

Determining Feasibility of Using Video-capture and Blinded Observer Evaluation to Measure Technical Proficiency in the Credentialing of Surgeons.

Alexander Podlaski

USF MCOM- LVHN Campus, alexander.podlaski@lvhn.org

Follow this and additional works at: <http://scholarlyworks.lvhn.org/select-program>



Part of the [Medical Education Commons](#)

Published In/Presented At

Podlaski, A. (2017, March). *Determining Feasibility of Using Video-capture and Blinded Observer Evaluation to Measure Technical Proficiency in the Credentialing of Surgeons*. Poster Presented at: 2017 SELECT Capstone Posters and Presentations Day. Kasych Family Pavilion, Lehigh Valley Health Network, Allentown, PA.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Determining Feasibility of Using Video-capture and Blinded Observer Evaluation to Measure Technical Proficiency in the Credentialing of Surgeons

Alexander Podlaski

Lehigh Valley Health Network, Allentown, PA

Introduction

Post-operative complications in patients can be grouped into two categories: preventable and non-preventable. A surgeon's technical skill and proficiency has been inversely correlated with frequency of preventable post-operative complications; as the measured technical skill of surgeons increases, the rate of complications decreases. Traditionally, a resident surgeon's operating skills have been evaluated using measures such as point-of-care feedback and simulations. Recently, a third method of direct feedback has become more prevalent in which operative cases are recorded using video cameras. Afterwards, a blinded evaluator scores the technical skills of the resident using a standardized rubric at a remote location. Ideally, this permits for more evaluations of the surgeon to be completed. Additionally, it allows the learners to review their own operating techniques with notation and self-analysis.

Problem Statement

The goal of this project was to determine the feasibility of using direct video capture with remote review as a method for measuring competency and technical skill among surgical residents who are seeking certification in Obstetrics and Gynecology at LVHN by comparing OPRS scores created remotely with those created at the point of care within a six month period.

Methodology

Video-capture technology was used to record resident surgeons performing laparoscopic bilateral tubal ligations and salpingectomies. Attending physicians who were present in the room scored the residents on their technical skills and performance immediately after the procedure using a standardized operative procedure rating system (OPRS). At a later time, another attending physician with equal credentials performed a parallel evaluation of the resident's technical performance using the captured-video. A statistical analysis was done to determine if the two methods of evaluation are equal to a statistically significant degree using a chi-squared test. This project was a piloted study, being as only three cases could be filmed and evaluated.

Results

Three cases of resident-performed operative tubal ligation and salpingectomy were filmed with a subsequent point-of-care evaluation done by the attending physician. The remote evaluation by another attending physician has not been performed as of yet. The statistical analysis has also not been performed yet.



Conclusions and Future Implications

In conclusion, it was feasible to record operative cases using video-capture technology. However the number of cases recorded was lower than anticipated. A conclusion regarding the similarity of the remote evaluators' scores to the point-of-care evaluators' scores has not currently been reached due to the fact that data collection and analysis have not yet been completed.



© 2017 Lehigh Valley Health Network