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PD23: A pilot study to investigate the use of video visits in reducing readmissions after major urologic surgery

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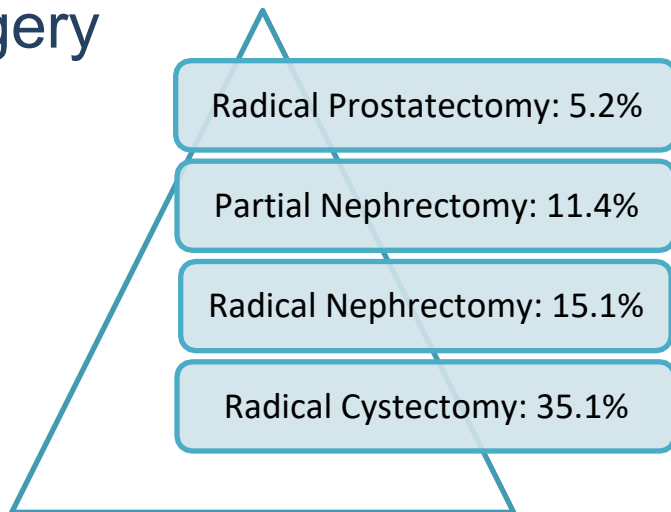


NewYork-Presbyterian



Background

- Hospital readmissions rates after major urologic surgery



Overall 90-day
readmission rate: 9.9%

Nayak, J. G., S. K. Holt, J. L. Wright, M. Mossanen, A. Dash, and J. L. Gore (2018). **The impact of readmission hospital on failure-to-rescue rates following major urologic cancer surgery.** *Urol Oncol*



Background

- **Use of Post-operative video visits in Urology**
 - Follow-up in post-prostatectomy patients (Viers, 2015)
 - Follow-up in post-surgical pediatric patients (Finkelstein, 2019 and 2020; Young, 2018; Canon 2014; Shivji 2011)
 - Pre and post-operative evaluation of patients in a VA (Park 2011; Chu 2015)
- **Question:** Can post-operative video visits reduce readmission rates?
- **Objectives**
 - Evaluate the feasibility of post operative video visits
 - Asses the impact in reducing 30-day readmissions

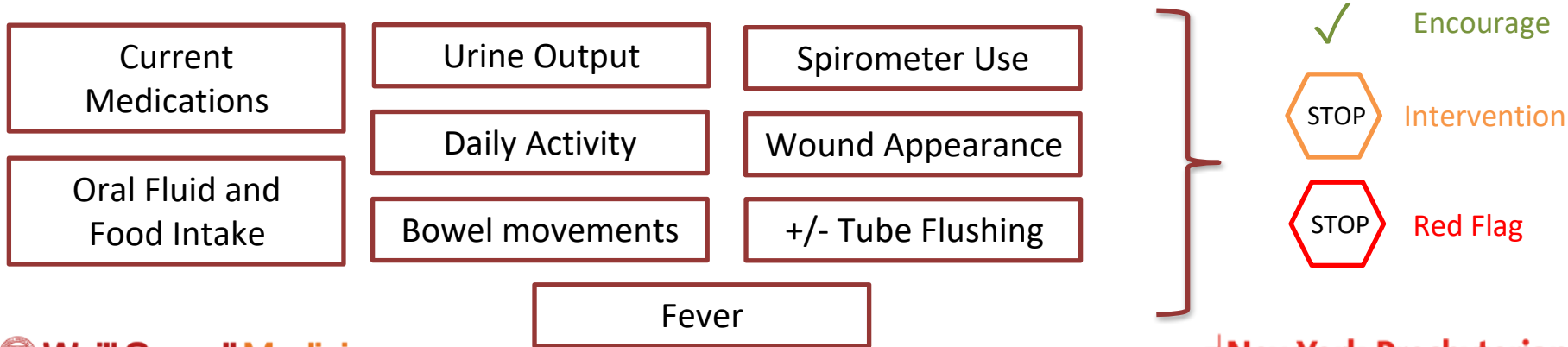
Castaneda and Ellimoottil (2019). Current use of telehealth in urology: a review. *World J Urol.*





Methods

- **Patient population**
 - Major urological surgery: overnight hospital stay
 - September 2018 to June 2019
 - Inclusion criteria: 18 years and older, English speakers, access to a smart phone
- **Intervention**
 - Script video visit every other day for 2 weeks after hospital discharge





Methods

- **Matched controls**

- Patients operated by same surgeon before the date video-visits started (January 2017 to August 2018)
- Matched by type of surgery (surgery, approach and concomitant surgery)

