February 1, 2022 Dr. Lian-Sheng Ma Editorial Office Director, Company Editor-in-Chief, Editorial Office World Journal of Gastroenterology

Dear Dr. Ma,

Manuscript ID: 73910 Title: EVALUATING THE ACCURACY OF ASGE GUIDELINES IN PATIENTS WITH ACUTE GALLSTONE PANCREATITIS WITH INTERMEDIATE OR HIGH PROBABILITY FOR CHOLEDOCHOLITHIASIS

Thank you for the provisional acceptance of our invited manuscript. We really appreciate the thorough and detailed review of our manuscript, and the comments and points raised by the reviewers.

We have acknowledged and responded to the comments and recommendations made by the reviewers. These changes have been incorporated and underlined in the manuscript.

Our point by point responses are as follows:

Reviewers Comments:

Reviewer #1: "Dr. Tintara et al. describe the accuracy of ASGE guideline 2010 and 2019 to detect choledocholithiasis in patients with acute gallstone pancreatitis (AGP). They also compare between two guidelines and the new one allows us to detect intact bile duct, probably contributing to avoid unnecessary ERCP. The study is very important and should be known to readers. However, there are several concerns to be considered. "

Major revision:

1. "According to the Patient Characteristics, 77 patients with AGP were removed because of direct cholecystectomy without MRCP or ERCP. Why did they undergo cholecystectomy without checking up the probability of choledocholithiasis even they might have choledocholithiasis? It would be dangerous if they had choledocholithiasis which might cause the recurrence of AGP."

Thank you for raising this excellent point. To clarify, there were several reasons that the 77 patients with AGP had cholecystectomy without MRCP or ERCP. First, these patients had mild acute pancreatitis with resolution of abdominal pain and rapid normalization of liver enzymes

suggesting that common bile duct stones, if previously present, had already passed through the CBD. Moreover, these patients had abdominal ultrasound that showed normal size CBD. Thus, these patients directly underwent cholecystectomy without preceding ERCP or MRCP. If acceptable to the reviewer, we have modified the result section (first paragraph) to emphasize this point.

2. "In the Table 3 showing patient demographics, the existence of gallstone as a parameter should be necessary."

This recommendation is much appreciated. We have added to Table 3 that there are gallstones in 100% of patients in our cohort.

3. "Please describe sensitivity and specificity of Intermediate-risk and High-risk stratifications to detect choledocholithiasis when using ASGE 2010 and 2019 guidelines."

Thank you for raising this interesting point. We have calculated the sensitivity and specificity of the 2010 and 2019 ASGE guidelines in categorizing patients as high-risk and intermediate-risk for choledocholithiasis. In our cohort of patients, evidence of choledocholithiasis on ERCP was used as gold standard for true positives. Thus, the calculated sensitivity and specificity for the intermediate risk group may not be accurate as some of the intermediate risk patients did not have an ERCP which is our gold standard in defining true positive for choledocholithiasis.

Interestingly, in our cohort of patients with acute gallstone pancreatitis, using the high-risk stratification of the 2019 ASGE guidelines led to an increased in specificity to 89.4% from 75.8% when the 2010 ASGE guidelines were used. Thank you for highlighting this important point which demonstrates that the 2019 ASGE guidelines may minimize unnecessary ERCPs. An addendum has been made in method, result and discussion sections, and a new table 5 added.

4. "Some patients with Intermediate-Risk underwent direct ERCP and did not detect choledocholithiasis. Have they received EUS to detect choledocholithiasis before ERCP? We usually perform EUS prior to ERCP in case of ambiguous existence of choledocholithiasis. If not, please mention the efficacy of EUS to avoid unnecessary ERCP in the Discussion."

Thank you for emphasizing this important point. In our cohort, intermediate-risk patients who directly underwent ERCP that showed no choledocholithiasis did not receive EUS prior to ERCP.

We have added to the Discussion section (paragraph 4) that for patients with intermediate-risk, it may be prudent to consider EUS to evaluate for choledocholithiasis to prevent unnecessary ERCPs.

5. Please describe the reasons of readmission. Did they readmit due to the recurrence of choledocholithiasis or AGP? If so, the number is too many also.

We appreciate this clarification. There were multiple causes of readmissions in our cohort such as diverticulitis, autonomic dysfunction, pneumonia and urinary tract infection. The 1-year readmission rates for recurrence of acute gallstone pancreatitis or choledocholithiasis were 9% for patients who had MRCP first and 8% for those who directly underwent ERC, likely because patients refused or did not undergo cholecystectomy. We have added this clarification to the Result section (paragraph 3 under Intermediate Risk section).

6. As the authors say in the Study Groups and Outcomes of Interest, it is impossible to detect Low-Risk category of choledocholithiasis in the study design. Therefore, please modify the description in the Discussion mentioning "no patients were considered low risk".

Thank you for highlighting this. We have modified the description in the Discussion section (paragraph 4) as advised by the reviewer.

Minor revisions

1. In the last sentence of the Abstract, "One intermedicate-group" should be "One intermediategroup".

We appreciate the comment and apologize for the typo. We have corrected the Abstract as recommended.

Once again, thank you for your consideration and detailed reviews. Please let us know if any additional information or edits are required. We look forward to hearing from you

Regards, Sunil Sheth, MD Email: ssheth@bidmc.harvard.edu