

COVID-19 And The Endoscopy Unit



Joint Indian Societies

Guidelines

Joint Recommendations from SGEI, ISG & INASL

Background

Infection with Corona virus 2019 (COVID-19), known also as SARS-CoV-2, is an evolving pandemic. It began in December 2019 in Wuhan, Hubei region of China and then rapidly spread to nearby provinces and neighboring countries. As of March 18, 2020, the infection has been reported from 160 countries, and has affected more than 200,000 people worldwide, with more than 8000 deaths (<https://www.worldometers.info/coronavirus/>).

The COVID-19 related disease mostly presents as fever, weakness, dry cough, and sore throat. Nearly 50% of patients report shortness of breath, and a few develop adult respiratory distress syndrome (ARDS). Nasal symptoms are infrequent. Asymptomatic infection can occur; however, in the absence of a serological test, its frequency remains unclear. The case fatality rate has been reported as 3.5%, but may depend on case definition; for instance, if milder cases or asymptomatic persons are tested, diagnosed and included in the case count, the mortality rate would appear to be low. Human-to-human transmission occurs primarily via direct contact or through air droplets. The mean incubation period is 5 days (range 0-14 days). Though spread from asymptomatic persons in the late incubation period appears possible, most of the viral spread appears to occur from infected persons with symptoms. Older people, pregnant, and the immune-compromised individuals are the high-risk groups.

Gastro-intestinal symptoms, including nausea and/or diarrhea, occur in about 5- 50% of infected individuals. Liver enzymes are abnormal in a quarter of cases. Viral RNA is detectable in stool; however, whether this indicates presence of viable virus and risk of transmission remains unclear. In the meanwhile, it appears prudent to consider gastrointestinal (GI) secretions as infective, and capable of causing fecal-oral transmission, and be associated with potential for transmission of the virus during endoscopic procedures from patient to patient or from a patient to healthcare providers.

In GI endoscopy units, several staff members, including physicians and other healthcare workers (HCW) often work at very short physical distance from the patients, and are frequently exposed to splashes, air droplets, mucus or saliva during GI endoscopy procedures. The risk of exposure may be particular high during intubation with an endoscope, which may induce coughing or violent retching,

or during placement of an endotracheal tube, if anaesthesia is required or a respiratory complication during the endoscopy makes this necessary.

The best personal protection techniques currently recommended at all times are:

- (i) Regular and thorough hand washing (with soap and water or antiseptic hand wash solutions, preferably those containing 60% alcohol),
- (ii) Avoidance of touching one's own face, mouth or nose,
- (iii) To follow cough and sneezing etiquettes, and
- (iv) Maintenance of social distancing and avoiding of crowds.
- (v) Wearing of surgical masks by HCWs in endoscopy suites may help prevent exposure to infectious material from an infected patient source (such as splashes, saliva, or mucus).

While these practices are very useful but may not sufficient enough to provide complete protection from exposure to the virus and other contaminants to the wearer.

With an increasing number of COVID-19 cases in India (nearly 150 cases, including 3 deaths, on March 18, 2020), it is felt that GI health professionals need to be aware about the disease and need to know how to prevent COVID-19 transmission and to manage patients during the ongoing COVID-19 pandemic. Keeping this in view, the three Indian professional bodies (SGEI, ISG and INASL) have come up with these recommendations as a guidance for gastroenterologists and GI endoscopists who are involved in providing care for gastrointestinal disease.

Since the available scientific evidence is scanty, these recommendations are mostly based on expert opinion, and knowledge of other pathogens with similar characteristics. However, these represent what is believed on the best current understanding and prudent clinical practice, and should generally serve the gastroenterology community well.

These recommendations are divided into two sections, namely (I) those related to endoscopic procedures, and (II) other important aspects of patient care in the face of COVID-19 pandemic.

I) Recommendations related to endoscopic procedures

1. Scheduling of endoscopic procedures

Endoscopy procedures can be divided into three categories, based on their urgency as follow:

A. Emergency endoscopic procedures: Diseases/conditions requiring emergency endoscopic procedures (life-saving measures) such as acute upper GI or lower GI bleeding, removal of impacted foreign body, cholangitis, gastrointestinal perforations are considered life-saving measures and they need to be done on emergency basis, as usual.

