

Failure to rescue? Ambulatory healthcare utilization after ureteroscopy for stone disease in a surgical collaborative

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INTRODUCTION AND OBJECTIVE: We assessed postoperative healthcare utilization after ureteroscopy (URS) for stones to determine how ambulatory encounters relate to unplanned care. Using Michigan Urological Surgery Improvement Collaborative (MUSIC) data we aimed to quantify and categorize the nature of ambulatory encounters and investigate emergency department (ED) visit prevention.

METHODS: Patients in 2019 undergoing URS by practices with ≥ 10 cases in the MUSIC clinical registry were stratified by outcome (ED, office and no visit). One patient from each strata per practice was randomly selected for chart review. Data elements and classification were defined a priori. Communication between the office and patient prior to unplanned visits was labeled an encounter. We examined the complaints, timing and office action taken per encounter. Encounter intensity was categorized as low, moderate or high based on nursing or physician decision-making and action needed.

RESULTS: In 2019 there were 4526 URS cases with a 30 day ED visit rate of 6.4% in MUSIC. 59 patients underwent chart review. Fig. 1 shows the number of encounters after URS and their relationship to unplanned care. 36 (61%) patients had some form of care after URS. 23 (39%) patients generated at least one encounter, with a total of 39 encounters. Mean time to first encounter was 3.7 and 11.9 days for stented and unstented patients, respectively. 15% of patients had an ED visit without a prior ambulatory encounter, while, 14% of patients had an ED visit despite ambulatory encounters. No patients required hospitalization. Nursing education was the most common office action (53%) (Table 1). Stented patients had more moderate/high intensity encounters (45.9%) compared to unstented patients (13.3%).

CONCLUSIONS: Ambulatory care utilization after URS poses a high burden on the healthcare system. Stented patients had higher intensity ambulatory encounters than unstented patients. Despite nursing or physician level input, some patients were unable to be rescued from a modifiable ED visit.

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Figure 1. Relationship of ambulatory patient encounters to unplanned healthcare visits after ureteroscopy for urinary stones.

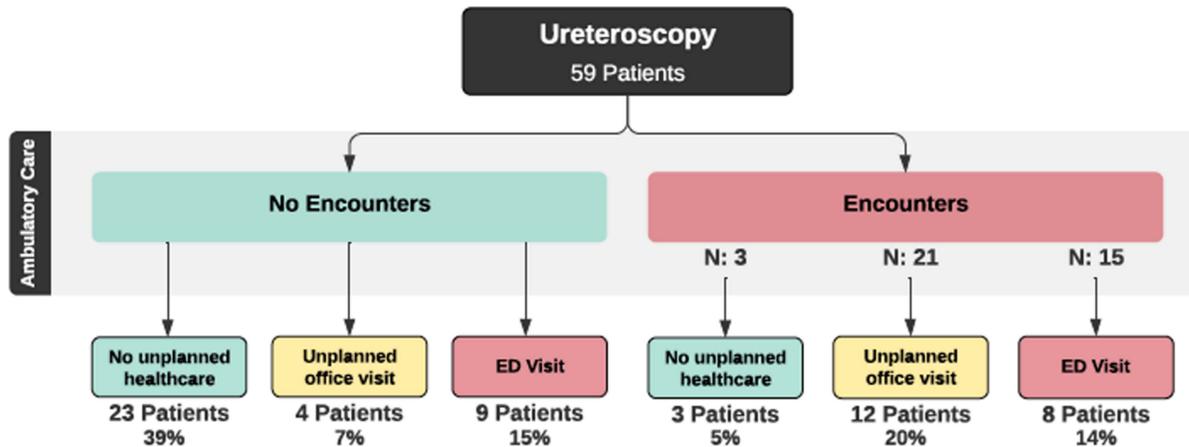


Table 1. Post-operative ambulatory patient encounters and their intensity after ureteroscopy for urinary stones.

	All Patients		Stented		Unstented	
Patients (N, %)	59		47	80%	12	20%
Encounters	39		24		15	
- Low intensity	26	67%	13	54%	13	87%
- Moderate intensity	7	18%	7	29%	0	-
- High intensity	6	15%	4	18%	2	13%
Total (%)		100%		100%		100%
Office Actions	45		28		17	
- Nursing education	24	53%	13	46%	11	65%
- Nursing intervention	3	8%	2	7%	1	6%
- Physician education	14	31%	10	36%	4	24%
- Physician intervention	4	9%	3	11%	1	6%
Total (%)		100%		100%		100%
Orders Placed	17		12		5	
- Pain medications	3	18%	2	17%	1	20%
- Antibiotics	3	18%	2	17%	1	20%
- Labs	5	30%	4	33%	1	20%
- Imaging	3	18%	2	17%	1	20%
- Flomax	2	12%	2	17%	0	-
- Anticholinergics	1	6%	0	-	1	20%
Total (%)		100%		100%		100%