



## ***The New Zealand Society of Gastroenterology Position Statement on Provision of Gastrointestinal Endoscopy in the COVID-19 era.***

*The New Zealand Society of Gastroenterology (NZSG) is aware of widespread concerns raised by our members in the COVID-19 era. This includes the care of complex patients, management of immune suppression and provision of gastrointestinal (GI) endoscopy. There is potential risk of viral transmission as GI endoscopy is regarded as an aerosol generating procedure (AGP). Staff availability and the responsible and appropriate use of personal protective equipment (PPE) are further challenges we face. This statement has been discussed with stakeholders including the Ministry of Health (MOH) team, NZSG Members and Surgeons who undertake endoscopy. The NZSG is grateful for the extensive collaboration to date under short notice and has incorporated feedback into this Position Statement.*

The following guidance is an adaptation for Aotearoa New Zealand, based on British Society of Gastroenterology (BSG) statements on endoscopy in the COVID-19 pandemic, initially published 22 March 2020 with the permission of Dr Cathryn Edwards, president of BSG <sup>1</sup>. NZSG endorses the He Tangata, He Tangata statement recently published by the Māori Health Committee of the Royal Australasian College of Physicians (RACP) <sup>2</sup>. NZSG hopes this Position Statement to be the start of meaningful korero and partnership with Māori in this rapidly evolving and complex environment.

COVID-19 confronts us all with challenges and uncertainty. Decisions around what is best for patients, the population at large and healthcare staff involve a careful weigh-up of risks and benefits, incorporating the community prevalence of COVID-19 as well as the flow-on effect to DHB services. As a result of the review of international experience and discussions with key stakeholder groups, the NZSG is publishing this advice to help teams running Gastroenterology and GI Endoscopy units to plan their activity during the COVID-19 outbreak, and in the peri-COVID-19 era. These recommendations have been pegged to the DHB Alert System <sup>3</sup> for clarity. We will endeavour to update this Position Statement as further national and international updates and advice are announced. Korero is welcomed and encouraged.

The BSG document on which this is based was developed and is supported by:

- British Society of Gastroenterology (BSG)
- Joint Advisory Group (JAG)
- The Association of Coloproctology of Great Britain and Ireland (ACPGBI)
- Association of Upper Gastrointestinal Surgeons (AUGIS)
- Pancreatic Society of Great Britain and Ireland (PSGBI)
- UK and Ireland EUS Society (UKI-EUS)

It is also supported across the devolved nations by:

- Scottish Society of Gastroenterology (SSG)
- Welsh Association of Gastroenterology and Endoscopy (WAGE)
- Ulster Society of Gastroenterology (USG)

The BSG have also shared it with the Irish Society of Gastroenterology (ISG).

NZSG will circulate this document amongst its membership and similar organisations and share on our website.

## Background

The general strategic intent expressed by the NZ Government is to reduce any non-essential exposure to the COVID-19 virus, and to take all reasonable measures to limit its spread. Under the Community Alert Level 4 <sup>4</sup>, people can access essential and necessary medical care. Where needed, this includes being able to travel locally or regionally to access appropriate treatments. It is anticipated that there will be increased access to healthcare services once COVID-19 spread is under control.

We acknowledge the extraordinary mahi/work and leadership of our prime minister, Rt Hon Jacinda Ardern, our government, the Ministry of Health and indeed our whole motu/nation in dramatically reducing the dreadful progression of COVID-19 in Aotearoa New Zealand. Every day, we see and grieve for the consequences of less proactive approaches around the world.

## Introduction: Gastroenterology in the COVID-19 era

Gastroenterology teams manage acute life-threatening emergencies, chronic diseases and the provision of diagnostic and therapeutic endoscopy for cancer diagnosis and risk management, in COVID and non-COVID scenarios. Acute life-threatening emergencies include GI bleeding and infection, often requiring in- and out-of-hours endoscopy and senior decision making. Chronic diseases such as inflammatory bowel disease, liver cirrhosis and liver transplant require specialist team input to maintain stability, as people with these conditions can deteriorate rapidly into life-threatening situations both related and not related to COVID-19, for which NZSG is receiving and developing guidance <sup>5,6,7,8</sup>. GI endoscopy procedures are a vital part of GI healthcare including diagnosing cancer, treatment and cure of cancer and surveillance of people at risk of cancer <sup>9</sup>.

