COMPARATIVE PERFORMANCE OF REUSABLE AND SINGLE-USE THERAPEUTIC GASTROSCOPES

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INTRODUCTION

In June of 2024, the first single-use therapeutic gastroscope (SUTG) (4.2mm working channel) was brought to market. Given its increased working channel size versus most other therapeutic gastroscopes (3.7mm), this SUTG has the potential to provide increased suctioning abilities to help facilitate the evacuation of fluids from the upper gastrointestinal tract, maximizing patient safety. To evaluate how this new single-use scope compares to the current standard of care, a survey was conducted of individuals who completed procedures with both reusable and single-use therapeutic gastroscopes.

METHODS

- 10 gastroenterologists completed 32 procedures with the Ambu aScope Gastro Large.
- After the completion of each procedure, physicians were asked to complete a 7-question survey comparing the aScope Gastro Large to the reusable therapeutic gastroscope they regularly use.
- Both the aScope Gastro Large and the reusable therapeutic gastroscope were rated on a Likert scale of 1 – 5 (1 = much worse, 3 = similar to, and 5 = much better).
- Data was collected from April to June 2024.

RESULTS

- The SUTG was **rated higher than the reusable therapeutic gastroscope in 6 of the 7 variables** measured and **significantly higher in 5 of the 7.**
- The highest rated variable was the **ability to suction with a tool inserted (4.3/5).**
- See Table 1 for complete results.

Table 1. Ambu single-use therapeutic gastroscope vs. reusable therapeutic gastroscope comparison

Metric	Average Rating Compared to a Reusable Therapeutic Gastroscope 1=Much Worse, 2=Worse, 3=Similar, 4=Better, 5=Much Better	Significance
Overall Satisfaction	**3.70**	**0.045**
Ability to suction (without tools inserted)	**4.10**	**0.001**
Ability to suction (with tools inserted)	**4.30**	**0.000**
Maximum retroflexion	**4.11**	**0.001**
Angulation with tools inserted	**4.00**	**0.000**
Overall Image Quality	2.90	0.726
Scope Ergonomics	3.40	0.168

DISCUSSION

- The results suggest that the Ambu aScope Gastro Large may have certain advantages over reusable therapeutic gastroscopes such as superior suctioning and articulation.
- **The high suction performance scores suggest that physicians may be able to effectively treat patients with certain conditions such as heavy bleeds more effectively.**
- Physicians should feel confident in the capabilities of the aScope Gastro Large to treat patients.

CONCLUSION

This survey shows that the aScope Gastro Large rated significantly higher than reusables in a majority of the categories measured. For the two categories that the SUTG did not score significantly higher, comparable ratings were reported and should be studied further. These results demonstrate that **SUTGs are a viable and highly rated alternative to reusable therapeutic gastroscopes.**