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LETTERS TO THE EDITOR

GI endoscopy infection control strategy after COVID-19 peak: changing strategy for a changing epidemic



To the Editor:

We read with great interest the article by Hennessy et al¹ in *Gastrointestinal Endoscopy* about the guidance for resuming GI endoscopy after the COVID-19 peak.

We resumed elective endoscopy procedures under our local infection control strategies (ICSSs) in the Peking Union Medical College Hospital after the pandemic.² When the city of Beijing experienced an unexpected local outbreak with more than 300 clustered cases from the Xinfadi Market since June 10, 2020, we modified our

ICSSs to keep a sustainable and safe endoscopy service (Table 1).

Since early June 2020, we have turned to the new patient triage strategy of certifying infection risk by reverse-transcriptase polymerase chain reaction (RT-PCR) and epidemiologic history (Fig. 1) (for patient triage strategy during the pandemic, see Supplementary Fig. 1, available online at www.giejournal.org). Orofecal transmission during colonoscopy has never been really demonstrated, so it is reasonable that colonoscopy is regarded as of lower risk in terms of transmissibility than is upper GI endoscopy.³ Therefore, we have used surgical masks for colonoscopy since early June, which was proved to be effective in the pandemic,⁴ and we still wore N95 respirators for upper GI endoscopy but changed back to N95 respirators for all procedures after the local outbreak.

TABLE 1. Changing Infection Control Strategies in Endoscopy Center of PUMCH During COVID-19 Epidemic

ICSSs	During pandemic*	After pandemic	During local outbreak
Procedure triage†	<ul style="list-style-type: none"> ■ Only urgent and semiurgent procedures accomplished ■ Elective procedures postponed 	<ul style="list-style-type: none"> ■ All procedures scheduled ■ Stepwise resumption of daily work to full capacity 	<ul style="list-style-type: none"> ■ All procedures scheduled ■ Daily work decreases to 50%-60% of full capacity
Working team simplification	<ul style="list-style-type: none"> ■ Only necessary staff came to work ■ On-hand training suspended 	<ul style="list-style-type: none"> ■ More staff came for increasing daily work ■ On-hand training restored 	<ul style="list-style-type: none"> ■ Staff working depends on the daily work ■ On-hand training suspended
Telehealth consultation	<ul style="list-style-type: none"> ■ Online free consultation 	<ul style="list-style-type: none"> ■ Online free consultation 	<ul style="list-style-type: none"> ■ Online free consultation ■ Online chargeable outpatient clinics
PPE use	<ul style="list-style-type: none"> ■ Full PPE for all endoscopies‡ 	<ul style="list-style-type: none"> ■ Full PPE for urgent procedure of COVID-19-positive patients ■ Full PPE for upper GI endoscopy and standard PPE for colonoscopy in COVID-19 negative patients 	<ul style="list-style-type: none"> ■ Full PPE for all endoscopies
Endoscopy room decontamination	<ul style="list-style-type: none"> ■ 30 mins between each case ■ Single-use bed sheet ■ Surface contact with patients disinfected with chlorine-based solutions; endoscopy instruments disinfected with 75% alcohol ■ HEPA device 	<ul style="list-style-type: none"> ■ 10 minutes between each case ■ Surface contact with patients disinfected with CaviCide§ ■ The rest unchanged compared with “during pandemic” 	<ul style="list-style-type: none"> ■ Unchanged compared with “postpandemic”

Note that other ICSSs such as workplace arrangement and endoscope disinfection are sustained the same as those during the pandemic. We routinely follow up all patients for 14 days after procedures to rule out COVID-19.

AAMI, Association for the Advancement of Medical Instrumentation; ICSSs, Infection control strategies; PPE, personal protective equipment, PUMCH, Peking Union Medical College Hospital.

*Zhang S, Wu X, Pan H, et al. Gastrointestinal endoscopy infection control strategy during COVID-19 pandemic: experience from a tertiary medical center in China. *Dig Endosc*. Epub 2020 Jun 28.

†Urgent procedures for acute GI bleeding, GI foreign body, acute cholangitis, and severe symptomatic obstructive jaundice due to gallstone or tumor, and acute luminal obstruction requiring stent placement; semiurgent procedure; semiurgent procedures for tumor diagnosis of highly suggestive cases and tumor staging; elective procedures for all other procedures, such as routine diagnostic or screening EGD and colonoscopy.

‡Full PPE includes disposable work cap, N95 respirators or equivalent, face shield/goggles, disposable protective clothing (AAMI level 3), double gloves and shoe covers; in standard PPE, surgical masks take the place of N95 respirators, and disposable gowns (AAMI level 1) take the place of disposable protective clothing (AAMI level 3).

§CaviCide (Metrex Research, Michigan, USA) contains 0.25%-0.33% benzethonium chloride plus 15%-18% isopropanol, and both compositions are effective against COVID-19.