B. Urgent endoscopic procedures: Diseases/conditions where the treating clinician feels that a significant impact may be achieved on the clinical outcome in one-month time by a endoscopic procedure, should be considered as urgent procedure(s). Examples include drainage of infected pancreatic fluid collection, diagnosis and staging of GI cancers, nutritional support by NJ tube / PEG placement, draining of malignant biliary obstruction, stenting for malignant luminal obstruction (growth in the esophagus, colon and duodenum) etc.

C. Routine endoscopic procedures: All those endoscopic procedures that do not fall in either of the above two categories are considered routine endoscopic procedures such as e.g. all routine referrals for endoscopy procedures, screening and surveillance endoscopy.

It is recommended that only emergency and urgent endoscopy procedures may be undertaken for the next 4 weeks or until the current threat of COVID-19 lasts or further evidence becomes available. Routine endoscopy procedures can generally be postponed for one month, though such patients must be closely monitored for change in clinical status and for change in the need for endoscopy to urgent or emergency. In such cases, alternative approaches (e.g. a radiologic investigation) may provide a less-risky option for diagnosis or treatment.

All the three Indian Gastroenterology Societies (SGEI, ISG & INASL) jointly recommends considering only emergency and urgent endoscopy procedures for the next one month or till the current threat due to COVID-19 is over. Routine endoscopy procedures can be postponed for the next four weeks, unless their category changes in the intervening period.

2. Endoscopic procedures

For any patient scheduled for endoscopy, the following steps are recommended during the pre-procedure, procedure and post-procedure phases.

A. Pre-procedure screening

- Obtain history of fever or respiratory symptoms, contact with a confirmed case of COVID-19, recent history of overseas travel, especially to a known high risk countries (e.g. China, Japan, South Korea, Iran, Italy and Spain).
- Routine measurement of temperature of all patients scheduled for endoscopy.
- For those with probability of high-risk exposure to coronavirus or with symptoms that may be related to coronavirus infection, unless there is an emergency indication for endoscopy, the procedure should be postponed, and the testing, treatment and care protocol recommended by the Ministry of Health and Family Welfare (MOHFW), Government of India should be followed.
- Patients undergoing GI endoscopy should be categorized according to their risk of harboring SARS-CoV-2 infection into three categories as follows.

Low-Risk patient:

- No symptoms (cough, fever, breathlessness, diarrhea);
- No stay (in high-risk areas* in the past 14 days)
- No contact with a COVID-19 patient

Intermediate-Risk patient:

- Symptoms present BUT
- No stay in high risk areas during the past 14 days AND
- No contact with a patient with COVID-19
- OR
- No symptoms BUT
- Contact with known COVID-19 patient OR
- Stay in high-risk area in the last 14 days

High-Risk patient:

- At least one symptom present AND
- Contact with COVID-19 patient OR
- Stay in a high-risk area

NB. * 'High-Risk' areas are all areas where more than 1000 cases have been confirmed till date; this is changing from day-to-day.

In case of high-risk exposure or presence of symptoms, follow the recommended protocol provided by Ministry of health and Family Welfare (MOHFW), Government of India.

B. Procedure room

- The number of staff members present in the endoscopy area during the procedure should be reduced to the minimum required.
- All members of the endoscopy team should wear appropriate personal protective equipment (PPE), such as gloves, mask, eye shield/goggles, face shields, and gown, as appropriate, based on risk assessment and stratification.
- Health care workers should wear masks and disposable gowns, hairnet, shoe cover and undertake adequate hand washing, before and after handling the patients.
- For high-risk cases, ensure that appropriate personal protective equipment (PPE) is available and worn by all members of the endoscopy team: gloves, mask, eye shield/goggles, face shields, and gown. In such cases, the sequence of wearing and removal of PPE must follow the prescribed standard protocol.
- Data on efficacy of the commonly used chemical disinfection agents against SARSCoV-2 are not currently not available. However, most of the other coronaviruses are inactivated by most of the commonly-used disinfectants, and hence it appears that no additional steps beyond those currently recommended otherwise are needed for endoscope cleaning and re-processing. However, the recommended protocols for disinfection techniques for endoscope reprocessing must be strictly adhered to.