The NZSG aims to assist those involved in decision-making for patients with gastroenterology conditions to keep our patients, nursing and medical staff safe and cared for in these unprecedented times.

Under Alert Level 4 <sup>3</sup> the Ministry of Health directed reduction in all elective health services, including the suspension of invitations to participate in the National Bowel Screening Programme (NBSP).

Following korero/conversations with leaders, key stakeholders and opinion leaders involved in GI endoscopy, there is shared agreement of an urgent need to plan a path for gastroenterology and endoscopy activity over the coming weeks and months.

It is important in Aotearoa New Zealand that our centralised, fairly nimble healthcare system responds appropriately to each DHB Alert Level and maintains essential services when able. The NZSG anticipates that larger District Health Boards (DHBs) would be able to offer a higher level of specialist GI care and endoscopy services in a higher DHB Alert for longer than smaller, regional DHBs who have a more vulnerable, multi-tasking gastroenterology workforce, although the reverse has been evident in the UK where NHS trusts in London are overwhelmed by COVID-19 patients due to community spread.

NZSG acknowledges that Māori are disproportionately affected by many cancer diagnoses, including stomach and bowel cancers and already experience significant barriers in access, diagnosis, and treatment <sup>10,11</sup>.

In times of resource constraint, prioritisation and rationing NZSG shares concern that inequity develops further as services are prioritised and redirected. Existing inequities will be compounded and will deteriorate further. It is essential that equity is centralised in all diagnostic and treatment frameworks which are developed in response to the COVID pandemic <sup>2</sup>. It is also essential that barriers to care are identified and addressed, including transport and accommodation<sup>9</sup>.

## Immediate priorities

As Aotearoa New Zealand moves to lower alert levels, there are four particular groups of patients the NZSG considers high priority:

- Those who have participated in the National Bowel Cancer Screening Programme (NBCSP) and are Faecal Immunochemical blood Test (FIT) positive and have had colonoscopy deferred. These people have a 3 to 8% risk of bowel cancer (local data).
- Symptomatic patients graded pre-COVID-19 using regional guidelines waiting for urgent (P1) and high priority (urgent P2 / P2 B1) cases <sup>12</sup> (Figure 1).
- Those on the High Suspicion of Cancer (HSC) or Faster Cancer Treatment (FCT) waiting lists.
- Tangata whenua / Māori – ensuring an equity lens is applied and underpins all decision making. <sup>2</sup>

The NZSG has seen a reduction in gastroenterology referrals from other services and primary care over the Level 4 Lockdown period (Figure 2). For example, at Waitemata DHB gastroenterology referrals have dropped from the usual 400 per week to 95 per week over the Lock Down (local data). An anticipated consequence – a rapid uptick in referrals as the community recovers, with a bulge of unwell and at-risk patients in coming weeks and months.

If community spread of COVID-19 is such that DHBs head into Level 3 (Orange) and Level 4 (Red) the NZSG recommends gastroenterology services utilise the BSG triage criteria of 'Needs to Continue', 'Defer until Further Notice' and 'Needs Discussion' <sup>1,3</sup> (Figure 3). 'Needs Discussion' refers to patients with a high likelihood of cancer who are vetted case-by-case at

a senior, multi-disciplinary level on a case by case basis. This is to prioritise tests such as GI endoscopy and radiology with factors such as clinical need, clinical benefit, reducing unacceptable risk, limitations of facilities, staff shortage, PPE and adapting our approach in maintaining equity for Māori. Communication of these factors to patients and whānau, and working in partnership under difficult circumstances, will be vital<sup>9</sup>.

## Discussion and Recommendations

Based on the evidence available to us at this time, the NZSG proposes the following actions and recommendations to help flatten and delay the outbreak curve for COVID-19, whilst continuing to provide specialist care.

### Infection prevention and control considerations

Minimise COVID-19 transmission risk to other patients and staff, including strict adherence to PPE use and theatre space recommendations<sup>5,13</sup>. Internationally, such practices have reduced staff illness from COVID-19 and the need for staff to adopt forced self-isolation (correspondence from Singapore units). Already in New Zealand, teams of healthcare workers in hospitals have been stood down after exposure to COVID-19 in hospitals with a small number of staff to date contracting the virus from work in residential homes or hospitals<sup>14,15</sup>. Staff availability has declined in settings around the country as infection and self-isolating measures, together with requirements for childcare and redeployment have been implemented (local data). Looking ahead, available staff may require deployment to procedures where endoscopy is essential and will change the management of patients.

