Reprocessing effectiveness for gastroscopes and colonoscopes: Longitudinal comparison of two methods

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1. Introduction

- Outbreaks have been linked to contaminated gastroscopes and colonoscopes.
- Investigators have identified endoscope defects during outbreaks.
- Study conducted to determine:
  - How much damage and debris accumulate over time?
  - Is it possible to get old endoscopes clean?
- What is the effect of more rigorous reprocessing methods?

2. Methods

- Longitudinal study conducted over 7 months
- Standard reprocessing (control) compared with more rigorous methods
- Baseline and interim data collection included:
  - Observation of reprocessing
  - ATP tests and cultures after cleaning and after HLD
  - Borescope examinations of channels

3. Results

- Baseline:
  - Manual cleaning and HLD commonly ineffective
  - Visible irregularities and residual fluid identified (Figures 1, 2)
  - 1% of colonoscope encounters (n=304)
  - 52% of gastroscope encounters (n=143) (Figure 5)

- Interim:
  - Observation of reprocessing
  - Reduced discoloration in intervention group (Figures 3, 4)
  - Positive cultures post-HLD
  - Interim results by group:
    - Post-cleaning ATP ≥ 200 RLU
      - Control: 29% (N=17), Intervention: 37% (N=19)
      - Post-cleaning ATP ≥ 200 RLU
    - Highest post-cleaning ATP (RLU)
      - Control: 841 RLU, Intervention: 2518 RLU
    - Positive cultures post-HLD
      - Control: 47% (N=30), Intervention: 58% (N=32)
    - Number sent for repair*
      - Control: 2 (N=10), Intervention: 4 (N=11)

4. Summary

- Borescope examinations identified six endoscopes requiring repair
- Routine ATP tests detected endoscopes needing re-cleaning before HLD
- More rigorous reprocessing methods reduced discoloration

References


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3. Results

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