



Fast in fast out – Sustaining the Grab and Go Cystoscopy Kit

Dr Teo Xin Ling, SSN Siti Fatimah, NC Song Kun, ANC Cynthia Ng, SSN Chen Yuan, SSN Yu Zihan, SSN Joan Seow, SN Angeline Teng, Dr Teo Jin Kiat

Singapore Healthcare Management 2024



Changi General Hospital
SingHealth

Project Background and Aims

- We introduced a grab and go cystoscopy kit since November 2021 to allow us to perform emergency flexible cystoscopy at the bedside instead of in the Emergency Operating Theatre or Urology clinic. This allowed us to demonstrate a significant reduction in waiting time for patients from an average of 90-180 minutes prior to introduction to 15-30 minutes after this introduction, translating to greater operator convenience, increased patient satisfaction and better clinical outcomes.
- This project was initiated with the aim of developing long term sustainability of this grab and go cystoscopy kit.

Problem and Methodology

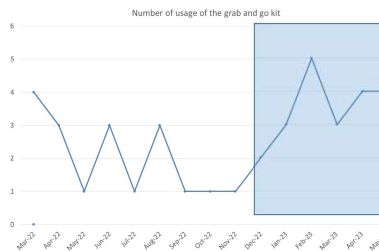
- With increased usage, issues with restocking, expiry dates of products and missed charging surfaced.

Interventions	Strategies to support intervention
Dedicated staff	A dedicated staff (Urology clinic Nurse Clinician (NC)) was assigned to the role of replenishing items after use. Weekly stock check was performed to all the equipment within the kit to ensure validity of items. All the items within the kit benefits from having long shelf lives of at least a few years.
Isolated tigertext group	An isolated tigertext group was set up for the purpose of easy tracing of usage of the disposable cystoscope. This group included all potential users within the department as well staff in charge of replenishing. Upon usage of the disposable scope, a photo of the charge form (which is to be handed to the ward staff) was taken and sent to this tigertext group. Thereafter, the Urology clinic NC will follow up in restocking items and ensuring that charging has been performed by the inpatient team.
Clear notice on the box holding the kit	A notice reminding users to hand the charge form to the inpatient ward teams was pasted onto the box (Fig 1)
Increased usability	The original intention for the kit was to house the disposable scope for easy portability. For added convenience, items that are rarely available in the ward which made be useful in difficult catheterization were also included in the bag. These items included a large bore IV cannula, angio kit, foley, silicon and 3-way catheters that are not readily available in the ward , 50ml syringe, sterile gloves and wet wipes. (Fig 2-4)
Waterproof box and dedicated storage space	The kit was placed in a waterproof sturdy plastic box within the Urology Clinic in a dedicated storage space and is made accessible only to staff. This prevents inadvertent damage or soilage to the equipment. (Fig 5-6)

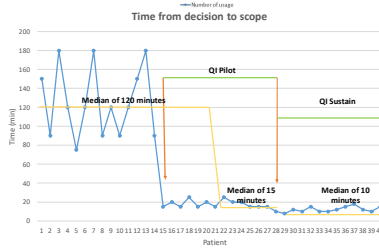


Clock wise starting from top left corner:
Fig 1: Reminder on storage box
Fig 2: New equipment added to kit
Fig 3: Equipment packed within bag
Fig 4: Easy portability of grab and go kit
Fig 5: Dedicated storage space
Fig 6: Dedicated storage box

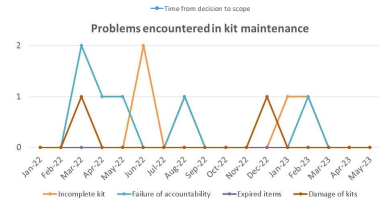
Results



Increasing utilisation:
Between June 2022 till May 2023, we utilised the kit 31 times, with increased usage noted since December 2022.



Time savings:
Waiting time cut to a range of between 8-15 min (median of 10 min), excluding 5 min of set up time at the bedside.



Maintenance of kit:
We encountered 5 occasions of incompleteness of kits, mostly at the start of this project.

Decrease infrastructure and manpower utility:

	Emergency flexible cystoscopy	Grab and go kit
Fetching to OT	Staff required: 1 porter and 1 staff nurse	Nil
Perioperative	(minimum staff within EOT only) 1 circulating staff nurse 1 scrub staff nurse 1 anaesthesia staff nurse 1 OT technician associate	Nil – no dedicated nursing staff required

Each case in EOT has a turnover time of at least 30 minutes to allow cleaning of the operating theatre, up to 2 hours for infectious patients including procedure time of a minimum of 30 min, **this frees up EOT utilisation for at least 1 hour.**

Patient cost savings estimation:

- Patient who has a flexible cystoscopy performed in the EOT is charged as **estimated bill size of \$1100 excluding ward charges.**
- A similar patient who has a bedside cystoscopy with the grab and go kit is charged **\$400** for the use of the scope.
- These charges excludes consumable charges which is equivalent in both scenarios.

Conclusion

While it may be difficult to scale up our utilisation due to clinical indications, the presence of this kit has expanded a Urologist's armamentarium during catheterisation and clinical practice. As such, this disposable cystoscopy kit is here to stay.