

# ISQua 2016 Abstract Submission

## External Evaluation Systems

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### MANUAL CLEANING OF ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY ENDOSCOPES USING REMOTE VIDEO AUDITING

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**Preferred presentation method:** 15 min oral presentation

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**I confirm that the submission has been approved by all authors:** Yes

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**What year was the study conducted?:** 2015

**Objectives:** The Society of Gastroenterology Nurses and Associates (SGNA) outlines practice standards for manual cleaning of endoscopic retrograde cholangiopancreatography endoscopes before being placed into a *automated endoscope reprocessors* (AER) between patients to prevent the transmission of pathogens.<sup>1</sup> Even though there are detailed guidelines for reprocessing endoscopes there have been multiple reports of patients acquiring Carbapenem-Resistant Enterobacteriaceae (CRE) following an endoscopic retrograde cholangiopancreatography (ERCP).<sup>2</sup> Since pathogen transmission can be related to improper cleaning of the endoscope between patients this initiative was designed to assess adherence to the multi-step process for manual cleaning of ERCP endoscopes with the use of remote video auditing (RVA).

**Methods:** In October 2015 the leadership at a 252-bed community hospital committed to ensuring adherence to the ERCP endoscope manual cleaning steps as outlined by SGNA and the manufacturer. Cameras were placed within the endoscope reprocessing area with a live feed to a digital video recorder that was accessed by a third party auditing company, Arrowsight Inc. The recorded activity provided the auditors with a complete view of the sinks utilized to manually clean the endoscopes prior to being placed into the AER. Trained auditors from Arrowsight, located external to the facility viewed streaming video of the activity in the reprocessing room. Once the auditors observed an ERCP endoscope entering the room and pre-cleaning was started by the health care worker (HCW), their compliance with each item on the checklist, as well as the total duration of cleaning was recorded. Video auditors assigned a Pass to each item on the checklist when the HCW completed each task and the amount of time spent to complete the entire checklist was recorded. Conversely auditors indicated a Fail when a HCW missed tasks on the checklist.

**Results:** The forty-one item manual cleaning checklist and compliance with the pre-cleaning can be viewed and scored with the use of RVA.

**Conclusion:** ERCP endoscope cleaning is a complicated process with multiple steps. The use of RVA provides a tool for gathering objective data on a process that can be analyzed and used to guide interventions. The same methodology can also be used to assess ongoing improvements and/or sustained activity. RVA has reported success with HCW compliance with hand hygiene and terminal cleaning of an operative room at the end of each day of use<sup>3</sup>. RVA and ERCP endoscope pre-cleaning has the potential for reproducing similar outcomes.

**References:** 1. Society of Gastroenterology Nurses and Associates, Inc. Standards of Infection Control in Reprocessing of Flexible Gastrointestinal Endoscopes.

2. U.S. Food and Drug Administration. Endoscopic Retrograde Cholangiopancreatography (ERCP) Duodenoscopes: FDA Safety Communication - Design May Impede Effective Cleaning, 2015.

3. Armellino D, Hussain E, Schilling ME, *et al.* Using High-Technology to Enforce Low-Technology Safety Measures: The Use of Third-party Remote Video Auditing and Real-time Feedback in Healthcare. *Clin Infect Dis.* 2012 Jan;54(1):1-7.

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**Disclosure of Interest:** None Declared

**Keywords:** Endoscope reprocessing, Endoscopic Retrograde Cholangiopancreatography Endoscopes , Infection prevention