Reviewer's report

Title: The Efficacy of Intraoperative Methylene Blue Enemas to Assess the Integrity of a Colonic Anastomosis

Version: 1 Date: 7 June 2007

Reviewer: Charles Cha

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General
In Smith et al reviews their experience with the use of methylene blue enemas (MBE) as an adjunct to colorectal surgery to test for intraop leaks, as well as a preventative measure for post-op leaks. In their study of 229 pts, they and IOL rate of 7% and POL rate of 3.3%. Furthermore, they found the MBE appeared to prevent the development of post-op leaks due to immediate repair at the time of surgery. The authors should be congratulated for their well written, well thought out analysis.

A few comments:

As a retrospective study, the only comparison that can be made is to historical controls. The authors have listed leak rates of several major studies, but the majority deal with low anastamoses. It would be useful to include more proximal colonic leak studies as historical controls to adequately assess how the current study compares.

The definition of leak is critical, and the authors have done a good job of including fever, pain, elevated WBC and therapeutic interventions as criteria. It is a bit unclear whether all or some of these criteria were necessary to define a patient as having a leak.

In the discussion, the authors point to the fact that a negative MBE does not guarantee the prevention of a POL. One additional explanation would be that an anastamosis could be watertight, but ischemic, which would present as a post-op leak.

Overall, this is an important piece of work, and represents one of the larger studies looking at leaks following colorectal surgery. Furthermore, it demonstrates an easily applied technique that could potentially obviate a number of post-operative leaks as well as their concomitant complications/re-operations.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

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