NORTH YORK GENERAL

Making a World of Difference

Implementing and evaluating the efficacy of an Acute Care Urology model

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The Problem

After hours surgery is more costly and places greater burden on the patient, surgeon, and hospital

> 50% of stone surgeries were performed after hours

North York General Hospital

Toronto, Canada

120,000 annual visits

Toronto population is 2.7 million

Our Solution

Dedicated Acute Care Urology surgeon

Additional staff focused solely on ACU work

Rapid Referral Clinic

Daily clinic → ED patients seen within 48hrs

Dedicated Daytime OR blocks

Every Tuesday and Thursday

Adapted from ACS models used in:

General Surgery

Orthopedic Surgery

Plastic Surgery

Our Solution

Figure 1: Schematic of standard of care

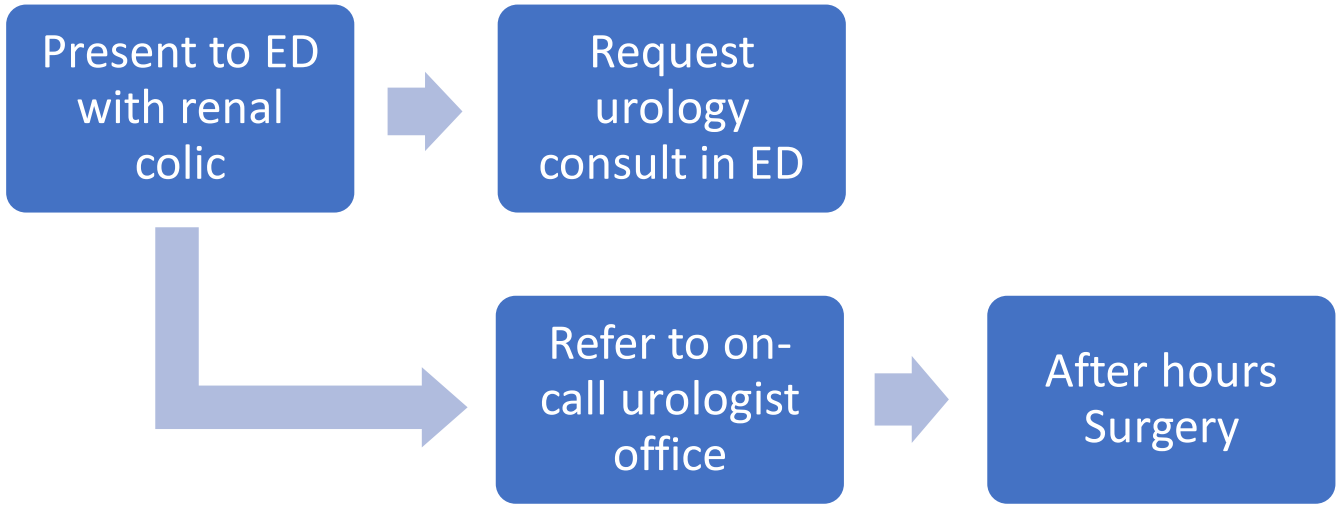
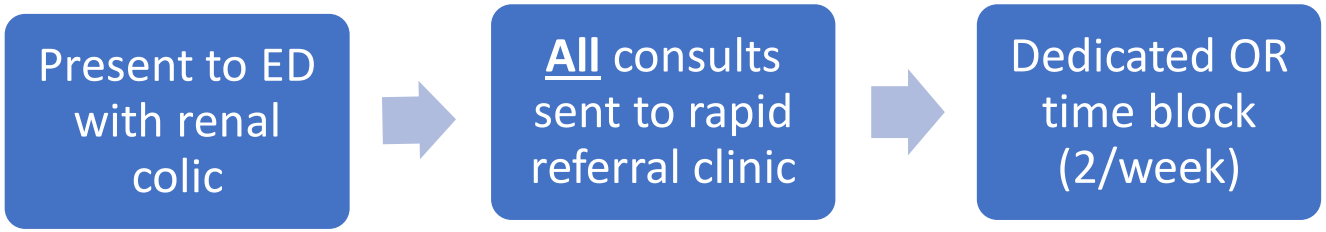


Figure 2: Schematic of ACU model



All patients are seen within 48 hours

Research Aim

To implement and evaluate an Acute Care Urology (ACU) model at a large Canadian community-based hospital

Methodology

Manual Chart Review:

579 patients presenting with renal colic to the Emergency Department (ED)

