Response: Re: An Estimate of Severe Harms Due to Screening Colonoscopy: A Systematic Review

To the Editor: Swartz and his colleagues bring concerns regarding methods of our analysis and methodologies.[1] In our systematic review of the literature pertaining to the harms of screening colonoscopy, we judged that a meta-analysis was not statistically sound due to the very high heterogeneity of study results (I^2 of 97%). Although some authors may choose to perform and publish meta-analysis results with such substantial heterogeneity, we offered a credible range as a more statistically sound method for providing insight into the range of harms caused by screening colonoscopy.[2]

In regard to the Bretthauer study, this was misclassified as retrospective when it should be correctly identified as a prospective RCT. Swartz states that our analysis does not include why this study was not credible for the range used in our analysis. We do, in fact, specifically address the credibility and quality of reporting in our methods and in Table 2. The Bretthauer study was not included as the low end for the credible range for our analysis based on the McMaster tool for assessing quality of harms assessment and reporting in study reports. Designed primarily to evaluate the benefits of screening colonoscopy, this study failed to predefine harms, without annotation of serious or severe harms, and harms data were collected passively, rather than actively monitoring patients for a period of time after screening colon-oscopy.

Transition to cold snare polypectomy potentially offers great benefit for individuals undergoing polypectomy and reduces the risk of bleeding during screening colonoscopy. The time frame for inclusion of studies in our systematic review mirrors that of recommendation making bodies.[3] As guideline organizations update their search parameters, systematic reviews can and should follow. However, the methodology and study eligibility parameters of our review is consistent with that of other researchers.[4]

We followed established standards of research using predetermined inclusion and exclusion criteria, review registration, and preferred reporting items for systematic reviews and meta - analyses (PRISMA).[5] The COLONPREV trial failed to meet the prespecified inclusion criteria; although their study protocol does include complications of bleeding and perforation, it does not state that their protocol followed patients for 30 days after their procedure.[6] The SCREESCO findings are preliminary and will be valuable to the literature. Although it did exclude individuals with a history of colorectal or anal cancer, this study would have similarly not met our inclusion criteria as we only included studies that specifically excluded all high-risk populations (including those with inflammatory bowel disease or similar conditi-ons).[7]

We disagree that our systematic review vastly overestimates the rate of serious complications of screening colonoscopies. Although improving technologies may reduce the likelihood of procedure-related harms, our systematic review revealed that there has been incomplete reporting of patient harms, with little active monitoring and a heavy reliance on administrative data. Patients who are eligible for screening colonoscopy based on national guidelines should actively engage in shared-decision making with clinicians with adequate knowledge about the risks and benefits of various colorectal cancer screening options. Having accurate estimates of the risks of screening colonoscopy is necessary to inform patient decision making and should be valued by professionals recommending screening.

Alison N. Huffstetler, MD
Joseph Fraiman, MD
Shannon Brownlee, MSc
and Kenneth W. Lin, MD, MPH
From the Robert Graham Center for Policy Studies in Family Medicine and Primary Care, Washington DC (ANH); Thibodaux Regional Medical Center Department of Emergency Medicine, Thibodaux LA (JF); Lown Institute Boston, MA (SB); and Lancaster General Hospital Family Medicine Residency, Lancaster, PA (KWL)
E-mail: ahuffstetler@aafp.org

To see this article online, please go to: http://jabfm.org/content/36/6/000.full.

References

1. Swartz AW, Klippenstein K, Lavender D. Re: An estimate of severe harms due to screening colonoscopy: a systematic review [letter to the editor]. J Am Board Fam Med 2023;36:xxx.
2. Huffstetler AN, Fraiman J, Brownlee S, Stoto MA, Lin KW. An estimate of severe harms due to screening colonoscopy: a systematic review. J Am Board Fam Med 2023;36:493–500.
3. Lin JS, Perdue LA, Henrikson NB, et al. Screening for colorectal cancer: updated evidence report and systematic review for the US Preventive Services Task Force. JAMA 2021;325:1978–98.
4. Kothari ST, Huang RJ, Shaukat A, et al. ASGE review of adverse events in colonoscopy. Gastrointest Endosc 2019;90:863–76.e33.

This is the Ahead of Print version of the article.

5. Page MJ, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71.
6. Quintero E, Castells A, Bujanda L, et al. Colonoscopy versus fecal immunochemical testing in colorectal-cancer screening. N Engl J Med 2012;366:697–706.
7. Forsberg A, Westerberg M, Metcalfe C, et al. Once-only colonoscopy or two rounds of faecal immunochemical testing 2 years apart for colorectal cancer screening (SCREESCO): preliminary report of a randomised controlled trial. Lancet Gastroenterol Hepatol 2022;7:513–21.

doi: 10.3122/jabfm.2023.230358R0