Reviewer's report

Title: Capsule Colonoscopy Increases Uptake of Colorectal Cancer Screening

Version: 2 Date: 7 March 2012

Reviewer: Pat M Lynch

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Summary:

Investigators in Germany tested the hypothesis that an offer of capsule endoscopy through a major regional insurer, would increase the uptake of CRC screening. Enrollees were offered description of pros and cons of capsule colonoscopy (CC) and conventional optical colonoscopy (OC), with an offer to undergo either test. Capsule was preferred by a 3:1 margin over OC. A large number of invitees evidently underwent OC outside the scope of the program, so the effect of the invitation was uncertain in this group. Adenoma detection rate (by patient) was 26% in OC group and 9% in CC group. A survey was used to identify bases for user preferences and post hoc satisfaction.

Critique:

This study marks an interesting addition to the armamentarium of approaches taken to foster CRC screening, and likely the first to compare patient uptake of CC when offered as an alternative to OC. The greater preference for CC in men is perhaps not surprising and a consideration that could be used to leverage greater screening participation, especially in men.

Limitations of the study are several, but nonfatal. There was an overall rather low overall response rate, though likely not much lower than observed in other similar trials. An effort to reach nonresponders to assess their reasons for nonparticipation would have been helpful. Of the 15 with technically unsatisfactory CC (“incomplete”), 6 underwent OC. The difference in adenoma rate of 26% vs 9% in the OC vs CC groups was described as nonsignificant. This is actually a fairly dramatic difference, with a nonsignificant outcome likely due to sample size. Authors might wish to comment on this. A high proportion of polyps found on CC were >1cm, whereas the OC-detected tended to be smaller. One tends to assume this discrepancy may be due to relative insensitivity of CC for subcentimeter polyps. A comment about this would be worthwhile.

The authors do comment on the logistic challenges of following a CC positive screen with OC in a timely enough way as to avoid reprepping the patient. It would be helpful if the authors could comment on how explicitly this need to reprep was explained to subjects, including the fact that this would be a needed undertaking in about 5-20% of cases that would be positive or incomplete. The combination of (apparent) insensitivity for polyps <1cm with CC and relatively high rate of repeat CC would be thought to have accounted for a lower proportion
of CC uptake. Authors may wish to comment on this as well.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'