

Peer Review File

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Reviewer A

Comment 1: Background- P1 are you describing variations in prescribing patterns?

Reply 1: Yes. We clarified that by adding the sentence below, (see Page 3, lines 8-9).

Changes in the text: Over-prescription of opioid medications is common after urologic procedures and variation in opioid prescription patterns exists after these procedures nationally.

Comment 2: P2 - 3rd sentence does not appear to be a contradictory statement. Reference 11 recommends a min of 0 for all patients and agree 0 is appropriate for all patients.

Reply 2: We removed the contradictory sentences. As such that part of the paragraph will be written as follows, (see Page 3, lines 14-20)

Changes in the text: In addition, single-center experiences have shown the feasibility of a non-opioid approach after endourologic intervention for urolithiasis.(8-10) An expert panel from the US recently recommended 0-5 and 0-10 Oxycodone 5mg pills to patients undergoing ureteroscopy with lithotripsy without and with stent placement, respectively.(11) The European Association of Urology (EAU) recommends NSAIDS as the first-line treatment for post-ureteroscopy (URS) pain control, reserving opioids for refractory pain.(12)

Comment 3: Methods- How was the questionnaire developed. Were questions trialed? Altered? Reviewed?

Reply 3: The questionnaire was developed and reviewed by all the authors. We then pilot-tested the survey on a sample of 4 urologists from our urology division. We then finalized the survey based on their feedback. We clarified this in the methods as follows (see Page 4, lines 14-16).

Changes in the text: After developing and reviewing the survey by all the authors, we pilot-tested our survey on a sample of 4 urologists and finalized the 16 question survey based on that feedback.

Comment 4: Predictors and outcome variables - The main outcome does not account for the number of pills prescribed or if the patient was on prior narcotics. Why was preop use not included in the confounding variables?

Reply 4: Thank you for this great question. Our main outcome was routine opioid prescribing post ureteroscopy (more than 50% of the time) which indeed doesn't

account for the number of pills prescribed or if the patient was on prior narcotics. We did ask participants about patient factors that they think may lead to the need for opioids and two of the choices were patients with substance use disorder and history of needing opioids for previous ureteroscopy (table 3). However, we unfortunately didn't ask specifically about preop opioid use and what percentage of the time participants prescribe opioids in these specific cases. Instead we just asked in general what percentage of time opioids are prescribed post ureteroscopy. We added the following in the limitation section of the discussion (Page 12, lines 8-9)

Changes in the text: We did not account for number of opioid pills prescribed or if prescription patterns differ for participants if their patients were on prior narcotics.

Comment 5: Results- Were the adjunct medications that prescribers chose defined (ie tamsulosin, oxybutynin)?

Reply 5: Yes they were defined as (Alpha-blockers, Anti-cholinergic, Phenazopyridine), and we added that to the text as follows (see Page 7, line 3-5) and table 3.

Changes in the text: Of the measures felt to decrease opioid prescription, the majority of respondents chose NSAIDs use, adjunct medications (Alpha-blockers, Anti-cholinergic, Phenazopyridine), pre-op counseling and patient education.

Comment 6: Discussion- P1 - Is perception at international conferences anecdotal or literature based? Was a formal social media search performed?

Reply 6: It was anecdotal and we didn't perform a formal social media search. Thus, we decided to remove that part of the paragraph (see Page 8, line 7)

Comment 7: P2 - Median opioid use was 27%? I suppose this means too many pills are being prescribed?

Reply 7: Exactly.

Comment 8: P3 - Do you propose how to stop what appears to be a vicious cycle or people being prescribed because they were prescribed in the past?

Reply 8: Thank you for this really great point and we're glad to add a proposal to stop this cycle. We edited (Page 11, lines 5-11) to read as follows.

Changes in the text: Patients previously receiving opioids for URS may believe that opioids were "needed" in the past and therefore not receiving a prescription goes against the care that they need. For these patients, we feel that this is where education and expectation setting is paramount. While prior opioid use was not incorrect, patients will potentially be more accepting of alternative approaches to

pain control when the rationale is carefully explained. Additionally, the general awareness of the detrimental effects of opioids and the epidemic we are facing should lend further support and acceptance.

Comment 9: P4 - A recent report from Gridley et al from J endo (2020) discusses ERAS protocol and how lack of opioid prescribing did not increase need for subsequent narcotics or physician calls. Would be pertinent for this discussion.

Reply 9: Thank you for your great suggestion. We added a discussion about it and about updated results from our own study which is very similar and was presented at the last AUA virtual meeting (see Page 10, lines 7-17)

Changes in the text: Similarly, Sobel et al. retrospectively reviewed patients who underwent URS with an intention to avoid opioids whenever possible on discharge. A non-opioid approach was feasible in 75% of patients and those not receiving opioids did not make more phone calls to clinic for concerning symptoms, require more post-procedure pain medications, or visit the emergency department more frequently for pain.(9) The same group recently presented their updated results at the 2020 AUA annual meeting, which included 391 patients over a span of three years and the non-opioid approach was feasible in 91.3% of patients.(15) In addition, Gridley et al. recently implemented an Enhanced Recovery After Surgery (ERAS) protocol prospectively for patients undergoing URS. The rate of opioid prescription on discharge decreased from 93% to 0% and similarly there was no difference in postoperative calls for pain or in unscheduled encounters compared to patients discharged pre implementation of the their ERAS protocol.(16)

Reviewer B

Comment 1: The Authors present a very interesting study on opioid prescription after URS. Data were acquired by an unvalidated questionnaire but represent nevertheless an interesting overview on the topic. I see no need for changes.

Reply 1: Thank you very much.