Guidance for safe endoscopy unit operations in pandemic conditions

HSE Acute Operations Endoscopy Programme

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1. Introduction

This is the second national guidance document from the HSE Acute Operations Endoscopy Programme as a result of the COVID-19 pandemic. It has been developed with input from Dr Vida Hamilton, National Clinical Advisor and Group Lead for Acute Hospitals, colleagues from the HSE Acute Operations Scheduled Care team and representatives from the Health Protection Surveillance Centre, in particular the Antimicrobial Resistance and Infection Control team. Expert input was kindly given by members of the National Endoscopy Working Group and the Endoscopy Programme team are grateful for their contribution. The document was approved for publication by the office of the Chief Clinical Officer.

The first guidance document was issued to assist units in maintaining access to emergency endoscopy service during the peak phase of the pandemic (mid-March to Mid-May 2020).

It is now important to resume endoscopy activity, especially urgent elective endoscopy activity (P1), as staffing and local conditions allow. There will be a need to maintain physical and social distancing between staff, patients and visitors for the foreseeable future.

The aim of this guidance is to help endoscopy units assess and manage the risks associated with COVID-19 transmission and plan how endoscopy activity can resume while minimising risk to staff and patients. The only way to eliminate risk entirely is not to operate endoscopy services but this has the potential to cause significant harm and increase non-COVID-19 related morbidity. The most recent publications on the risk of COVID-19 transmission to patients and staff provide some reassurance (see section 13, useful links).

This guidance is applicable for endoscopy procedures taking place in public hospitals. It is also applicable to endoscopy procedures undertaken in private facilities under the terms of agreement in relation to the provision of public health services in private hospitals as a response to the COVID-19 pandemic. This guidance should be shared with private facilities which are performing endoscopy.

More guidance documents are underway by the endoscopy programme and the HSE more generally, and they will be circulated. They are noted in this guidance document.

Please contact Grace O'Sullivan, Programme Manager, HSE Acute Operations Endoscopy Programme for further information graceosullivan@rcpi.ie 086 1409 177.

This document is also available in Word format.

2. Preparing for resumption of services

Decision making and workforce

It is recommended that each endoscopy unit develop a standard operating procedure (SOP) for COVID-19 which contains local protocols and decisions. This should be shared with the hospital Multidisciplinary COVID-19 Preparedness Committee.

The availability of the endoscopy team members who may have been redeployed to other areas of the hospital is key to resuming normal services. This includes senior medical staff, trainees, nurses, healthcare assistants and clerical staff. Clinical and non-clinical staff should be redeployed back to endoscopy units before booking and scheduling patients can commence.

Capacity and scheduling

Appointments should be carefully staggered to avoid multiple patients arriving at the same time. Based on the need for physical distancing at each point in the patient pathway, the capacity to safely perform procedures in the unit should be estimated using a points system but remember that total patient numbers need to be considered. Remember to include capacity for current in-patient emergency procedures in initial calculations. Consider whether with the use of staggered start/stop times for staff, an extended working day can be achieved – this may help maximise the throughput of your limited capacity.

Resume scheduled activity gradually. Observe carefully how your unit flow is operating; it may be possible to schedule additional procedures if the flow allows. Cancel procedures if you observe difficulties with flow that compromise your ability to maintain safe distancing along the pathway.

3. Staff health and wellbeing

At the start of each day, all staff should be asked by their line manager/person in charge to check that they do not currently have symptoms of COVID-19 infection.

Temperature checks may be offered to staff when there is any uncertainty about symptoms of fever. If symptoms develop during a shift, staff should immediately report to their line manager/person in charge. A local pathway should be established for management (including testing) of staff who develop symptoms while either on or off duty. See appendix 1 for a healthcare worker algorithm for pre-work screening.

Records should be kept of any close and casual contacts of members of staff/patients by the line manager/person in charge to facilitate rapid contact tracing in the event of a positive test. Rapid testing pathways for COVID-19 should be used where available to expedite prompt contact tracing.