Asymptomatic COVID-19 infected patients are a known source of infection. The risk of faecal transmission is plausible and possible<sup>16,17</sup>. NZSG regard all GI endoscopy procedures as aerosol generating procedures (AGP), and have released a recommendation for Personal Protective Equipment (PPE) for endoscopy staff<sup>5</sup> that utilises a COVID-19 streaming tool (Figure 4)<sup>18</sup> as well as the DHB Alert System<sup>3</sup>.

There are serious consequences for the provision of endoscopy services to our patient population with staff illness, particularly in smaller centres as described. Careful screening of all patients<sup>16,18</sup>, adequate training in the use of PPE<sup>1,5,13</sup> (including hand hygiene, working in teams and meticulous adherence to donning and doffing) is vital as part of the wider infection and prevention control strategy to limit spread of the virus.

### Management of resource considerations

Stocks of standard and enhanced PPE are limited and need to be prioritised, both for our own patients and for other areas of the hospitals.

The supply of devices and consumables (e.g. injection needles, banding kits, stents) may not be guaranteed as supply chains are placed under stress within NZ and abroad. These items need to be carefully husbanded so they are used in cases where they will be most effective.

## Patient journey considerations

Endoscopy is a major cancer diagnostic service. Internationally, patients with GI cancer have been unable to be listed for major surgery because of pressure on staff availability, theatre space and ICU and HDU beds for post-operative care<sup>1</sup>. For this reason, were a DHB to reach Orange or Red Alert, the NZSG recommends urgent suspected cancer patients are assessed on a case by case basis and endoscopy is undertaken where the clinical need is a priority<sup>9</sup> (Figures 2 & 3).

## Decision making on Endoscopic Procedures

The NZSG COVID-19 GI Endoscopy Priority Tool (figure 2) shows stepwise prioritisation of acute need as the DHB Alert System steps up, as a response to increased COVID-19 cases in our hospitals, and increased community spread of COVID-19. Conversely, as the DHB Alert System steps down, endoscopy activity can be increased as staffing and resource allows. This list may require modification as the COVID-19 epidemic evolves, and new evidence becomes available. For example, the BSG have published comprehensive Service Recovery Documents that include mapping care and prioritisation to World Health Organisation (WHO) pandemic phases, including post peak and post pandemic<sup>19</sup>.

NZSG anticipates that DHBs will adapt to local circumstances, and departments within those DHBs further adapt with available resource. For example, a DHB may be working at DHB Alert 2 (yellow) but a given gastroenterology department may in effect be able to work at DHB Alert 3 (orange) because of capacity or resource constraints (Figure 2).

## Capacity Triggers<sup>9</sup>

MOH has further defined working in a resource constrained environment using Capacity Triggers in advice to DHBs for Cancer Services Guidance. A service can operate at Green Alert when maintaining >75% of service capacity, Yellow Alert when there is a fall to <75% capacity, Orange Alert when there is a fall to <50% capacity and Red Alert with a fall to <25% service capacity. MOH offers a process for changing levels where if a service feels they need to move their service (but not the whole-of-hospital) up the alert level, two actions are required:

1. Notification of their own DHB Management of this need and the proposed impact on patients
2. Notify the chair of the relevant national working group and alert the Cancer Control Agency

The MOH Advice states that regular meetings and clear channels of communication between key working groups would aim to provide support and consistency across units.

NZSG has potential to work with MOH and the CCA to adapt guidance for the triage and prioritisation of GI endoscopy into existing frameworks.

## General operational considerations

- **Restricting numbers of staff in rooms** for all procedures – e.g. trainees or supernumerary endoscopy nurses should not be in the endoscopy room for a ‘Blue or Yellow’ stream

patient at high risk of COVID-19 infection. NZSG is working with stakeholders on a flexible position statement to support endoscopy training in the peri-COVID era.