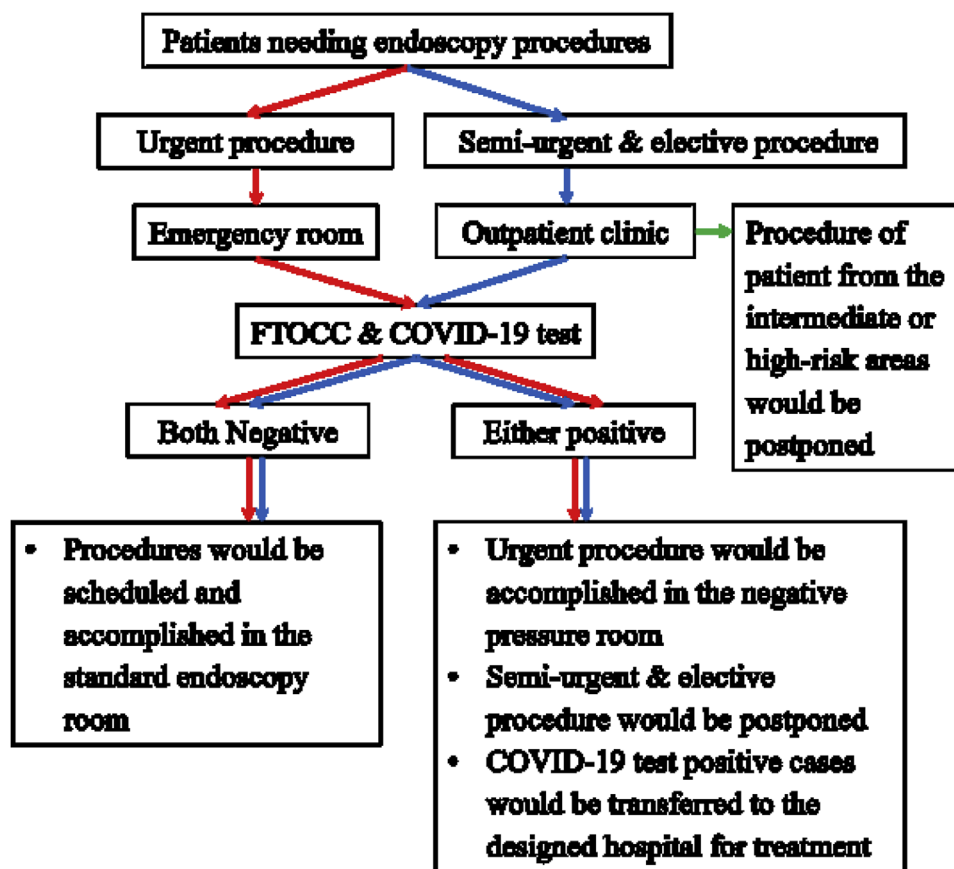


Figure 1. Patient triage strategy by infection risk after COVID-19 pandemic and during local outbreak. *Red arrows* indicate flow of urgent cases. *Blue arrows* indicate flow of semiurgent and elective cases. If adequate FTOCC history and RT-PCR test cannot be acquired for emergency, all urgent cases should be considered COVID-19 positive for infection control, whose procedures should be accomplished in the negative pressure room. Ideally, RT-PCR test should be done within 2 days before procedure for reducing the infection risk between the test and procedure. During local outbreak, we added the “residence place triage” (*green arrow*): procedures of patients from intermediate or high-risk areas would be postponed except in urgent cases. Risk for different areas was declared by the local Municipal Health Commission. *COVID-19*, coronavirus disease 2019; *FTOCC*, fever, travel history to pandemic area, occupation, cluster of cases, contact with suspected or confirmed case.

Under the modified ICSs, we continue to provide 1497 cases of elective endoscopy, including 5 cases of endoscopic therapy for early GI cancer, and also 40 cases of urgent procedures during the local outbreak. There are no local outbreak-related cases in the work staff or patients in our endoscopy center. With the local outbreak in the decline trajectory, we returned to the ICSs in early June 2020 (the “postpandemic” strategy).

We suggest monitoring the pandemic closely and modifying the ICSs accordingly for recommencing GI endoscopy.

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Shengyu Zhang, MD
Xi Wu, MD
Yunlu Feng, MD
Qiang Wang, MD
Qingwei Jiang, MD
Tao Guo, MD
Dongsheng Wu, MD
Tao Xu, BN
Ran Li, BN
Aiming Yang, MD

Department of Gastroenterology
Peking Union Medical College Hospital
Chinese Academy of Medical Science
Beijing, China

Dr Zhang and Dr Wu contributed equally to this work.

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Optimal stent placement strategy for malignant hilar biliary obstruction: a management dilemma



To the Editor:

We read the article by Xia et al¹ with great interest. The article addresses the dilemma of the endoscopic management of malignant hilar biliary obstruction (MHBO) because no universal consensus is available. The authors compared 4 major modalities to determine the optimal strategy and concluded that dual metal stent placement is a preferred palliation for inoperable MHBO if technically feasible.

