

Can a Simple Phone Call Improve Post-Ureteroscopy Outcomes in Patients with Psychiatric Disease?

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What We Learned

Planned post-op phone calls to patients at high risk for ED return within 30 days of URS may improve outcomes by offering more efficient triaging solutions to low and high acuity problems.

Background and Objective

- Up to 16% of URS cases return to the ED within 30 days.
- Scheduled post-op phone calls may reduce unplanned care encounters following ureteroscopy (URS) (Tackitt 2016).
- Psychiatric disease (PD) is associated with ED return after URS (OR 1.57), and PD may be present in >40% of URS patients (Carlos 2019).
- We sought to evaluate whether standardized post-op RN phone calls targeted to PD patients could reduce 30-day ED returns after URS for kidney stones.

Methods

- All pts undergoing URS for stone from August 2018 to August 2019 were prospectively screened for PD.
- PD defined as anxiety, depression, bipolar, schizophrenia, or PTSD. Pts with chronic pain syndromes or active substance abuse were excluded.
- All PD pts received a planned urology triage RN phone call between POD 1-4. A standardized script was utilized.
- Data was then collected for 30 days post-op for PD and non-PD pts.
- Primary outcome of interest was 30-day post-op ED returns.
- Outcomes between PD and non-PD patients, as well as between this prospective cohort and our previously published retrospective URS series (n=1576) were compared.

Results

- 374 URS for stones in 360 unique pts were performed over the 1-year period.
- PD prevalence: 42.2% (44.3% in prior series)
- Phone contact success rate: 78%. Intervention rate: 20%.
- 10.8% ED return rate in PD pts (16.8% in prior series).
- Significantly higher proportion of ED returns in PD patients were for fever/infection (53% vs 15%, $p < 0.001$).
- Increased rate of admission for PD patients who did return to ED (52.9% vs. 36.8%, $p = 0.2$).

FIGURE 1: Reasons for ED Return after Stone URS in Patients with Psychiatric Disease With and Without Phone Call Intervention