Staff start times, break times and finish times should be staggered to avoid congestion in changing areas or staff rest rooms. Physical distancing should be maintained for any staff handover or briefings (consider performing these in small groups rather than a single large group setting). Staff should only use designated staff-only toilet facilities.

The importance of continuous adherence to good hand hygiene for all staff cannot be over emphasised. Units should ensure that hand hygiene training is up to date for all staff working in the unit. Staff should follow national guidance about the use of face masks in clinical areas. This guidance is online at:

https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/ppe/useofsurgicalmasksinhealthcaresetting/

4. Patient selection for endoscopy

The decision to proceed with endoscopic evaluation for an individual patient requires a careful evaluation of the risks to that individual patient and the potential benefits. Appendix 2 contains a suggested framework to assist in prioritisation and scheduling. In the peak phase of the pandemic endoscopy activity was limited to emergency procedures (priority level 1 & 2 in appendix 2). The NTPF protocol should be followed for managing waiting lists.
https://www.ntpf.ie/home/pdf/National%20Waiting%20List%20Management%20Protocol.pdf

Urgent (P1) patients

Patients who are on the urgent (P1) waiting list should now be scheduled (priority level 3 in appendix 2). New referrals should be carefully triaged to ensure that there is an urgent indication and that an assessment and treatment pathway is available and active for the patient in the event of a diagnosis of cancer or other significant diagnosis.

Routine (P2) patients

Endoscopy units should consider clinical re-triage of routine symptomatic (P2) cases against existing HIQA guidance to identify patients who may need to be re-prioritised.

- Referral thresholds for patients with upper gastrointestinal symptoms suspected of indicating malignancy
  https://www.hiqa.ie/sites/default/files/2017-01/HIQA_SP-HTA_Upper_GI_Symptoms.pdf

- Referral thresholds for patients with lower gastrointestinal symptoms suspected of indicating malignancy
  https://www.hiqa.ie/sites/default/files/2017-01/HIQA_SP-HTA_Lower_GI.pdf

Planned procedures/surveillance patients

Following this surveillance waiting lists should be validated against the clinical guidelines.
Coming soon: The Endoscopy Programme will be issuing further guidance about validation of surveillance waiting lists shortly.

Consideration should be given to only scheduling/rescheduling routine and surveillance procedures (priority level 4/5 in appendix 2) once the waiting list for urgent cases has been addressed.

Other considerations:

It is suggested that direct access pathways should not be used at this time and that enhanced clinical triage of all referrals should be employed. Alternative (non-invasive) investigations should be considered where available. This can include the use of radiology, capsule endoscopy, urea breath testing, faecal antigen testing and faecal calprotectin testing.

Patients aged 70 years and older and those patients deemed vulnerable due to age/co-morbidity or immune suppression are at increased risk of adverse outcomes if they acquire COVID-19 infection. An alternative (non-invasive) investigation should be carefully considered for these individuals.

5. Information for patients

Information packs issued to patients in advance of their procedure should include information on any special arrangements that are in place for admission and discharge as a result of social distancing.

Patients should be advised that if they develop any symptoms of COVID-19 in the following 14 days, they should contact their GP for assessment and testing if indicated. If the test is positive, patients should inform their GP and the Public Health contact team that they have attended recently for an appointment.

Coming soon: A national HSE patient information leaflet about attending hospital for an appointment during COVID-19 will be available shortly and circulated to endoscopy units.

6. Information for GPs

It is advised that hospitals should inform GPs of any changes to referral pathways; particularly if direct access is not available to GPs at this time.

Develop pathways for direct-to-GP or virtual clinic follow up for histology results or other investigations recommended as a result of the procedure. Consider adding a request to GPs in the procedure report or management plan to be informed of any patient testing positive within two weeks of an endoscopic examination. This will assist in local and national surveillance efforts. Endoscopy units are encouraged to share information about such COVID-19 surveillance with the Endoscopy Programme.

