EFFICIENCY AND USER SATISFACTION OF SINGLE-USE VS. REUSABLE CYSTOSCOPES IN A HIGH-VOLUME UROLOGY CLINIC

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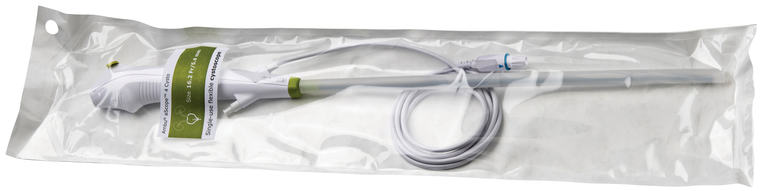

INTRODUCTION AND OBJECTIVE:

Cystoscopy is the most common procedure performed by urologists in clinic. Improvements in efficiency are essential for the delivery of high-quality patient care. Single-use cystoscopes have emerged as an alternative to reusable cystoscopes with the potential for in-clinic time savings and reduction of cross-contamination.

Primary Objective: To evaluate the differences in efficiencies between single-use versus reusable cystoscopes

Secondary Objective: To evaluate user satisfaction for both single-use and reusable cystoscopes

METHODS

- Outpatient cystoscopies at a high-volume clinic were randomized into single-use or reusable cystoscopy
- Time stamps were recorded starting from set up to in-room cleanup for 60 single-use and 55 reusable cystoscopies and compared
- A survey was conducted among providers, nurses, and medical assistants who routinely perform or assist in outpatient cystoscopy to assess utility and satisfaction of both cystoscopes
- Participants were asked to rank both cystoscopes on a 5-point Likert scale (1 = very poor, 5 = excellent) regarding efficiency, performance, and overall satisfaction.

RESULTS

When compared to reusable cystoscopes, single-use cystoscopes were associated with significant reductions in time spent on the following:

- pre-patient setup (5:47 vs. 6:50 min, p=0.03)
- time providers spent in room (7:29 vs. 9:25 min, p=0.02)
- time spent on in-room clean up (3:44 vs. 10:02; p<0.005)

Procedure time was not significantly different between the two groups (please see table below):

Time breakdown for single-use vs. reusable cystoscopes

	Set Up	Provider in Room	Procedure Time	Cleanup	Handling Time
Single-Use	5:47	7:29	3:42	3:44	13:14
Reusable	6:50	9:25	4:01	10:02	20:53
Difference	1:03	1:57	0:19	6:17	7:40
p-value	0.03	0.02	0.55	<0.005	<0.005

When examining total handling time (setup, procedure, and clean up), **single-use cystoscopes saved 7:40 min in staff time when compared to reusable cystoscopes (P<0.005).**

	Clinic Flow	Ease of Learning	Ease and Efficiency of Setup	Ease and Efficiency of Cleaning, Storage, & Disposal	Safety from Clinical/ Infectious Exposure	Overall Experience
Average for Reusable Scopes	3.3	3.8	3.8	3.5	3	3
Average for Single-Use Scopes	5	5	5	5	5	5

While nurses/medical assistants **rated the single-use scope 5/5 and reusable scopes 3.8/5 or below** across all qualities assessed, physicians also rated the scopes across similar metrics and **rated the single-use scope a 5/5 across each measurement, while reusable scopes were rated a 2.8/5 or below** for similar metrics including clinic flow (2.8), ease of use (2.8), reliability in performance (2.4), image quality (2.8), use for training (2.0), and overall experience (2.8).

Single-use cystoscopes significantly reduced hands-on labor, time required for cystoscope preparation, and breakdown compared to reusable cystoscopes.

CONCLUSION

Single-use cystoscopes can increase efficiency in the clinic in addition to time saved for reprocessing and transport.

Additionally, single-use cystoscopes are preferred over reusable cystoscopes by physicians and staff involved in outpatient cystoscopy, and overall satisfaction and perception of benefit to clinic flow is high.

Further investigations into cost and sustainability can help clarify the role of single-use cystoscopy when efficiency is of priority.