- **Reduction in the previous standard number of points booked** on a list to enable ongoing adherence to careful screening, distancing, hygiene and PPE required to minimise COVID-19 spread. NZSG recommends a 20-30% reduction in standard points booked (for example, from 12 to 9 points for a routine list, or from 5 to 4 screening colonoscopies) once departments are working at Alert Level 2 (Figure 2).
- **Limiting advanced endoscopy cases to a smaller number of proceduralists**, based in Endoscopy and ensuring that they are fitted appropriately for enhanced PPE.
- **Ensuring that gastroenterologists and endoscopists are available with planned release from other duties**, such as general medicine and general surgery. The development of a 'pod' rota system, especially in smaller centres. This will help mitigate existing inequity between New Zealanders living in peripheral centres (including a higher proportion of Māori), where there is a smaller, and therefore more vulnerable, pool of endoscopists. Alternatives might be to move high risk gastroenterology patients around the country, as might transferring endoscopy teams to meet high regional need in a time of crisis.
- **Assessing stocks of consumables and devices daily** – Without panic buying. Keep in touch with MOH suppliers and local representatives regarding the supply chain. This includes endoscope cleaning materials.
- **Considering alternatives and innovations for diagnostic testing** – For example, Calprotectin; radiology; step-wise FIT testing <sup>1</sup>; telephone re-triage of (for example) high risk of cancer referrals.
- **Vulnerable clinicians** – Healthcare providers at risk of developing serious disease (e.g. age over 60, underlying comorbidities, immunosuppression) should be assigned to work that limits their exposure in a moderate or high-risk environment, including telemedicine responsibilities, triaging of clinic and endoscopy referrals.
- **Multidisciplinary meetings (MDM)** – The NZSG gives a high priority to enable clinicians to continue MDM for patients affected by cancer and non-cancer gastroenterological diagnoses. Constrained care can deviate from usual pathways, so input from multiple clinicians is vital <sup>9</sup>. NZSG notes that virtual meetings have had some success, but technical glitches are occurring (personal correspondence). Resource to improve IT systems to allow high quality video conferencing (VC), training in the correct use, as well as making available meeting spaces where social distancing and hand hygiene protocols can occur is critical to the success of these meetings.

## Important Notes

- This **Position Statement is intended as a guide** to clinical teams when planning during the current emergency. It is neither exhaustive nor prescriptive.
- **The COVID-19 situation continues to evolve rapidly.** Clinicians and managers need to check regularly and look for updates and briefings from their DHB, the MOH and NZSG.
- **Teams need to consider resources - both staff and equipment** (PPE and endoscopy kit) – when planning. Think well ahead and practice in teams. Prepare staff for undertaking endoscopy for high risk COVID-19 patients, including in a theatre environment with maximum possible infection control.
- **Systems must be in place to keep records and communicate plans for at risk, deferred or cancelled patients** so that *either* alternative arrangements (e.g. clinic follow up, radiological imaging) *or* rebooking of endoscopy can occur. It is vital that these systems include transparent communications with the patient, referring clinician and primary care. Attempts should be made to ensure equity from all perspectives and these data should be audited.
- **The NZSG requests that particular emphasis is placed on prioritizing Māori**, as means of addressing existing inequity under the Treaty of Waitangi, as restrictions ease in the recovery phase.
- **Team work at multiple levels with related disciplines and departments** such as Radiology, Surgery, General Medicine and Oncology over the COVID-19 era is essential now, and in our immediate and long-term future.

## Conclusion

COVID-19 has placed huge demands on all of us in Aotearoa New Zealand, including people working on the front line, those in medical leadership positions, Government, and the MOH. The NZSG fully supports the strong leadership from Government and the MOH. We have followed international GI endoscopy and gastroenterology practice over this pandemic to develop this Position Statement, together with existing frameworks and alert levels. Much like our colleagues overseas, NZSG is a professional membership society in touch with the realities of our workforce on the ground<sup>20</sup>. The NZSG appreciates that more evidence around gastroenterology and gastrointestinal endoscopy in the peri-COVID era will take time to fully emerge. Our goal in producing this Position Statement is to support a nimble and cohesive response to meet the immediate needs of gastroenterology teams and patients in Aotearoa New Zealand.

The NZSG encourages all members to provide korero/feedback on literature, personal experience and wisdom on any issue pertinent to our specialty.

We understand how difficult these times are for everyone. We wish everyone the best in coming weeks and will continue to support all our members, nursing staff and patients as much as possible.

E waka eke noa. Stay safe everyone.