It may be timely to remind GPs about the GP Referral Pathway for Suspected Colorectal Cancer which was developed by the National Cancer Control Programme. It is a useful reference resource when making referrals. The pathway is online at
www.hse.ie/eng/services/list/5/cancer/profinfo/resources/gpreferrals/colorectal.html

7. Pre-procedural engagement with patients

Clinical screening:

All patients should have a pre-procedural engagement that is virtual, by telephone or other suitable means, to ascertain that they are not

1. Suffering from any symptoms or signs of COVID-19
2. Self-isolating due to being a close contact
3. Suffering from acute illness of any nature other than that related to the procedure
4. In contact with any member of their social group who is suffering from the symptoms or signs of an acute illness, in particular those of COVID-19.

This pre-procedural engagement should take place 24-48 hours before admission (and prior to patients commencing bowel preparation for colonoscopy).

Transport and accompanying adult:

Patients should be advised that they need transport to and from hospital and a designated individual to stay with them for 12-24 hours after any procedure involving sedation. It is preferable if the accompanying adult remains in the car/outside the hospital while the patient attends for their endoscopy procedure. It is recognised that this may not always be possible. The accompanying adult should not have any symptoms of COVID-19. No children are to accompany individuals for procedures. Where there is doubt, err on the side of caution; reschedule the procedure.

The Government announced the Community Call on 2 April 2020 in response to COVID-19. As part of this, local authorities have set up local Community Response Forums in each local authority area. Transport to medical appointments and collection of prescribed medicines are just two of the services available through the forums. More information is online at https://www.citizensinformation.ie/en/health/covid19/community_support_during_covid19.html

8. Pre-procedural testing

Pre-procedural testing for COVID-19 is not routinely recommended prior to upper and lower GI endoscopy performed with conscious sedation. Separate advice is available for bronchoscopy and where general anaesthesia is required. Grace O'Sullivan can provide further information graceosullivan@rcpi.ie.

It is recognised that testing may be appropriate in limited circumstances to mitigate enhanced risks associated with certain patient groups, aspects of the physical environment or due to changes in the prevalence of the infection in the local community.

If a pre-procedure COVID-19 test is required, it should be performed within two days (48 hours) of the procedure. It is recognised that there may be variation in testing turnaround times and in some instances, it may only be possible to schedule a pre-procedure COVID-19 test within three days (72 hours) of the procedure. For example, if the patient is scheduled for an endoscopy procedure on Monday, the COVID-19 test can be organised for the Friday before.

Testing should take place via a locally established and validated pathway.

Patients should not proceed to the hospital until it has been confirmed that their test is negative.

Due to risks of false negative results, a negative COVID test result does not change the requirement for physical distancing, use of PPE or other IPC measures according to guidelines. Pre-procedural testing for COVID-19 does not replace the need for clinical screening (for COVID-19 symptoms/contacts) in advance of and at the time of admission for the procedure or the need to maintain IPC measures including the use of PPE throughout the patient pathway.

9. Personal protective equipment

Endoscopy staff should follow the guidance issued by the HPSC on the use of PPE while performing endoscopic procedures. The latest guidance about PPE is available online at www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/

Everyone is encouraged to ensure they know how to be fitted for the appropriate size of FFP2 mask. If FFP2 masks are not readily available, please seek advice about alternative options from the hospital's infection control team. The HPSC website has a video about how to put on and take off PPE. See www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/videoresources/

10. Notes on upper GI endoscopy

This includes gastroscopy, ERCP and EUS. Upper GI endoscopy is not currently definitively recognised by the Health Protection Surveillance Centre as an aerosol generating procedure (AGP). However, it is recognised that upper GI endoscopy is one of several procedures which can generate small droplet particles through the induction of coughing and the requirement or oropharyngeal suctioning. Several GI professional societies have drawn attention to concerns regarding these procedures and have advocated the use of respirator masks for healthcare workers involved in such procedures on a precautionary principle. There is no evidence currently that upper GI endoscopy is associated with an increased risk of transmission of respiratory viruses transmitted by droplet spread. For these procedures however, given the proximity to the patient, and the duration of the procedure it may be appropriate to adopt a precautionary approach even though they are likely be of low risk.