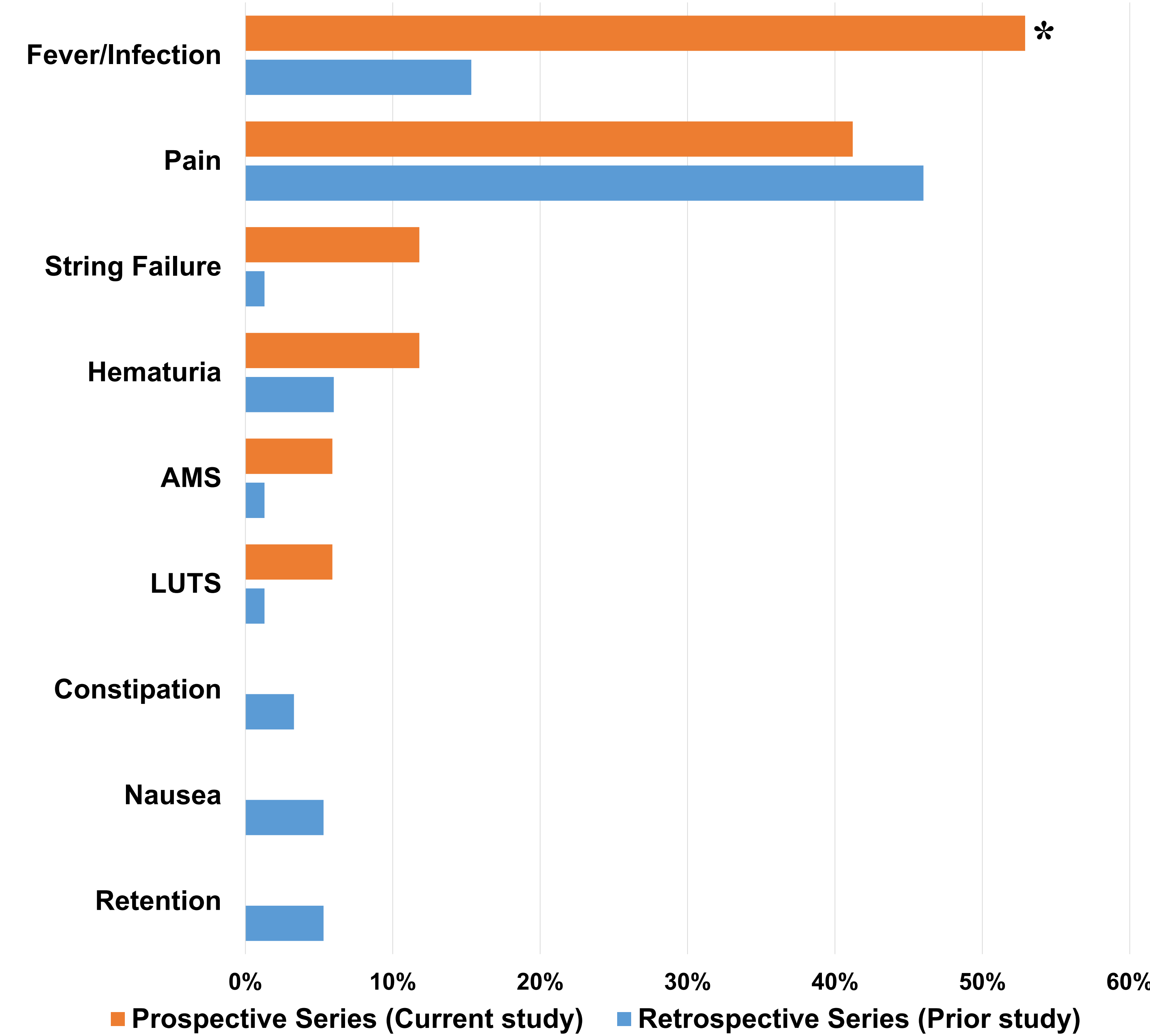


TABLE 1: Psychiatric Disease and ED Returns in the current prospective study compared to our prior retrospective study

Outcome	Retrospective Cohort	Prospective Cohort	p-value
Incidence of PD	44.3%	42.2%	0.4758
Rate of ED Return	14.5%	8.8%	0.0411
Rate of ED Return (PD)	16.8%	10.8%	0.0608
Rate of ED Return (non-PD)	9.3%	7.4%	0.3731
Rate of Admission for ED Returns (PD)	36.8%	52.9%	0.2
Rate of Admission for ED Returns (non-PD)	41.5%	18.8%	0.0364

Discussion

- The majority of PD patients were able to be successfully contacted by our urology triage RN via phone call within the first few days after surgery. The standard script covered questions about symptoms and medication use as well as re-education about expected symptoms.
- 20% (n=24) of these phone encounters resulted in outpatient interventions. Such interventions included moving up post-op appointment dates, ordering outpatient labs, refilling prescriptions, or reassurance.
- While a smaller proportion of PD patients presented to the ED post-operatively, those who did had a higher degree of acuity and were more likely to be admitted.
- Notably, this project was conducted concurrently with a larger-scale quality improvement project in which the perioperative pathway for *all* patients undergoing URS for stones was revised to include updated and standardized pre-op instructions and order sets.
- It is possible that the concurrent perioperative pathway changes also contributed to some of the changes that we observed between studies, although those effects would not have been limited strictly to PD or non-PD groups.

Conclusions

- PD patients were once again demonstrated to represent a large proportion of patients undergoing URS for stone, and they are at high risk for ED returns post-operatively.
- Though traditional thresholds of statistical significance were not reached, planned phone call interventions to these high-risk patients seems to have decreased the overall ED return rate and contributed to a phase shift in reasons for return from less acute to more acute.
- Planned post-operative phone calls to patients in high risk groups, such as those with PD, can help not only in the prevention of low-acuity ED returns but also in the early identification and appropriate triage of high-acuity ones.