NEW ZEALAND SOCIETY OF

OTOLARYNGOLOGY HEAD & NECK SURGERY

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NZSOHNS GUIDELINES ADDRESSING THE COVID-19 PANDEMIC:

Moving to Level 3

On 20th April, the Prime Minister announced that New Zealand will transition to Alert Level 3 from 11:59pm on Monday 27th April. As part of this transition the NZSOHNS COVID-19 subcommittee has met to review its recommendations to Members in light of the evolving epidemiology of the pandemic.

NZSOHNS considers that the planned re-introduction of elective surgery should be conducted in a staged and controlled process. This will balance the need to maintain capacity to treat COVID-19 patients with the need to increase the availability of elective surgery in a safe and equitable way, considering the well-being of patients and health care workers.

NZSOHNS also acknowledges the very significant contribution of the Australian Society of Otolaryngology-Head & Neck Surgery (ASOHNS) to the writing of these guidelines, which have been adapted to meet the current COVID-19 situation in New Zealand.

NZSOHNS continues to monitor the progress of the pandemic and its impact on the community. In conjunction with the Ministry of Health (MoH), the Royal Australasian College of Surgeons (RACS) and ASOHNS, the Society has reviewed the evolving national and international scientific information related to the virus and the threats it poses to patients and health care workers.

The New Zealand Government introduced lock-down restrictions in an effort to prevent community spread of COVID-19, and the willingness of New Zealanders to abide by these rules of social distancing, hand and surface hygiene and quarantine is laudable and has helped to achieve the excellent level of virus containment.

Public Health data show that the prevalence (total number of cases per population to date) of the SARS-CoV-2 virus in the New Zealand community at present is approximately 30 per 100,000 of population. The incidence (that is, total number of new cases per unit of time) is thus much lower than this.

The Office of the Chief Medical Officer of New Zealand advises that at these very low levels using triage symptoms to screen patients will very accurately predict the ability to identify a patient with Covid-19 disease. The risk of a patient with no MoH triage factors subsequently developing Covid-19 positivity is estimated at 1-3 per 100,000.

Standard droplet precautions are thought to provide approximately 90% protection against transmission in a known positive patient, and more rigorous levels of PPE increase this protection, but do not completely obviate risk.

Given the current low prevalence of COVID-19 within Australia, the Office of the Chief Medical Officer of Australia made the following recommendation:

"There is no indication to conduct COVID-19 testing preoperatively in patients with no triage symptoms of COVID-19."

This is echoed by Dr Ian Town, the Chief Science Advisor to the New Zealand Ministry of Health. This effectively indicates that as a result of the excellent outcome of self-isolation there is no reason to suspect that someone who has no risk factors on screening will carry COVID-19.

However, NZSOHNS acknowledges that despite this there will be ongoing concerns amongst surgeons, anaesthetists, theatre nurses and other hospital staff owing to the nature of aerosol generating procedures (AGPs) routinely performed by members of our Society and owing to the varying rates of asymptomatic carriage documented in various studies worldwide. NZSOHNS supports data collection into asymptomatic carriage of SARS-CoV-2 in the New Zealand population, with a particular emphasis on elective surgery patients with planned AGPs and feels this will better inform testing policy as New Zealand moves to lower alert levels.

These concerns were raised with the Chief Science Advisor who acknowledged that given the absence of data, a precautionary approach seemed sensible for our sub-specialty and that a case could be made for testing to enable risk management for all involved. Consequently, during Level 3, **NZSOHNS recommends that for high risk surgical AGPs, patients are screened by a single COVID-19 swab performed at least 48 hours prior to surgery**. However, the Society also recognises that DHBs are constrained by prior advice provided by the Ministry of Health and this may not be readily available to all clinicians.

Personal protective equipment is a critical element of staff safety and the use of PPE should be in accordance with national guidelines. In summary these are:

In patients at low risk of COVID-19 infection (screened "green" or negative swab), **standard** universal precautions and a standard surgical mask worn well, with careful donning and doffing techniques, is sufficient for all procedures. The MoH recommends that *"for Otolaryngology procedures the advice that is summarised in the document (Full PPE) is sensible for higher risk procedures".* However, what constitutes higher risk procedures has not been fully defined. NZSOHNS Council has consulted with experts and colleagues in Australia.