For patients attending for upper GI endoscopy without symptoms or signs of COVID-19 infection and where clinical screening (and laboratory screening if deemed necessary) is negative, there is no evidence for routine use of enhanced PPE (e.g. apron, gloves, eye protection, surgical face mask are sufficient) and there is no requirement for a droplet pause.

Standard cleaning procedures should be continued between each procedure. An individual assessment of risk for each procedure (examining factors relating to patient, procedure and staff) may mean enhanced PPE is appropriate, based on a precautionary principle.

The current recommendation for patients with <u>symptoms suggestive of COVID-19 (with viral tests pending or confirmed positive</u>) are summarised below;

- Consideration should be given to deferring the procedure until the COVID-19 infection has been excluded or the infection has resolved (or improved) *; unless there is an immediate clinical need.
- The minimum number of required staff should be present, all wearing enhanced PPE as described below.
- Entry and exit from the room should be minimised during the procedure.
- Trainees should not be involved unnecessarily in the procedure.
- The duration of the procedure should be minimised where possible.
- If access to respiratory masks is limited priority should be given to the staff in closest proximity to the oropharynx.
- Appropriate environmental precautions should be taken following the procedure. The room should be well ventilated, and a gap should be left before any further procedures are performed in the room (‘droplet pause’). The duration of any pause will need to be determined by local environmental assessment of the procedure room. Deep cleaning procedures should be employed before the next procedure.

**viral shedding peaks around the onset of symptoms, if safe to do, delaying by even a few days may reduce the risk of transmission associated with the procedure*

Procedures	AGP Related Increased Risk of Pathogen Transmission Infection Risk	PPE COVID-19 Confirmed or Suspected
Upper GI endoscopy	Plausible hypothesis-no evidence	FFP2 RESPIRATOR MASK Gloves Eye Protection Gown/Plastic Apron

Table 1: Extract from **Use of PPE to support Infection Prevention and Control Practice when performing aerosol generating procedures on confirmed or clinically suspected COVID-19 CASES in a pandemic situation**. v2.0, 23.03.2020 https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/aerosolgeneratingprocedures/

11. Notes on lower GI endoscopy

Lower GI endoscopy including colonoscopy, sigmoidoscopy, proctoscopy is not recognised by the Health Protection Surveillance Centre as an aerosol generating procedure. It is emerging that COVID-19 infection may present with gastrointestinal manifestations. The potential for faecal-oral transmission has been suggested given that the virus is shed in stool, but no documented cases of transmission via the faecal oral route have been reported. There is currently insufficient evidence to recommend the routine use of enhanced PPE measures for lower GI procedures.

For patients undergoing lower GI endoscopic procedures, standard infection prevention control measures should be applied as shown.

Procedure	**AGP Related Increased Risk of Pathogen Transmission Infection Risk**	**PPE COVID-19 Confirmed or Suspected**
Lower GI endoscopy	Not supported by evidence or plausible hypotheses and not recognised by most national agencies Note. RNA detected in Faeces but no cases of COVID-19 transmission by this route have been reported	Gloves Apron Risk Assessment • Eye Protection • Surgical Face Mask

Table 2: **Extract from Use of PPE to support Infection Prevention and Control Practice when performing aerosol generating procedures on confirmed or clinically suspected COVID-19 CASES in a pandemic situation.** v2.0, 23.03.2020 https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/aerosolgeneratingprocedures/

