Response to Reviewers

We would like to thank the reviewers for the careful and thorough reading and for the thoughtful comments and constructive suggestions, which help to improve the quality of this manuscript. Our response follows (the reviewers´ comments are in *italics*).

Reviewer number 02548913

Comments:

The authors examined the usefulness of chromoendoscopy for dysplasia surveillance in ulcerative colitis. Two expert endoscopists, novice to chromoendoscopy, evaluated each segment of the colon. The dysplasia detection rate using CE (by targeted biopsies) was higher than that by nontargeted biopsies. The standard of comparison was ambiguous to clarify the usefulness of chromoendoscopy.

1. *Please describe the dysplasia detection rate of UC surveillance by these two expert endoscopists before this study. Was the detection rate by these two expert endoscopists before this study less than the detection rate in this study?*

Reply:

We appreciate the feedback from the reviewer. We fully acknowledge that the dysplasia detection rate is currently the most objective method for evaluating the quality of colonoscopists. Unfortunately, this parameter is not readily utilized in Norway and was not available for the two endoscopists who performed the chromoendoscopy in the present study. Both were expert endoscopists with substantial endoscopic experience. The study however reflects a real-life clinical setting in Norway. The limitation has been included in the discussion on p 12.

2. *Please describe the endoscopic findings that were performed the target biopsy in the method section.*

Reply:

We fully acknowledge that the endoscopic appearance of lesions requiring targeted biopsies required more precise clarification. We have therefore included this information in the method section on biopsies on p 7.

3. *In Table 1. Study patients 67(100) The description '(100)' should be delated. Primary sclerosing cholangitis 3/65(5) → 3(5), missing n = 2?*

Reply:

We are grateful for the reviewer´s meticulous reading and have corrected the inconsistency in table 1.

Reviewer number 03580207

Comments:

This is an observational study about the real-life chromoendoscopy for dysplasia surveillance in ulcerative colitis and find that chromoendoscopy seems to be of value for dysplasia surveillance of ulcerative colitis in a community hospital setting. The yield of non-targeted biopsies is negligible. However, I suggest a few questions to make it better:

1. *The correlation of results of chromoendoscopy and targeted biopsies should be analyzed.*

Reply:

We appreciate the feedback from the reviewer. All the recorded lesions detected by CE were evaluated macroscopically to be suspicious of dysplasia. Thus, the

agreement between biopsies of targeted lesions and CE could not be estimated. The positive predictive value was however poor. Acquiring more experience with CE may improve the macroscopic evaluation of lesions and thus the positive predictive value for the technique. This limitation has been included in the discussion on p 12.

2. *A representative picture of endoscopy and pathology should be attached.*

Reply:
We are grateful for the comment and have included pictures taken during chromoendoscopy.

Reviewer number 00009064

Comments:

It is a good study that shows Chromoendoscpy to be of use in clinical practice.

Reply:
We would like to thank the reviewer for careful and thorough reading of this manuscript and for the positive feedback.

Reviewer number 03656586

Comments:

How to evaluate the mucosa after spray application of 0.4 % indigo carmine?

The method to identify lesion's appearance is not mentioned in this article.
The targeted and non-targeted biopsies were taken the same time during colonoscope examination. But in the article we still don't know the exact method of taking biopsy. It is important to know if the non-targeted biopsies were taken before dyeing in the same segment of colon.

Reply:

We appreciate the feedback from the reviewer. We fully acknowledge that the method in identifying and evaluating lesions requires more detail. Also, the sampling of nontargeted biopsies needed further clarification. We have therefore included this information in the method section on biopsies on p 7.