The study rightly excluded patients with unresectable malignant hilar biliary obstruction because these are best treated conservatively owing to the limited prognosis. The endoscopic intervention is preferable where biliary decompression is mandated, but obviously it is not without risks.² It would be useful to compare these results with the results in patients treated by percutaneous transhepatic biliary drainage.

We would like to ask why the rates of stents traversing the papilla were different between bilateral metal stents and unilateral metal stents in matched cohorts (23.7% vs 90%-100%) for other groups. Could this reflect differences in technique, which affected outcomes? The 7F stents are technically easier to deploy but are inferior to 10F stents in terms of patency and drainage.³ A subgroup analysis of bilateral plastic stents and unilateral plastic stents for 7F and 10F stents could shed light on this important aspect. This study has the potential to change clinical practice if we could classify interventions by Bismuth subgroups.

Patients with type IV and stage IV cholangiocarcinoma are expected to have shorter life spans, and it is reasonable

to palliate them with metal stents, as was observed in this study.^{1,4} However, we noted that only 17% of patients had Bismuth type II/III disease. Such patients are expected to live longer than a year with current available therapeutic options.⁵ If type II/III were analyzed separately from type IV, could the results have been different? Infectious adverse events are an “Achilles heel” for malignant biliary strictures. Over time, metal stents have been associated with obstruction and cholangitis resulting from tissue ingrowth. Can we justify placing unremovable metal stents in patients with life expectancy of much longer than a year?

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Muhammad K. Hasan, MD, FACC

Advent Health

Orlando, Florida, USA

Mian Shah Yousaf, MBBS, FCPS

Peshawar Medical College

Nadeem Tehami, MRCP (UK), FRCP, FEBGH

Kamran Ala, MRCP

Department of Gastroenterology

University Hospital Southampton NHS Foundation Trust

Chandlers Ford, Hampshire, UK

UnMustafa A. Arain, MD

Division of Gastroenterology

University of California, San Francisco

San Francisco, California, USA

Saqib Ahmad, MRCP (UK) Gastroenterology, FRCP,

FEBGH

Gastroenterology Department

Kingsmill Hospital

Shanil Kadir, MRCP (UK) Gastroenterology, FRCP, FEBGH

Gastroenterology Department

Liaquat National Hospital

Zaigham Abbas, FCPS, FRCP

Gastroenterology Department

Ziauddin Hospital

Karachi, Pakistan

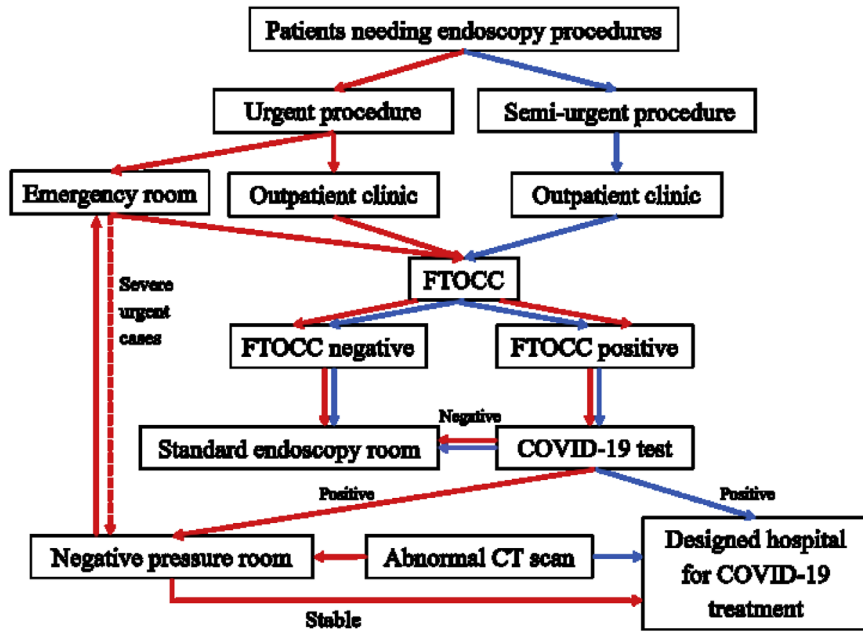
Saad Khalid Niaz, MBBS, MRCP (UK), FRCP

Patel Hospital

DUHS

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Supplementary Figure 1. Triage of patients by infection risk during COVID-19 pandemic. *Red arrows* indicate flow of urgent cases. *Blue arrows* indicate flow of semiurgent cases. If adequate FTOCC history cannot be assessed for emergency, all urgent cases should be considered COVID-19 positive for infection control. Abnormal CT scan refers to CT findings suggestive of COVID-19. *CT*, Computed tomography; *COVID-19*, coronavirus disease 2019; *FTOCC*, fever, travel history to pandemic area, occupation, cluster of cases, contact with suspected or confirmed case.