12. The patient pathway during COVID-19

A review of each step of the endoscopy patient pathway should take place to minimise risk and ensure guidance on physical distancing can be maintained. While the unit is operating a designated person should monitor on an ongoing basis that physical distancing is being maintained at each point in the pathway and in each patient area. Delays in an area which may give rise to a backlog must be actively managed to avoid unsafe congestion. Patients should be offered a surgical mask if physical distancing cannot be maintained consistently throughout the patient pathway or if it assists in reassuring patients that the environment is safe. Ensure regular reminders about hand hygiene and respiratory etiquette for patients and staff along the patient pathway (posters/stickers).

Admission & waiting area

Patients should be encouraged to wait remotely (e.g. in their car/vehicle) to be admitted directly to the patient assessment area to minimise patient numbers in the designated waiting area. The designated waiting area should be adapted (either by removing or marking seating) to ensure physical distancing of two metres is always maintained. Develop contingencies in the event of unexpected congestion – identify sub-wait areas that can be used for overflow. Steps should be taken to minimise any staff or other footfall through the waiting area that is not essential to the operation of the service.

Assessment

Patients should have a repeat assessment for symptoms of COVID-19 and for close personal contacts before admission to the unit. Physical distancing of two metres should be maintained in the patient assessment and changing area (remove seating and extra trolleys/close alternate bays to minimise the risk). Ideally the assessment area should not be used for hospital in-patients being brought for endoscopic procedures.

Procedure room

Patients who have confirmed COVID-19 or symptoms suggestive of the infection should be brought directly to the procedure room and should not pass through or use the same waiting and/or assessment area as other patients unless vacant and subject to appropriate cleaning and decontamination. Minimise the number of people in the room during procedures to limit the use of PPE, however participation of trainees in procedures should be permitted unless the patient has confirmed COVID-19. Remove unnecessary items and equipment from procedure rooms and ensure no items are in the procedure room that cannot be decontaminated.

Recovery

Examine the layout of the recovery area to ensure two metre distancing is maintained between patients. Remove extra trolleys, close bays and use markings to create adequate spaces. Patients who are confirmed to have COVID-19 or symptoms suggestive of the infection should be recovered in a separate recovery area (or recovered in the procedure room and returned directly to their patient area). In-patients (irrespective of COVID-19 risk status) undergoing endoscopy should ideally be recovered in a separate area.

Discharge

Ensure prompt staggered discharge of patients. Seating should be removed or marked in the discharge waiting area to maintain physical distancing. Minimise relatives entering endoscopy unit by arranging a pick-up point and time collection at the exit from or just outside the unit.

Environmental considerations

Consideration should be given to performing procedures with confirmed COVID-19 (or symptoms suggestive of the infection with pending test results) in a separate clinical area or a designated procedure room if possible.

Patients use shared toilet facilities in endoscopy units both prior to and following endoscopic procedures. Toilets do not need to be cleaned after every use but procedures for enhanced cleaning of shared toilets should be considered. Reminders about good hand hygiene should be displayed prominently in all shared toilets.

13. Useful links

1. Low risk of COVID transmission in GI endoscopy
   https://gut.bmj.com/content/early/2020/04/22/gutjnl-2020-321341

2. BSG Service Recovery Documents; The What, When and How
   https://www.bsg.org.uk/covid-19-advice/service-recovery-documents-the-what-when-and-how

3. ESGE and ESGENA Position Statement on gastrointestinal endoscopy and the COVID-19 pandemic
   https://www.esge.com/esge-and-esgena-position-statement-on-gastrointestinal-endoscopy-and-the-covid-19-pandemic/

4. AGA /DHPA joint guidance for the resumption of elective endoscopy
   https://www.gastro.org/press-release/aga-dhpa-joint-guidance-for-resumption-of-elective-endoscopy

5. ASGE Guidance for resuming GI endoscopy and practice operations after the COVID-19 pandemic
   https://www.asge.org/docs/default-source/default-document-library/asge-guidance-for-reopeningl_4-28-2020.pdf