- As far as possible, only disposable endoscopic accessories should be used.
- Standard endoscopy room disinfection policy should be followed for non-COVID-19 or low-risk patients undergoing endoscopy. For patients with intermediate or high risk of COVID-19 infection, non-critical environmental surfaces frequently touched by hand (e.g. bedside tables, bed rails, cell phones, computers) and endoscopy furniture and floor should be disinfected at the end of each procedure.

C. Post-procedure observation

- During patient observation in the post-procedure area or a recovery room, adequate spacing between beds (at least 6 feet) should be aimed for. ensured.
- Surgical masks should be provided for patients with respiratory symptoms.

II) Other recommendations relevant to gastroenterology practice

1. Out-patient clinics

- Non-urgent consultations and OPD visits may be postponed or rescheduled after 4 weeks one (unless change in symptoms or clinical situation warrants an earlier visit during the intervening period).
- The policy of having only one accompanying person per patient should be insisted on in consultation room, waiting area and IP patients, to avoid crowding.
- Information about COVID-19 must be displayed in the out-patient and other patient waiting areas with visuals recommending do's and don'ts.
- An appointment system should be instituted and followed so that the patients do not wait for a long time or crowd in the OPD or endoscopy waiting area.
- Electronic or social media (including phone calls, text messaging or WhatsApp, video calling applications) can be used for resolving minor queries, instead of a visit to hospital/clinic.

2. Academic activities and work schedule of the department.

- It is ideal to follow the institutional policy regarding holding academic activities and the work schedule of the department. It is suggested that all department meetings /classes involving >10 person may be rescheduled till the COVID crisis is over.
- In case no institution policy exists, department meetings /classes may be cancelled till this epidemic crisis is over.
- Encourage fellow students, registrars and doctor colleagues to use of text messaging tools (e.g. WhatsApp) or social media tools for communication and academic interaction between members of the gastroenterology team as well as for those with other specialists.
- In the event of an outbreak in the department / hospital, it is most appropriate to follow the institutional guidance. It would be appropriate to have more than 1 team (of doctors and other staff) for providing round the clock service on rotation basis. A schedule may be drawn where only one group attends the hospital on a given day and the other group follows the next day. This may help in avoiding the whole department going into quarantine in the case of a high-risk exposure.

3. Actions in case of exposure to a health care worker to COVID-19

- If a health care worker is exposed to a person at high-risk of or with laboratory-confirmed coronavirus infection, infection control team of the hospital should be informed immediately, and the guidelines set up by the MOHFW, Government of India should be followed.
- Such workers may need quarantine for 14 days with self-monitoring and/or supervised guidance, based on by the risk stratification of the exposure.

The recommendations for quarantine may change over time, if the community spread of coronavirus becomes common.

4. Care of special groups, e.g. patients on immunosuppression

- Patients on specific immuno-suppressive treatment, such as corticosteroids or cancer chemotherapy (e.g. in patients with inflammatory bowel disease, autoimmune liver disease, transplant recipients) should contact their treating doctors for advice about the need to continue their treatment. Often, the risk of flare of the original disease may outweigh the chance of contracting COVID-19, necessitating the continuation of such drugs.(2) However, they need to also follow the guidelines of the MOHFW, Government of India to avoid exposure to the coronavirus disease, especially social distancing and hand washing.
- Patient with cirrhosis (even Child A) and those who are post liver transplantation should be discouraged from visiting the clinic / hospital unless absolutely essential.
- Patients with decompensated CLD should be considered for inpatient treatment only if pressing indications for admission e.g. acute GI bleed, hepatic encephalopathy, tense ascites causing respiratory distress, liver cancer requiring loco-regional therapy or transplant.
- Endoscopic variceal ligation as primary prophylaxis should be postponed till next 4-6 week.
- Post liver transplant patient with COVID-19 infection should be monitored for drug-drug interactions, especially when given the HIV drug Lopinavir/Retonavir (See AST Guidance).
- Hospitals or clinics may adopt measures, which are locally suitable and acceptable as per the regional or state policies and the local risk of occurrence of outbreaks.

As medical personnel, gastroenterologists are committed to our patients, community and humankind at large. They should adopt steps to prevent spread of this virus, while imparting quality care to their patients, and protecting themselves, their staff and co-workers, and their family members and the population at large.

References and further reading

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