The Society considers that, because of the effectiveness of self-isolation in the control of community spread, surgical teams should be confident that a negative screening outcome is sufficient to grant confidence that the patient does not harbour COVID-19, and that surgeries without AGP can proceed with standard universal precautions

Current Ministry modelling suggests that for a MoH screening negative patient the risk of viral transmission is low, however, given the unanswered questions on the extent of asymptomatic carriage and the attendant risks to the extended surgical team **NZSOHNS advocates for pre-operative COVID-19 testing with a single swab obtained at least 48 hours prior to surgery where the risk of significant aerosol or droplet generation is deemed high**.

For **patients with probable or confirmed COVID-19 infection (screened "red" or positive swab)**, surgery should be deferred where possible until they recover fully from COVID-19 disease, and consideration given to consultation with the local Infectious Diseases team on appropriate timing of intervention.

For **patients with probable or confirmed COVID-19 infection** for whom an AGP is absolutely necessary, maximal PPE should be worn, including an N95 respirator, eye protection and a fluid impervious gown. NZSOHNS recognises that PAPR is not widely available in New Zealand hospitals, but if available, its use should be considered instead of an N95 respirator.

NZSOHNS encourages members to consider modification of techniques to minimise aerosol exposure.

SURGICAL PRIORITISATION

The NZSOHNS Council agrees with Government that that the selection of patients to undergo elective surgery is ultimately a clinical decision. NZSOHNS encourages members to understand Covid-19 prevalence in their region, to be aware of the occurrence of new clusters of COVID-19, and to incorporate public health information into their clinical judgement and decision making.

The following case categorisation lists are provided as a *guide* to the clinical priority of diseases/disorders and procedures. As New Zealand transitions to Level 3, NZSOHNS recommends that the focus should be directed to **Category 1 cases** and **selected Category 2 cases where resource permits**. Category 3 cases should continue to be deferred until the National Alert Level is further stepped down by the Government to ensure that resource is not diverted away from Pandemic containment.

NEW ZEALAND SOCIETY OF

OTOLARYNGOLOGY HEAD & NECK SURGERY

PAEDIATRIC ORL

CATEGORY 1
Airway compromise including inhaled/ingested foreign bodies
Malignancy
Bleeding not controlled with conservative treatment
Infection not responding to conservative treatment

CATEGORY 2
Acute or chronic suppurative otitis media **with** complication(s)/cholesteatoma
Tonsillectomy and/or adenoidectomy for clinically moderate-severe OSA
Middle ear ventilating tubes +/- Adenoidectomy for significant protracted hearing loss
Cochlear implantation or SNHL following meningitis, or after a failed implant
Benign parotid, thyroid and other head and neck masses

CATEGORY 3
Infective or inflammatory disease that may be temporised by medication (e.g. recurrent acute tonsillitis / sinusitis / allergic rhinitis)

OTOLOGY

CATEGORY 1
Malignancy involving temporal bone
Chronic suppurative otitis media/cholesteatoma **with** complications

CATEGORY 2
Chronic suppurative otitis media (unstable) or cholesteatoma
Middle ear ventilating tubes for significant protracted hearing loss
Bilateral hearing loss: surgery for implantable hearing assistive devices or ossicular reconstruction

CATEGORY 3
Chronic suppurative otitis media (stable)
Unilateral hearing loss: surgery for implantable hearing assistive devices or ossicular reconstruction

RHINOLOGY

CATEGORY 1
Bleeding not controlled with conservative treatment
Infection not responding to conservative treatment and/or with complication(s) or high risk of complication(s)
Sinonasal malignancy
Biopsy for unilateral sinonasal disease with suspicion of malignancy
Fungal sinusitis in immunocompromised patients

CATEGORY 2
Trauma (e.g. CSF leak)
Benign sinonasal tumours (e.g. inverted papilloma, JNA)
Sinusitis with significant pain and/or compromising overall health and wellbeing of a patient (e.g. facial pain requiring regular opiate analgesia, severe sinusitis causing poor asthma control)
Septoplasty or Functional Rhinoplasty for nasal obstruction in patients with moderate to severe OSA who are unable to use CPAP

