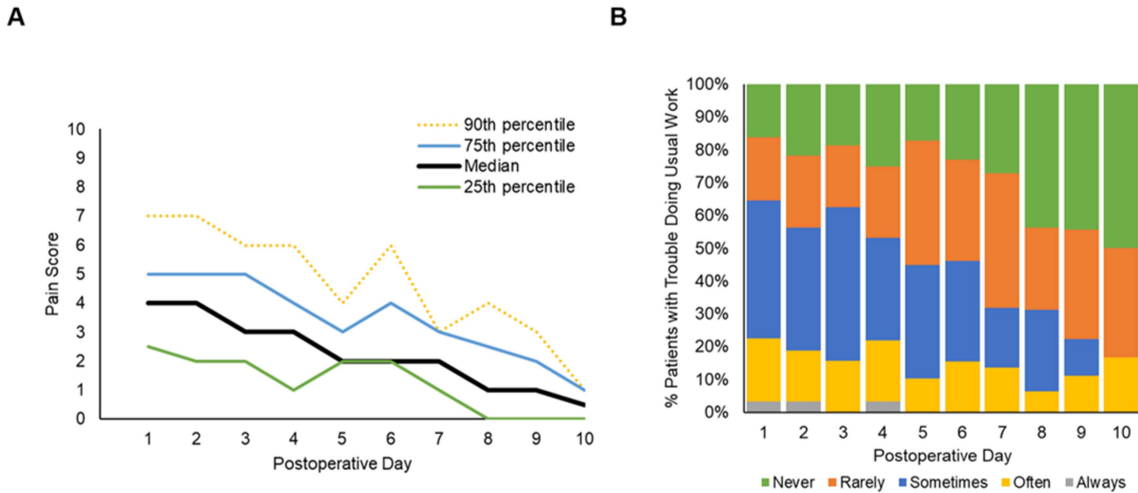
**INTRODUCTION AND OBJECTIVE:** Ureteral stents can cause significant patient discomfort, yet the temporal dynamics of symptoms and impact on social activities remain poorly characterized. We employed an automated text message tool to collect daily ecological momentary assessments (EMA) following ureteroscopy with stenting regarding pain and ability to work. Our aim was to assess the feasibility of capturing EMA data, and better characterize the postoperative patient experience.

**METHODS:** As an exploratory endpoint within an ongoing pragmatic clinical trial (NCT05026710), patients undergoing ureteroscopy and stone intervention with stenting (without a tether) were asked to complete daily EMAs for 10 days postoperatively, or until the stent was removed, whichever was longer. Stents were removed in the office. Questionnaires were distributed via text message and included a numeric pain scale (0-10) and a single item from the validated PROMIS Ability to Participate in Social Roles and Activities instrument, as well as days missed from work or school. Responses from postoperative day (POD) 1 through the day of stent removal (up to POD10) were analyzed for the first 35 participants in EMAs.

**RESULTS:** Median patient age was 56.1 years (IQR 46.6-62.8), 51% were female. Stones were 66% renal and 34% ureteric, with median stone diameter 8.5mm (IQR 6-10). Daily EMA response rates were >90% for all days through POD10. Median stent dwell time was 7 days (IQR 6-9). Pain scores were highest on POD1 (median score 4) and declined with each day, reaching median score 2 on POD5 (Figure, panel A). 65% of patients on POD1 reported they had trouble performing their usual work at least sometimes, but by POD5 this was <50% of patients (Figure, panel B). Patients who work or attend school reported a median of 1 day missed (IQR 0-3).

**CONCLUSIONS:** An automated daily text message EMA system for capturing patient reported outcomes was demonstrated to be feasible with sustained excellent response rates. Patients with stents reported the worst pain and interference with work on POD1 with steady improvements thereafter, and by POD5 the majority of patients had minimal pain or trouble performing their usual work.

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**Figure.** Daily ecological momentary assessments of (A) pain (scores 0-10), and (B) trouble with doing usual work (PROMIS Ability to Participate in Social Roles and Activities) in patients with ureteral stents in place following ureteroscopic stone treatment.