

# THE STATE OF SINGLE-USE ENDOSCOPES IN UROLOGY IN THE UNITED STATES

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## INTRODUCTION & OBJECTIVES

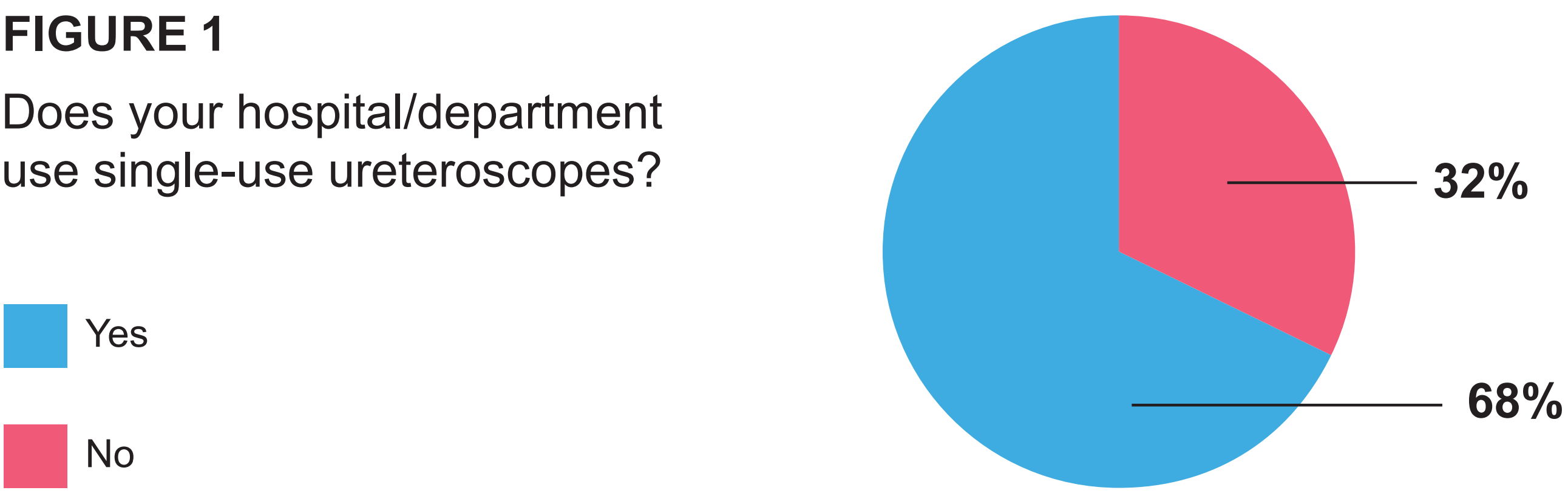
Within the field of urology, the first single-use ureteroscope was introduced in 2011 and has expanded with multiple new scopes on the market. This study aimed to identify the single-use ureteroscope usage rate in the U.S. and the drivers and barriers of single-use adoption today.

## MATERIALS & METHODS

- To evaluate the current single-use ureteroscope usage and adoption drivers, a total of 38 physicians were surveyed in the United States across different care settings.
- Respondents indicated their current clinical setting including academic medical centers (n=11), community hospitals (n=21), and ambulatory surgery centers or outpatient clinics (n=6).
- Results were analyzed and the percent of single-use users was calculated, along with the top reasons for adoption drivers and barriers.