CATEGORY 3
Septoplasty
Turbinate surgery
Sinus surgery for chronic or recurrent acute sinusitis without complications or significant symptoms (as defined in Category 2)
Cosmetic rhinoplasty

LARYNGOLOGY, HEAD & NECK SURGERY

CATEGORY 1
Biopsy of suspected malignancy
Malignancy
Airway obstruction, including foreign bodies
Bleeding not controlled with conservative treatment
Infection not responding to conservative treatment

CATEGORY 2
Benign parotid, thyroid, and other neck masses
Voice disorders with significant impact on work or personal communication
Swallowing disorders with risk of aspiration and/or compromised nutrition

CATEGORY 3
Procedures of a cosmetic nature e.g. revision of scar, cosmetic rehabilitation of facial palsy

THE OUTPATIENT CLINIC

Endoscopy of the airway is an essential part of the ORLHNS clinic assessment. During Level 4 NZSOHNS recommended that these examinations were limited to essential cases only. As we move to Level 3 and with our understanding that there appears to be minimal community spread of COVID-19 NZSOHNS Council considers that the same guidelines should be applied to outpatients. That is:

For **patients with probable or confirmed COVID-19 infection (screened "red" or positive swab),** airway endoscopy should be avoided unless absolutely essential. The procedure should be done in a room dedicated to high risk patient care. This may be away from the ORLHNS clinic. COVID-19 precautions including full PPE should be used.

For patients at low risk of **COVID-19 infection** (screened "green" or negative swab), standard droplet precautions should be used. There should be a procedure for endoscope cleaning and room sanitisation. Each locality may employ different strategies to accommodate staff concern and to maintain staff health. The underlying evidence suggests that the majority of patients will not harbour COVID-19 but should recognise that we are in the **"recovery room" phase** that will allow transition to Level 2 and the accompanying confidence of COVID-19 containment within New Zealand. Distancing by use of camera attachments and/or videoscope where available is to be encouraged.

CONCLUSION

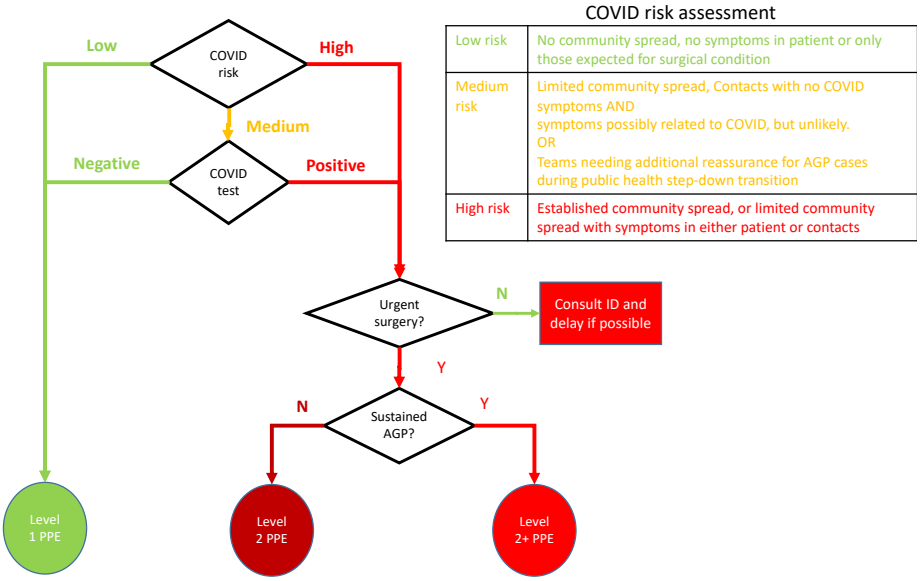
These guidelines shall be regularly reviewed and be subject to change depending on the COVID-19 disease prevalence, its impact on the health and safety of members and the impact on health facilities having to deliver elective surgery. At present, the maintenance of public health measures such as social distancing and hand and surface hygiene remains crucial.

