

Are single-use duodenoscopes going to be the future in the USA? A survey-based investigation

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Introduction

Contaminated duodenoscopes have been a key topic for the past years. In August 2019, the US Food & Drug Administration (FDA) publicly recommended that healthcare facilities transition to duodenoscopes with innovative designs to overcome challenges with inadequate reprocessing. Increased awareness about contaminated duodenoscopes used for endoscopic retrograde cholangiopancreatography (ERCP) procedures have led to the introduction of innovative single-use duodenoscopes pioneering single-use gastrointestinal endoscopy. The aim of this study was to assess the readiness for adopting single-use duodenoscopes into the endoscopy practice in the USA.

Methods

Between February 17, 2020 and March 16, 2020, a total number of 70 gastroenterologists performing ERCPs answered an electronic survey about converting from reusable duodenoscopes to single-use duodenoscopes. All respondents were anonymized. Data were collected using the online survey tool QuestionPro.

Results

ERCP physicians would on average convert **50%** of their ERCP procedures to be performed with a single-use duodenoscope instead of a reusable duodenoscope.

Physicians who owned all their duodenoscopes (57%) would on average convert a larger share of their ERCPs to be performed with single-use duodenoscopes compared to physicians who leased all or some of their duodenoscopes, though the difference was not significant (54% vs. 44%, $p=0.182$). Physicians who reported a duodenoscope contamination rate above 10% would on average convert 54% of their ERCPs to be performed with a single-use duodenoscope,

whereas those who reported a contamination rate under 5% would on average convert 49% of their procedures to be performed with a single-use duodenoscope ($p=0.679$).

Top 3 most important single-use duodenoscope features for physicians

1. Cost transparency **24%**
2. Eliminates risk of cross-contamination **22%**
3. Minimizes risk of cross-infection **18%**

There was no significant difference in conversion rate based on which features were selected as most important.

Discussion

This study found that physicians are interested in converting approximately half of their ERCP procedures to be performed with single-use duodenoscopes. It is noteworthy that this survey was conducted only three months after the first single-use duodenoscope was approved by FDA, before the majority of the market has access to single-use duodenoscopes, and before any additional reimbursement has been considered.

Average reported conversion rates from reusable to single-use duodenoscopes

