Video-Based Assessment of Robotic Bedside Assistant Performance

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Background

Adoption



Requires a collaborative effort among surgical teams

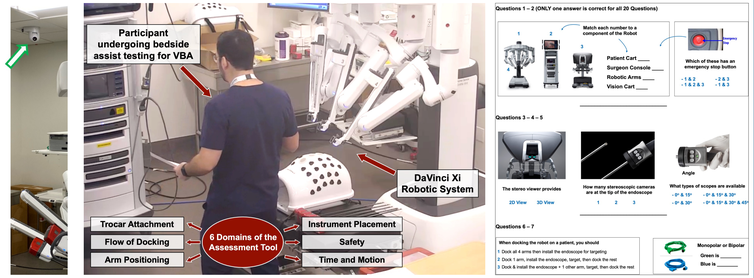




Bedside assistant has an increasingly autonomous role → critical aspects of operation → affects patient outcomes

Materials and Methods

Trainees were asked to dock the robot before and after a 2-hour training session on bedside assisting (**recorded for video-based assessment**) + **objective MCQ test**



Results

20 General Surgery Interns (2022-2023)

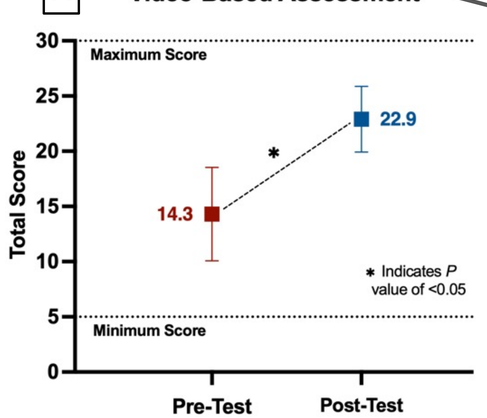


Baseline skill assessment

Post-test after 2-hr course

* **Indicates *P* value <0.05**

A **Video-Based Assessment**



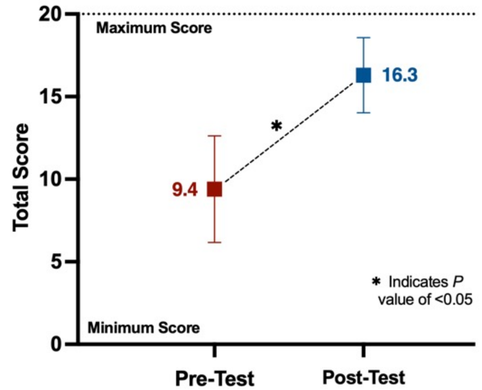
Domains

- Trocar Attachment
- Flow of Docking
- Arm Positioning
- Instrument Placement / Replacement
- Safety
- Time and Motion

Video-based assesment score
Increased by an average of 60%



B **Knowledge Based Objective Assessment**



MCQ score on a 20-point test
Increased by an average of 77%



Conclusion



Bedside assist course significantly improved theoretical knowledge and practical skills of surgical interns

This study reports the initial validity of a novel **Video-Based Assessment tool** to evaluate bedside assist performance.