6. JAG guidance to assist endoscopy services to adapt their environment following the COVID-19 pandemic. https://www.thejag.org.uk/covid-environment-guidance

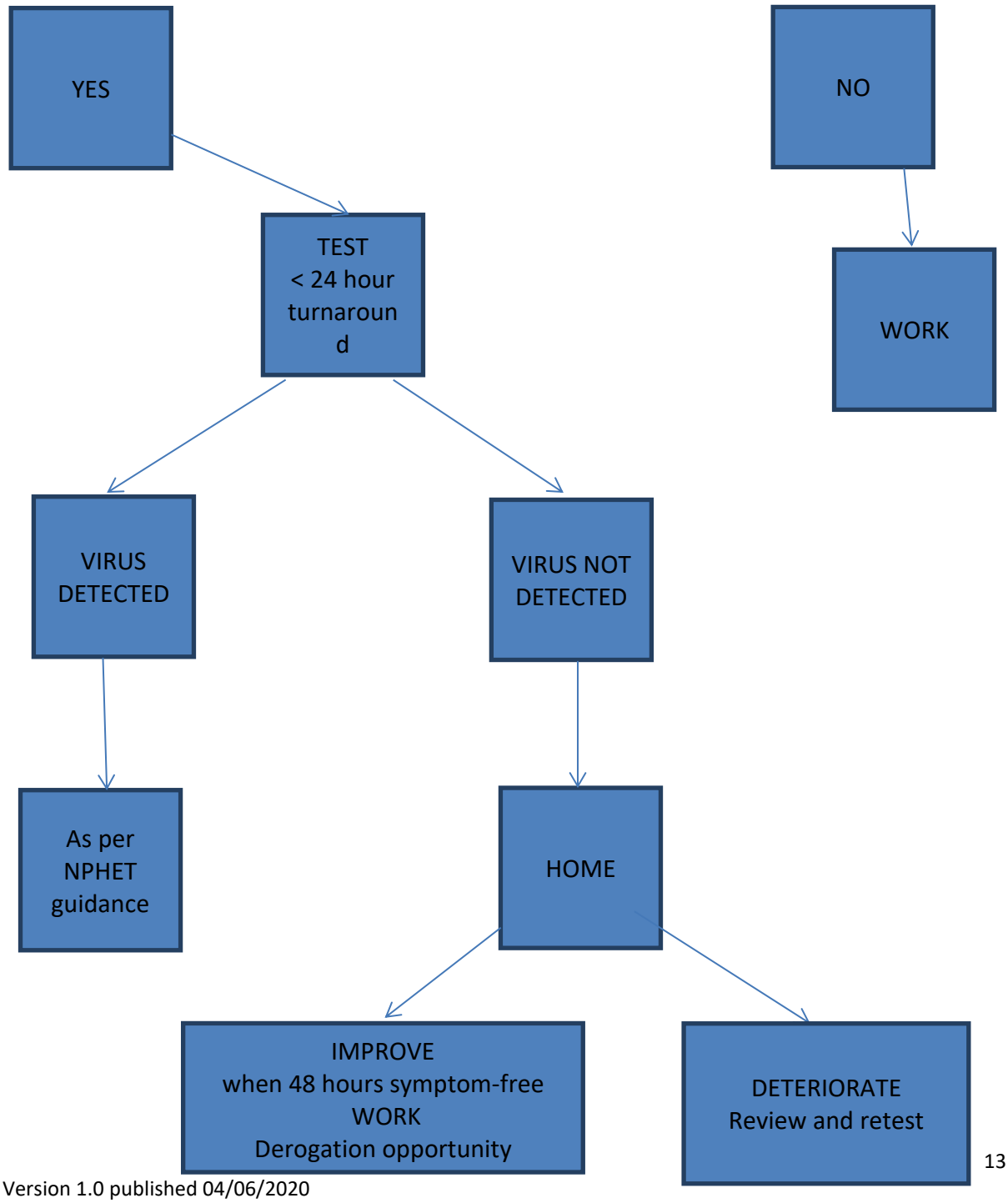
7. Covid-19 HSE Clinical Guidance and Evidence Repository
   https://hse.drsteevenslibrary.ie/Covid19V2/home