**Malcolm Arnold**, FRCP, FRACP. NZSG President

**Zoë Raos**, FRACP. NZSG President Elect

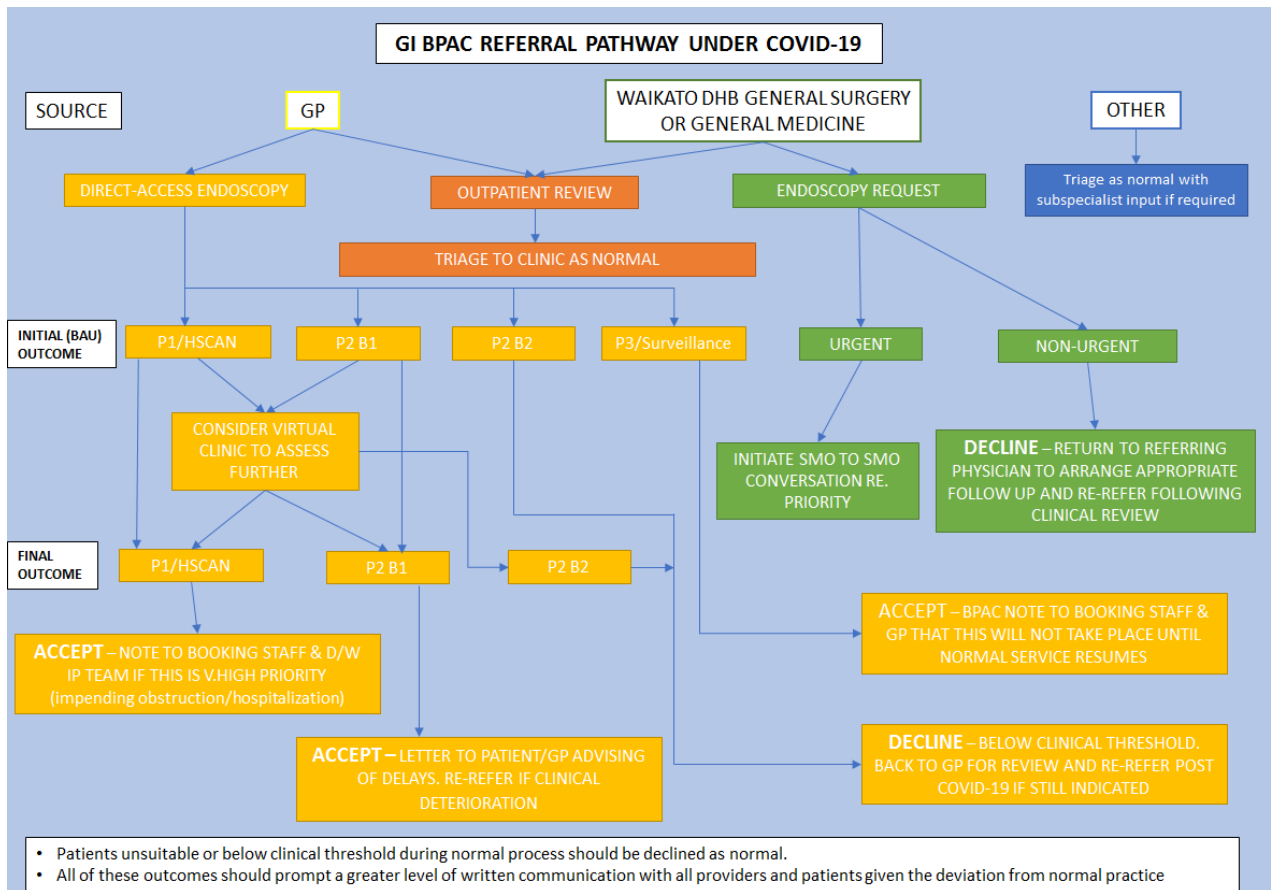
With particular thanks to key contributors:

- Clarence Kerrison, NZSG Trainee
- Nathan Atkinson, FRACP. NZSG Member
- Frank Weilert, FRACP. NZSG Executive co-opted expert – Endoscopy

The NZSG executive are grateful to the original authors of the BSG paper:

- Ian Penman, Vice-President Endoscopy, BSG
- Cathryn Edwards, President, BSG
- Mark Coleman, Chair, JAG Endoscopy
- Alastair McKinlay, President Elect, BSG





**Figure 1: Waikato DHB GI BPAC Referral Pathway under COVID-19**

BPAC – Best Practice Advocacy Centre. P1 – urgent, within 2 weeks. P2 – semi urgent, within 6 weeks. P2 B1 – higher priority or more urgent clinical need (in some DHBs called ‘prioritised P2’). P2 B2 – standard. P3 – Surveillance within 84 days of planned date. This Waikato DHB algorithm is based on MOH criteria and can be adapted.

