Rates of infection after colonoscopy and oesophagogastroduodenoscopy in ambulatory surgery centres in the USA

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Abstract

Objective Over 15 million colonoscopies and 7 million oesophagogastroduodenoscopies (OGDs) are performed annually in the USA. We aimed to estimate the rates of infections after colonoscopy and OGD performed in ambulatory surgery centres (ASCs).

Design We identified colonoscopy and OGD procedures performed at ASCs in 2014 all-payer claims data from six states in the USA. Screening mammography, prostate cancer screening, bronchoscopy and cystoscopy procedures were comparators. We tracked infection-related emergency department visits and unplanned in-patient admissions within 7 and 30 days after the procedures, examined infection sites and organisms and analysed predictors of infections. We investigated case-mix adjusted variation in infection rates by ASC.

Results The rates of postendoscopic infection per 1000 procedures within 7 days were 1.1 for screening colonoscopy, 1.6 for non-screening colonoscopy and 3.0 for OGD; all higher than screening mammography (0.6) but lower than bronchoscopy (15.6) and cystoscopy (4.4) (p<0.0001). Predictors of postendoscopic infection included recent history of hospitalisation or endoscopic procedure; concurrence with another endoscopic procedure; low procedure volume or non-freestanding ASC; younger or older age; black or Native American race and male sex. Rates of 7-day postendoscopic infections varied widely by ASC, ranging from 0 to 115 per 1000 procedures for screening colonoscopy, 0 to 132 for non-screening colonoscopy and 0 to 62 for OGD.
Conclusion We found that postendoscopic infections are more common than previously thought and vary widely by facility. Although screening colonoscopy is not without risk, the risk is lower than diagnostic endoscopic procedures.

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Statistics from Altmetric.com

Footnotes

Contributors: PW participated in study design, data analysis and wrote the first draft of the manuscript. SH conceived the study idea, oversaw the research project and participated in study design, data analysis and manuscript drafting and editing. SN and AK contributed to study design and manuscript editing. TX and MAM contributed to manuscript editing.

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