MAYO CLINIC

Evaluation of Video Simulated Emergent Anesthesia Scenarios

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INTRODUCTION

- Simulation is a tool that allows individuals to practice new and current guidelines, allowing for errors to occur without fatal mistakes
- Simulation influences skill, safety, techniques, and technology.
- Simulation and technology advances allow anesthesia to view video-simulated emergent anesthesia scenarios to prevent deadly mistakes in high risk/low-volume scenarios (HRLV)
- Deemed Quality Improvement via IRB
- PICO: Within the anesthesia staff, physician anesthesiologists and CRNAs (P) at a mid-western tertiary surgical facility, do video simulations (I) of emergent anesthesia scenarios improve provider knowledge (O) and confidence compared to not viewing the educational content?
- A secondary aim of this project was determined to see if this learning format is the preferred method by anesthesia staff

METHODS

Two emergent anesthesia scenarios were chosen for this video simulation, which were post-operative bleeding tonsil and airway fire. This quality improvement project consisted of a pre-and post-video survey, the intervention of viewing both video simulations, and *N* = 18. A 5-point Likert scale and paired t-test were used to analyze the data.

RESULTS

- 18 providers completed entirety
- Mean pre-survey score= 89.2%
- Mean post-survey= 93.8%
- *p*-value= .007
- Secondary aim – 10 out of 18 “yes” and 8 “no”

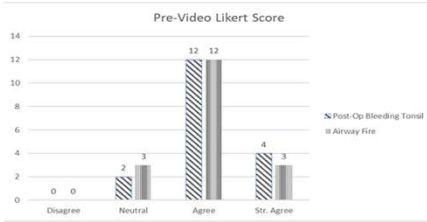
Airway Fire Video

SCAN ME

Post-operative Bleeding Tonsil Video

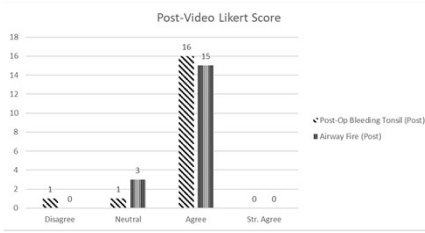
SCAN ME

PROVIDER CONFIDENCE PRE-VIDEO



Did provider’s confidence increase managing each scenario after viewing video simulations for airway fire and post-operative bleeding tonsils. Results were recorded by provider’s own self-reflection using the 5-point Likert scale. *N* = 18

PROVIDER CONFIDENCE POST-VIDEO



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DISCUSSION

- Limitations – Communication, participation, and self-reporting of confidence
- Strengths – Length of videos under 5min, cost-effective, and independence.

FUTURE DIRECTIONS

- Project is sustainable for further endeavors
- Expand to other possibilities - Professional use of facilities AV, larger scaled simulation center, and bringing video simulation to engage more providers

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