Pre-Intervention:
September – November 2015

n=290

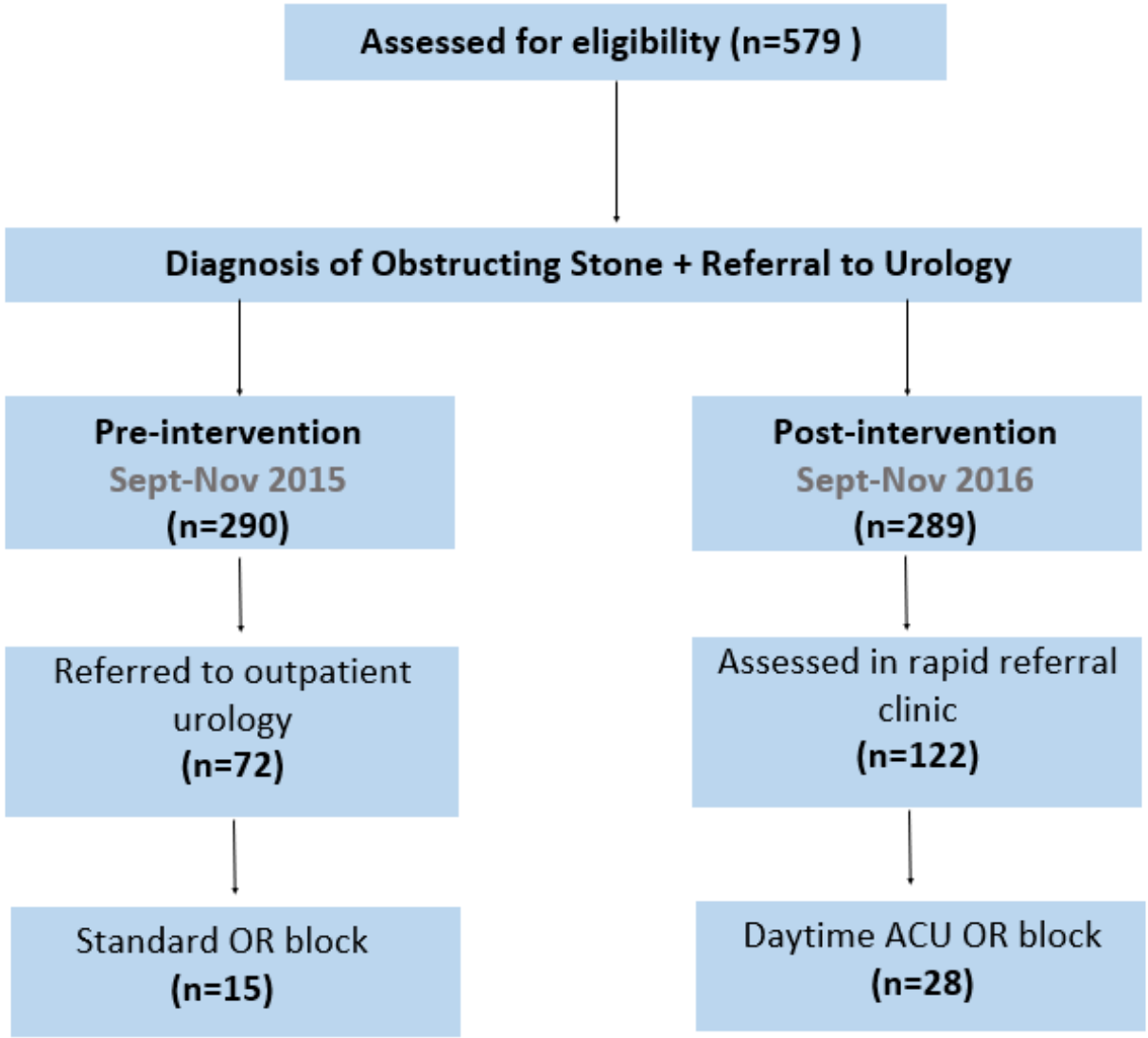
Post-Intervention:
September – November 2016

n=289

Patient & Provider Survey:

Patients, ED physicians, Urologists

Participants



Exclusion criteria:

No imaging performed

Non-urologic diagnosis

Non-stone diagnosis

No stone on imaging

Non-obstructing stone

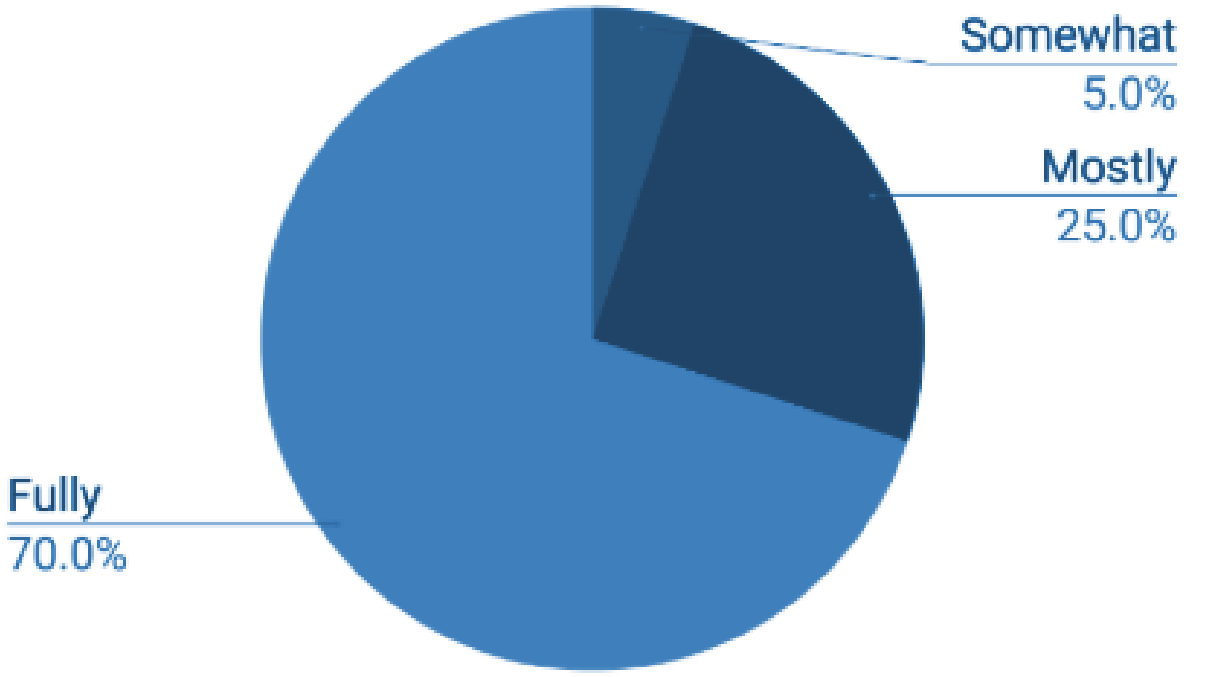
Passed stone in ED

Results

Performance Indicator	Pre-Intervention	Post-Intervention	p value
ED-to-Clinic time	15.8 days	4.2 days	<0.0001
% of patients referred to outpatient urology clinic	51.1%	70.5%	0.0004
% of patients who successfully obtained appointments	71%	87.3%	0.0055
ED wait-time	230.50 min	210.88 min	0.6000
% of after hours surgeries	51.0%	15.4%	0.0001

Results

Figure 5: Results of ED physician satisfaction survey (n=20)



Qualitative Feedback from ED:

"Great to know patients will have timely follow-up guaranteed"

"Streamlined the referral process"

"Timely access and ability to divert recurrent ED visits"

Comments from patient satisfaction surveys:

"No delay in seeing a urologist"

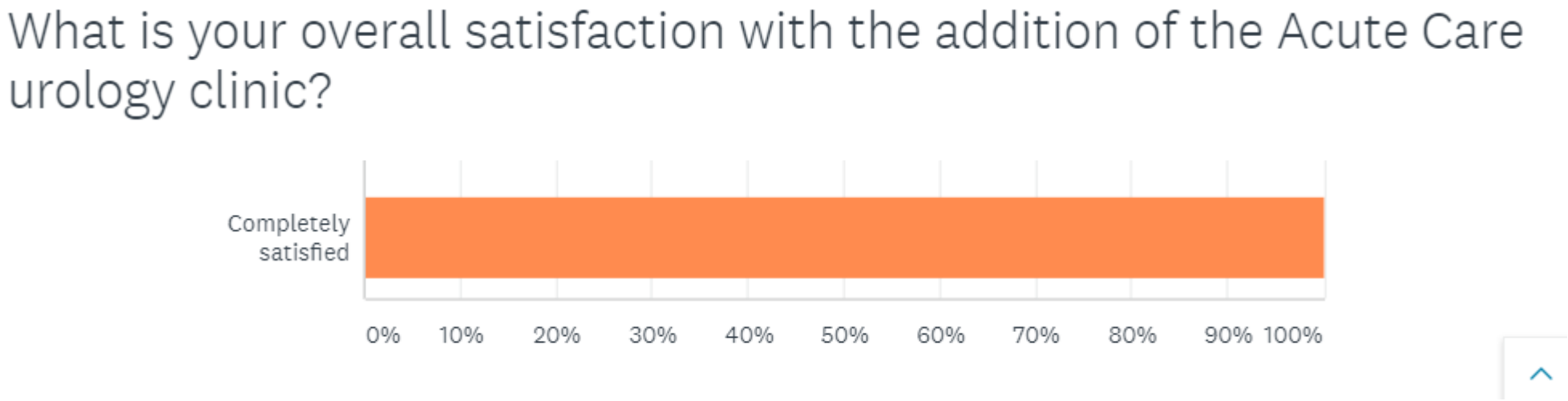
"Seamless care between areas of the hospital"

"The efforts to improve the delivery of services are making a noticeable difference"

Results

Survey Results from NYGH urologists (n=4)

- 100% were completely satisfied
- 100% believed patient outcomes have improved with implementation of the ACU model
- 100% believed that acute urology patients are operated on in a more timely fashion since implementation of ACU.



Considerations

- Urologists did not have to sacrifice OR time
- ACU clinic services diverse urgent ED referrals (i.e. hematuria, urinary retention), but does not affect care of acutely ill (i.e. septic stone presentation)
- No statistically significant difference between stone size pre- and post-intervention

Conclusions

- The number of after-hours and weekend surgeries significantly decreased
- The ACU model resulted in a lower ED-to-clinic wait time
- More patients were successfully referred for outpatient care and obtained appointments
- Both patients and providers were satisfied with the ACU model

Any Questions?