- **Outcomes**

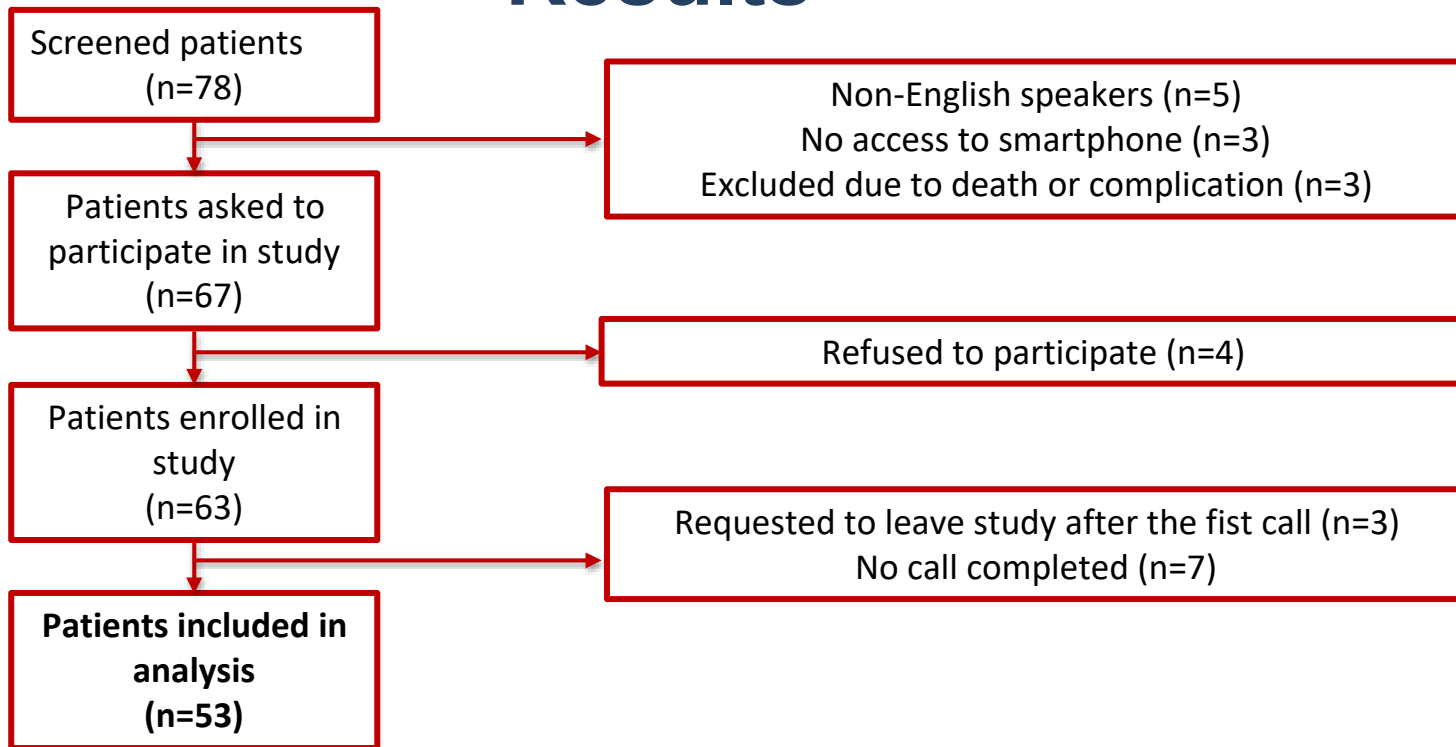
Primary: Rate of successfully enrolled patients, number of completed calls and patient adherence to the post-operative care plan

Secondary: Difference in 30-day readmission rate compared to matched controls.





Results





Results

	Video call patients (n=53)	Matched controls (n=53)	p-value
Median age, IQR	68 (58-73)	68 (60-74)	0.84
Male sex	41 (77.4%)	42 (79.2%)	1.00
ASA 3-4	30 (56.6%)	30 (61.2%)	0.78
Median Length of stay, IQR	5 (2-6)	3 (1-5)	0.11
Hospital complications (%)	21 (39.6%)	20 (37.7%)	1.00
Grades I-II	19 (35.8%)	19 (35.8%)	
Grades III-IV	2 (3.77%)	1 (1.9%)	
Surgery			0.62
RALP	11 (20.8%)	11 (20.8%)	
RARC	16 (30.2%)	18 (34.0%)	
Partial Cystectomy	2 (3.8%)	3 (5.7%)	
Nephrectomy/Ureterectomy	14 (26.4%)	16 (30.2%)	
RPLND	2 (3.8%)	1 (1.9%)	
Other	8 (15.1%)	4 (7.5%)	





