**Indication and Pathway for COVID-19 patients requiring ERCP**

Role for ERCP in persons with suspected or confirmed COVID-19. All patients should have the COVID-19 risk assessment completed prior to procedure.

Guiding principle: ERCP in any patients with suspected or confirmed COVID-19 should be delayed if possible. We accept that this may mean patients will have ongoing symptoms. These symptoms are to be treated by the referring physician.

Patients who have recovered from COVID-19 (10 days from the onset of symptoms and afebrile and improved clinically) can been treated as a COVID-19 negative patient

If the ERCP in a patient with suspect or confirmed COVID-19 cannot be delayed, contact the triage team directly.

**Current indication:**

1. Acute cholangitis following the flow diagram 1.: all patients will be vetted through the ad hoc Triage Team.
   - The goal is to defer and delay biliary compression as much as safely possible, with as little compromise of mortality in patients with acute cholangitis as possible, in cases where we would normally have proceeded with ERCP.
   - Tokyo guidelines is a validated tool as diagnostic criteria and for assessment of severity of acute cholangitis.
   - Based on Tokyo guidelines, the most mortality benefit for emergent/urgent (within 24/48 hours) biliary decompression in patients with cholangitis was in patients that met criteria for **GRADE 2 or Moderate** cholangitis. These are the patients that are at risk of progressing to severe disease with poorer outcomes.
     - The extent of the procedure and procedure time will be limited to only that sufficient for management of the acute problem, deferring more extensive diagnostic sampling or treatment till recovery  ○ Sphincterotomy and Stent only

2. Symptomatic stone vetted through the ad hoc Triage Team.
   - All suspected or confirmed COVID-19 patients should wait 10 days after the COVID 19 symptoms have subsided.
   - The extent of the procedure and procedure time should be limited to only that sufficient for management of the acute problem, deferring more extensive diagnostic sampling or treatment till recovery  ○ Sphincterotomy and Stent only

Ad hoc Triage Team will consist of Paul Johnson, Dana Farina, Jim Ellsmere, Ali Kohansal, Geoff Williams, and Steve Gruchy. In order to achieve approval, the requesting ERCP physician, as well as one provincial endoscopy lead, and one other ERCP physician must be present.
Diagram 1: Referral for ERCP in Patient with Acute Cholangitis (AC) and Confirmed / Suspected COVID-19

Requires ERCP based on Tokyo guidelines OR clinical judgement?

**YES**
- Patient meets criteria for suspected or confirmed COVID-19 based on risk assessment?

**YES**
- Confirm that adequate medical and resuscitative measures are undertaken
  - Delay ERCP minimum for 14 days as long as there is no adverse change in patient status
  - Communicate and coordinate care with referring physician

**NO**
- Routie care

**NO**
- Confirm that adequate medical and resuscitative measures are undertaken
  - Delay ERCP minimum for 14 days

ERCP Committee Discussion + Severity Assessment of Cholangitis:

Any **ONE** of the following markers of end organ dysfunction:
- Hypotension requiring vasopressors
- Reduced LOC / delirium
- Respiratory dysfunction
- AKI: Oliguria or Cr > umol/L
- Hepatic: INR > 1.5
- Hematologic: Platelet count < 100

OR

Any **TWO** of the following criteria:
- WBC > 12 or < 4
- High fever >=39
- Age >=75
- Bilirubin >=85
- Albumin <0.7* lower limit or normal .7x35=25

YES

Plan ERCP or biliary decompression within 48 hours

NO

Can either use Tokyo guidelines OR clinical judgement.


Diagram 2: Patient Flow

Patient approved by Triage team

Patient will need to be admitted to HI. Referring physician will need to contact the appropriate COVID unit.

Does patient require Anesthesia assistance?

**YES**
- Patient to be waitlisted and done in OR #7 under general anesthesia.
  - PPE required includes N95.

**NO**
- Procedure performed in OR #8 with procedural sedation.
  - PPE required includes surgical mask.
  - N95 may be used if risk of intubation required.

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