During Level 3 the reinstatement of elective surgeries will require health administrators to monitor supplies of personal protective equipment (PPE), and ICU and general hospital capacity, while preparing for the next phase. To limit the volume of procedures performed, both public and private hospitals will need to limit the capacity of operating lists to accommodate the additional procedural needs of Level 3, the maintenance of patient and staff health and to allow ongoing readjustment to the changing prevalence of COVID-19 in our communities.

The New Zealand Government will review the impact of COVID-19 on our population on a regular basis. Our Government's opinion about movement between alert levels will inform recommendations made by NZSOHNS.

Fig. 1-3 below summarise NZSOHNS recommendations for the management of surgical and outpatient care during Alert Level 3.

Fig. 1: Surgical ENT procedures: COVID-19 Infection Prevention



COVID risk assessment

Low risk	No community spread, no symptoms in patient or only those expected for surgical condition
Medium risk	Limited community spread, Contacts with no COVID symptoms AND symptoms possibly related to COVID, but unlikely. OR Teams needing additional reassurance for AGP cases during public health step-down transition
High risk	Established community spread, or limited community spread with symptoms in either patient or contacts

Fig. 2: Outpatient ENT procedures: COVID-19 Infection Prevention

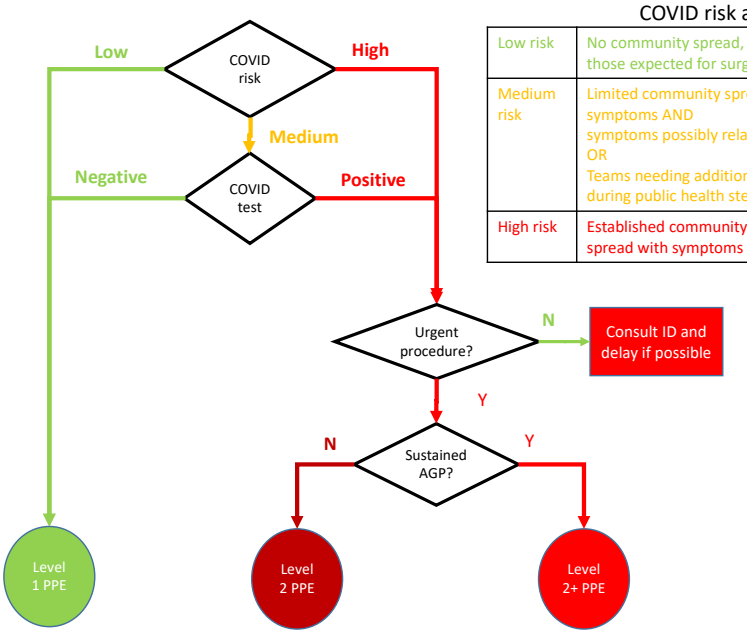


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Fig. 3: Background information

- Expert opinion in NZ and Australia indicates the risk of transmission is extremely low, even in AGPs.
- A surgical mask, surgical gown and gloves provides 90% of the protection giving high rates of additional security.
- NZSOHNS recognises that surgical teams have residual uncertainty about this risk during the transition phase.
- During this transition, optional pre-op testing gives additional reassurance to some teams.
- Where performed, this testing should be audited and collected in a national, central database to inform the advice for n levels.
- One test is sufficient.

Level 1 PPE (droplet precautions)	Face shield or goggles Surgical Mask Gloves Disposable fluid-repellent gown
Level 2 PPE (airborne precautions)	Face shield or goggles N95 mask/respirator Double Gloves Disposable fluid-repellent gown Surgical hat and shoe covers
Level 2+ PPE (enhanced airborne precautions)	Face shield or goggles N95 mask/respirator PAPR (if available, suitable and trained in its use) Double Gloves Disposable fluid-repellent gown Surgical hat and shoe covers Negative pressure room or designated operating theatre

NB: Whilst the greatest risk during AGP is to closest to the aerosol, for consistency it is in everyone in the room or theatre use the sar exception of PAPR, the use of which should with the COVID theatre coordinator.