Response:

We appreciate the interest of Dr Saliou and colleagues in our study, and we congratulate them on their work that searches for the improvement of microbial quality surveillance of gastrointestinal endoscopes and automatic endoscope reprocessors.

Endoscope surveillance through bacterial cultures can assess the sufficiency of reprocessing to prevent infectious outbreaks. Methodologic details vary among the published articles and guidelines, and certainly some adaptation of culturing procedures may yield better results. The main guideline recently published by the Centers for Diseases Control and Prevention[1] has suggested qualitative and quantitative protocols with 48 hours as the incubation time for recovering the usual pathogens. Although the same incubation time has been recommended by recently established protocols for reprocessing endoscopes,[2,3] evidence of outbreaks of infection has been reported despite microbiologic surveillance.[4,5]

Many limitations have been associated with endoscope culturing protocols, including the lack of standardized sampling techniques, culture methods, and interpretation of results.[6] Hence, in our study, we focused on evaluating the procedures routinely used in the setting of an endoscopy unit.[3,7] Conversely, we agree that incubating the samples for more than 48 hours could result in better rates of bacterial recovery, especially those obtained from biofilms, as described by Saliou et al.[8] It is intriguing to notice, however, that some studies have described increased biofilm growth rates in comparison with planktonic (free-floating microorganisms) growth rates, whereas others have reported exactly the opposite.[9,10]

Finally, we understand that the data from Sailou and colleagues are relevant, and they also appear to be complementary to our study. Together, both studies strongly reinforce the need for continuous adaptation of the guidelines and protocols regarding endoscope surveillance, particularly in the context of biofilm-forming instruments.

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Outcomes of colitis-associated dysplasia after referral from the community to a tertiary center

To the Editor:

The recent SCENIC consensus statement favors chromoendoscopy for surveillance of dysplasia when standard definition colonoscopes are used.[1] It suggests that patients with invisible dysplasia found by white-light colonoscopy should be referred to an expert endoscopist for chromoendoscopy, but notes that there is "very low quality" evidence for this recommendation.

We reviewed our experience with patients referred to our tertiary center after dysplasia was found during white-light colonoscopy. Between 2008 and 2015, 37

patients with 62 dysplastic lesions were referred to us for further evaluation.

Despite a careful examination with high-definition colonoscopy and methylene blue dye spray chromoendoscopy, we were able to reidentify the index lesion only 42% of the time (26/62 lesions). The discrepancy may have resulted from removal of the dysplastic lesion by the referring gastroenterologist, the location not being clearly or accurately described in the endoscopy report, the absence of a localizing tattoo, or simply because we could not find it. In contrast, 12 additional synchronous lesions were identified in 9 patients; these included 9 low-grade dysplastic lesions, 1 high-grade dysplastic lesion, and 2 cancers.

At a median 7.5 months of follow-up (range, 1-72 months), we identified 28 additional neoplastic lesions in 37 examinations. Five patients were sent for surgery.

This is the first description of outcomes after referral from the community to an expert endoscopist for chromoendoscopy after dysplasia is found. The inability to find the index lesion in many patients suggests that improved "hand-offs" need to occur with this approach. Therefore, we recommend tattooing dysplastic lesions when they are suspected, and carefully detailing the location and morphology of lesions. Standardization of endoscopy reporting may help as well.[2] Importantly, we believe that the finding of synchronous lesions in these patients lends support for expert referrals and augmented examinations.

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Response:

Most dysplasia detected at surveillance colonoscopy is visible[1]; they are predominantly flat, nonpolypoid in shape, and have indistinct borders from the surrounding tissue.[2] On this basis, the SCENIC panel unanimously agreed that patients with endoscopically invisible dysplasia (confirmed by a GI pathologist) be referred to an endoscopist with experience in inflammatory bowel disease (IBD) surveillance using chromoendoscopy with high-definition colonoscopy.[3] We congratulate Rubin et al[4] for their recent letter. They highlight the value of referring such patients with endoscopically invisible dysplasia. The authors reviewed the findings in 37 patients (62 dysplasias) who were referred over a 7-year period for evaluation of colitis-associated dysplasia that was detected on white light colonoscopy. Repeated colonoscopy procedures at the tertiary center with the use of chromoendoscopy with high definition identified the referred dysplastic lesions in 26 of the 62 cases. They also found an additional 12 dysplastic lesions beyond the index dysplasia, 2 of which were cancer.

The letter shows the variability of dysplasia detection in practice. The endoscopists identified only some of the referred dysplasia, yet found synchronous dysplasia and cancer that was not reported in the index examination. It is unclear from the letter by Rubin and colleagues[4] how the referred dysplasia cases were detected on the index examination—were they detected by targeted biopsy of a visualized discrete dysplastic lesion, or were they picked up by random biopsy? The authors note that they may not have been able to relocate the dysplasia in some cases because it was no longer there (removed by the referring physician) or simply because it was not seen. This discrepancy in detection likely reflects the subtle appearance of colitis-associated dysplasia. Description of the dysplastic lesion using standardized nomenclature, documentation of the lesion using high-quality photo documentation, and marking of the site (tattoo 5 cm distal to the lesion) for future inspection and possible resection are key aspects of information supplied by referring providers to improve relocating the dysplasia. Image-based teaching and video-based teaching to facilitate the understanding of the endoscopic patterns of dysplasia by use of image enhancement are key tools to improve its recognition.

The overall findings by Rubin and coauthors[4] add support to the concept that detailed examination with high definition and chromoendoscopy improves the diagnostic yield of detecting dysplasia. In another recent study, Deepak and colleagues[5] similarly showed the significance of repeated examination, using chromoendoscopy in a referral cohort of 95 IBD patients who had dysplasia identified by random biopsy on white light surveillance colonoscopy. The use of high definition and image enhancement methods such as chromoendoscopy, coupled with the knowledge of the endoscopic appearances of colitic dysplasia, seems likely to explain the increased proportion of visible dysplastic lesions identified at repeated colonoscopy in the studies. Persistent efforts to standardize training and endoscopic surveillance practices, and the terminology and reporting used to characterize the endoscopic features of dysplasia, are another step toward improving the quality of colonoscopy surveillance in patients with IBD.