7.1 The Gastroenterology and Hepatology section includes
- Guidance for Nutrition relating to COVID-19 infection
- Guidance for Inflammatory Bowel Disease (IBD) services relating to COVID-19
- Updated consensus guidance for the care of liver patients during COVID-19
  https://hse.drsteevenslibrary.ie/Covid19V2/gastroenterology

Appendix 1: Healthcare worker algorithm for pre-work screening

This algorithm has been approved by Dr Vida Hamilton, NCAGL Acute Operations, and NPHET (01.05.2020)

Most common:		
Cough	Shortness of breath	Myalgia
Fatigue	Fever > 37.5°C	
Less common:		
Anorexia	Sputum production	Sore throat
Dizziness	Headache	Rhinorrhea
Conjunctival congestion	Chest pain	Haemoptysis
Diarrhea	Nausea/ vomiting	Abdominal pain



Appendix 2 – Suggested Prioritisation of GI Endoscopy Procedures

This is a suggested framework to assist in prioritisation and scheduling and does not replace the need for clinical judgement and the triage of all cases by an experienced clinician.

Emergency procedures	**Level 1 - Highest Priority** *Usual Target Within 24hrs* Acute GI bleeding (high risk)
Emergency procedures	**Level 2 - Higher Priority** *Usual Target Up to 72hrs* Acute GI bleeding (other than high risk) Upper GI foreign bodies requiring removal/food bolus Obstructing upper or lower GI lesion that requires stenting/therapy ERCP for acute biliary obstruction requiring stenting/cholangitis Endoscopic drainage of infected pancreatic fluid collection Urgent inpatient placement of feeding tube or device
Patients who are triaged as urgent (P1)	**Level 3 - High Priority** *Usual Target Up to 1 month* Urgent (P1) out-patient gastroscopy and/or colonoscopy (see HIQA Guidance documents) EUS for cancer staging/treatment planning Planned EMR/ESD for high colonic risk lesions New suspected acute colitis or new IBD diagnosis Variceal banding in high risk cases (recent bleeding) Small bowel endoscopy for therapy (recent or recurrent bleeding)
Patients who are triaged as routine urgent (P2)	**Level 4 - Lower Priority** *Usual Target 1-3 months* Routine symptomatic (P2) gastroscopy or colonoscopy following clinical re-triage and validation (including FIT testing if indicated) – See HIQA Guidance documents Disease assessment for uncontrolled IBD High-risk follow-up and repeat scopes –e.g. gastric ulcer healing, 'poor views', check post therapy for high risk lesion e.g. EMR/RFA/polypectomy

Contd…	High risk surveillance (e.g Familial cancer syndrome/PSC/Barrett's with dysplasia) Scheduled variceal banding (no recent bleeding) and follow up for history of varices EUS for biliary dilatation, possible stones, submucosal lesions, pancreatic cysts without high-risk features ERCP: for stones where there has been no recent cholangitis and/or a stent is in place; therapy for chronic pancreatitis; stent removal/change; ampullectomy follow-up
Patients who are on planned procedure lists	**Level 5 - Lowest Priority** *Usual Target Over 3 months* All Routine Endoscopic Surveillance including: Colonic polyp surveillance (routine) IBD (without dysplasia or history of PSC) Barrett's or Gastric IM (without dysplasia) Primary surveillance for varices Other low risk surveillance procedures Endoscopic assessment of asymptomatic patients based on positive family history only (other than in familial cancer syndrome)

Ends