## NZSG COVID-19 GI ENDOSCOPY PRIORITY TOOL

New Zealand Society of Gastroenterology

No DHB Alert	Alert 1: Green	Alert 2: Yellow	Alert 3: Orange	Alert 4: Red
Business as Usual	Adapted Endoscopy	Reduced Endoscopy	Significantly reduced Endoscopy	Emergencies only:
Usual service  Reduction in duties to allow for planning	Inpatient endoscopy prioritised  Symptomatic P1 & all P2 endoscopy  P3 Surveillance endoscopy (1 to 3y group)  NBSP FIT tests continue NBSP colonoscopy  COVID-19 related training and readiness prioritised	Heavily prioritised inpatient endoscopy  Symptomatic P1 & P2 B1 (prioritised) endoscopy  P3 Surveillance endoscopy 1y e.g. HNPCC  NBSP FIT positive colonoscopies  Advanced endoscopy continues if capacity	SMO streaming and decision making for all cases  Heavily prioritised inpatient endoscopy  Symptomatic P1 P2 B1 (prioritised)* only if capacity  Advanced endoscopy continues if benefit > risk & capacity for managing complications	Streaming and SMO decision making for each case into: <ul style="list-style-type: none"> <li>• 'Needs to continue'</li> <li>• 'Defer until further notice'</li> <li>• 'Needs discussion' (group consensus)</li> </ul>
			All surveillance endoscopy P2 B1 (prioritised)* NBSP colonoscopy	Non life-preserving endoscopy
<b>What stops:</b>	P3 5y surveillance			
<b>What continues: Manaaki tangata, tiriti focus, equity, partnership with Māori</b>				

**Figure 2: NZSG COVID-19 GI Endoscopy Priority Tool** <sup>1,2,3</sup>

P1 - Urgent referrals. P2 - Semi-urgent referrals. SMO - Senior Medical Officer. NBSP - National bowel cancer screening program. FIT - Faecal immunohistochemical test.

To achieve equity, departments *increase* priority for Māori. Kei te tino pai ki a korero. Gastroenterology and GI Endoscopy Departments may adjust level according to constraints <sup>9</sup>. For example, a DHB may operate at Level 2 (yellow); constraints of staffing means a department is able to work using the Level 3 (orange) until constraints eased.

## Adapted BSG endoscopy triage tool for COVID DHB ALERT: RED

Needs to continue

Defer until further notice

Needs discussion: case-by-case, SMO led

GI Endoscopy is an AGP

Careful consideration must be made on the risk: benefit ratio for each case

All deferred cases must have systematised, recorded and audited plan for reinstatement

See NZSG guide on PPE & theatre environment recommendations during DHB: Code Red

- **Severe Upper GI bleeding**
- **Acute oesophageal obstruction** – foreign body, food bolus, essential stent (cancer, stricture).
- **Acute cholangitis/jaundice** secondary to malignant/benign biliary obstruction
- **Acute biliary pancreatitis and/or cholangitis** with stone and jaundice
- **Infected pancreatic collections**
- **Urgent nutrition support** – PEG/NJ/NG
- **Endoscopic therapy** for collections/perforations/leaks