Results

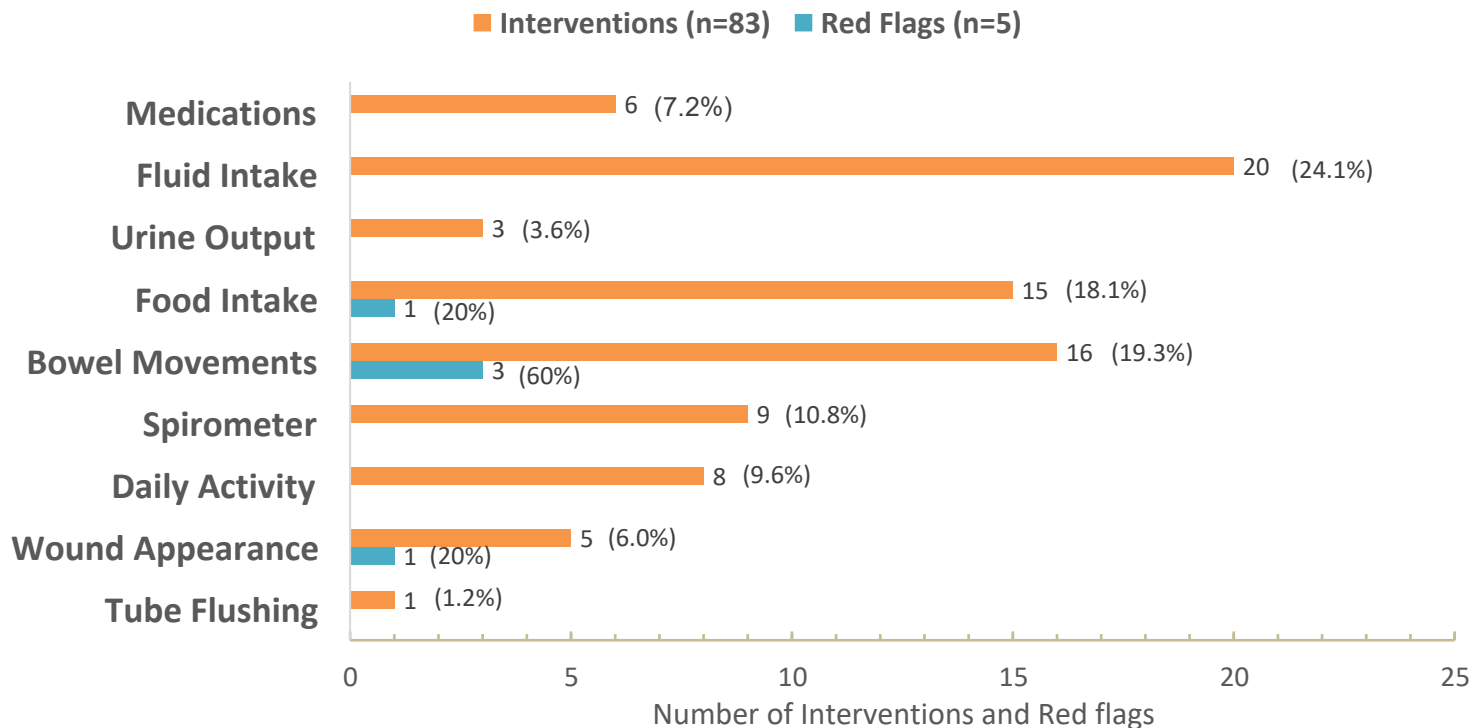
Primary Outcomes: Feasibility

- **Successfully enrolled patients**
 - Patients with at least one completed call
 - 53 out 78 screened patients: 68.0%
- **A total of 243 calls were completed to 53 post-operative patients**
 - Average of 4.6 calls per patient
 - Percentage of completed calls: 65.5%
- **Patient adherence to post-operative plan**
 - Oral input quantification: 73.3%
 - Urine output quantification: 67.1%





Reason for Intervention and Red Flags





Results

Secondary Outcomes: Readmission rates

	Video Call Patients	Matched Controls
RALP	1	2
RARC	5	7
Partial Cystectomy	0	1
Nephrectomy/Ureterectomy	2	2
Inguinal LND	0	1
Stoma revision	1	0
TOTAL	9 (17.0%)	13 (24.5%)



7.5% decrease
in 30-day
readmission
rate



Conclusions

- Post-operative video visits after major urological surgery are feasible with adequate patient adherence
- Video visits in post-operative patients seem to reduce 30-day readmissions
- Further large, randomized studies should assess the reduction in readmission rates post-discharge
- **Future directions:**
 - Incorporate an electronic questionnaire where certain questions will trigger a video visit
 - Assess patient and provider satisfaction