## RESULTS

**FIGURE 1**  
Does your hospital/department use single-use ureteroscopes?



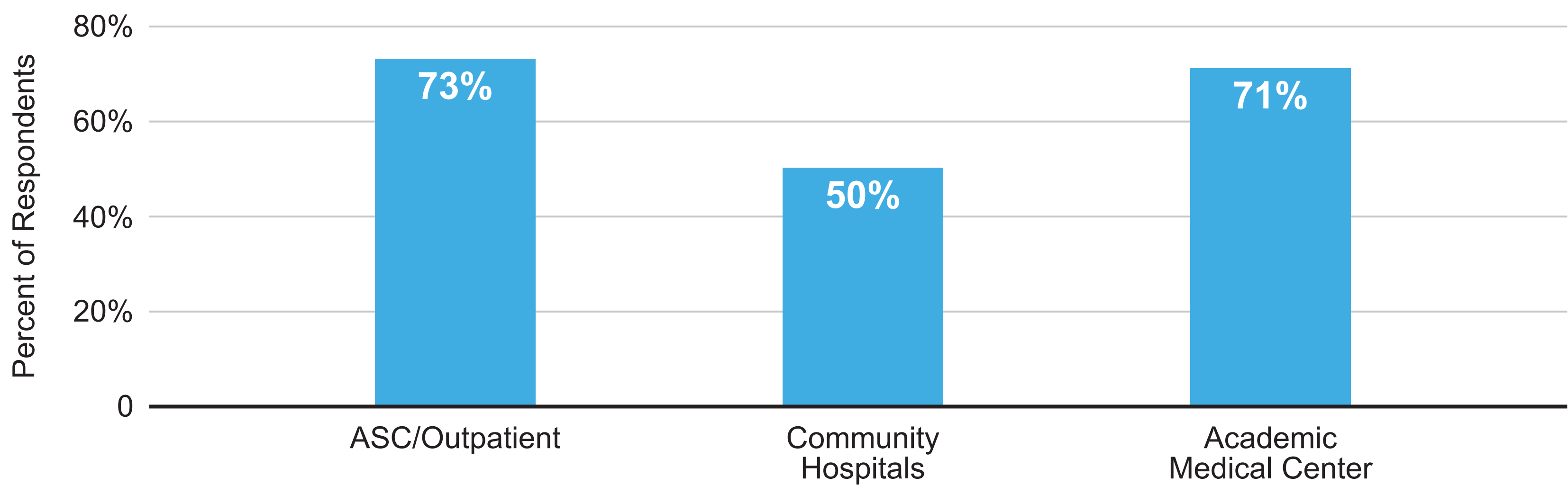
**Figure 1 shows that a majority of respondents currently utilize single-use ureteroscopes in their current practice, to some degree (either in-full or in a hybrid use).**

**Figure 2 demonstrates the use of single-use across care settings, with each setting having at least half of respondents utilizing single-use ureteroscopes.**

**The top 3 drivers of single-use adoption identified by respondents were reported as:**

- generally more cost-efficient than reusable flexible ureteroscopes
- perform more procedures in a given day when all reusable flexible ureteroscopes are unavailable due to reprocessing
- reduce repair costs

**FIGURE 2**  
Percent of Respondents Utilizing Single-use



**The top 3 barriers to single-use adoption identified by respondents were reported as:**

- too costly compared to reusable ureteroscopes
- inferior performance of single-use ureteroscopes
- environmental impact coming from single-use ureteroscopes.

## DISCUSSION

Single-use ureteroscopes have been available on the market for more than 7 years, providing an alternative to traditional reusable ureteroscopes, removing the need for reprocessing of the scope between patient use and avoiding ureteroscope availability concerns due to broken or damaged scopes. Recent evidence has shown urologists prefer to use single-use ureteroscopes for specific types of cases including complex patient anatomy, compact stones and lower pole stones<sup>1</sup>. Additionally, research has shown that reusable ureteroscopes can require a repair every 15 ureteroscopies<sup>2</sup>, leading to limited equipment for urologists to perform their procedures. Respondents of the survey indicated that reducing the cost of scope repairs and increasing procedure volume were drivers of single-use adoption, while simultaneously indicating that the barriers to utilizing single-use included being too expensive, with inferior scope performance. Given the variance in costs and perception across clinical settings, facilities should evaluate all cost components, physician preferences and overall scope performance across all available ureteroscopes on the market in order to provide their urology staff with the optimal ureteroscopy equipment and ultimately, optimal patient care.

## CONCLUSION

Single-use ureteroscopes are widely adopted endoscopes across different care settings in the U.S. today. The cost of utilizing single-use ureteroscopes was identified as both a driver and barrier of adoption. These findings signal the need for further assessment of the financial implications of single-use ureteroscopes across care settings and the evaluation of scopes as single-use endoscopes continue to evolve and improve.

**REFERENCES**  
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2. Rindorf DK, Taillly T, Kamphuis GM, et al. Repair Rate and Associated Costs of Reusable Flexible Ureteroscopes: A Systematic Review and Meta-analysis. Eur Urol Open Sci. 2022;37:64-72. Published 2022 Jan 29. doi:10.1016/j.euros.2021.12.013