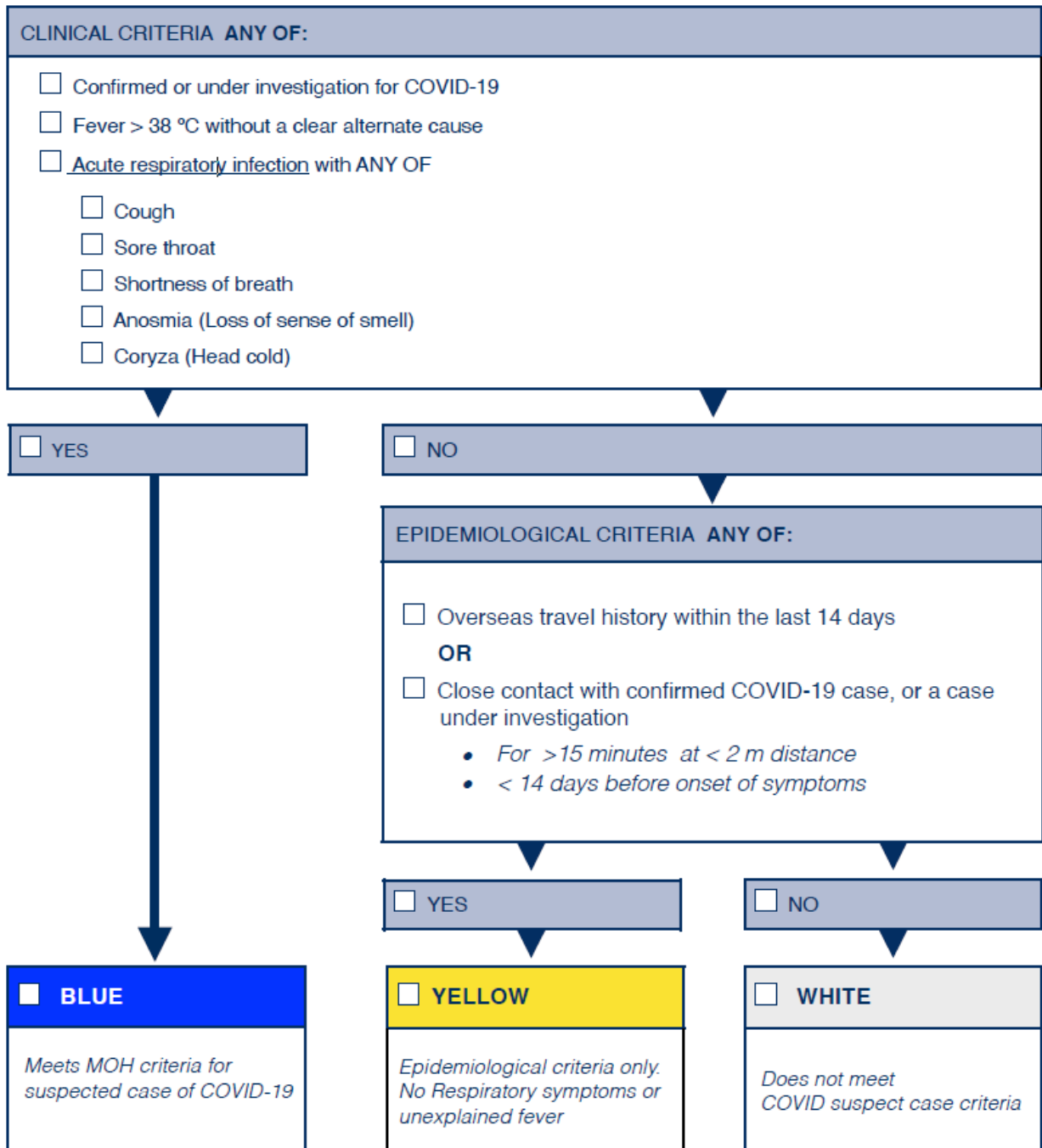
- **Elective intervention:** e.g. PEG, stricture dilatation, APC, RFA, POEM, pneumatic dilatation, ampullectomy
- **Surveillance:** Polyp follow up, IBD, low risk Barrett's. Annual surveillance e.g. Lynch /polyposis syndromes, IBD with PSC
- **EUS for 'benign' indications:** Biliary dilatation, stones, submucosal lesions, pancreatic cysts without high-risk features
- **Low-risk ERCP:** Stones with no cholangitis and stent in place; therapy for chronic pancreatitis; metal stent removal/change; ampullectomy follow up.
- **Low-risk follow-up:** e.g. oesophagitis or gastric ulcer healing, 'poor views', check post therapy e.g. EMR/RFA/polypectomy (unless felt to be clinically high risk neoplasia still present)
- Routine/ non urgent Small bowel endoscopy
- FIT positive bowel screening colonoscopy
- Clinical trial endoscopy
- Bariatric endoscopy

- **Urgent "likely cancer" referrals** – A group of consultants reviews and triage these referrals, reserving endoscopic procedures for those judged to be highest priority
- **Planned EMR/ESD** for complex polyps/ high risk lesions
- **New suspected IBD** – e.g. acute colitis
- **Cancer staging EUS** – biopsy and/or staging
- **SB endoscopy/capsule** - transfusion dependent bleeding / suspected SB cancer

What continues: Manaaki tangata, tiriti focus, equity, partnership with Māori

**Figure 3: Adapted BSG endoscopy triage tool for COVID-19 DHB alert red (stage 4) <sup>1</sup>**

AGP - aerosol generating procedure. PPE - personal protective equipment. SMO - senior medical officer.



**Figure 4: COVID-19 patient screening tool.**

Adapted from WDH B documentation.

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