COVID-19 RNA/PCR Testing in Acute Hospitals in Ireland

Public Health Recommendations on Strategic Approach

10th June 2020

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1. This paper is a supplementary paper to the NPHET paper of 4th of June 2020 - *COVID-19 RNA/PCR Testing of Health Care Workers in Ireland - Public Health Recommendations on Strategic Approach"* developed by the HSE HPSC. This was agreed by NPHET on 4th June 2020, subject to textual amendments.

2. In relation to the protection and surveillance of healthcare workers, NPHET agreed:
   'That HPSC revert with a policy paper, for consideration by the NPHET at its next meeting on 11 June 2020, in relation to the testing of healthcare workers as well as patients in hospital settings, to inform the development of guidance by the HPSC'.

3. The COVID-19 testing strategy for the acute hospital setting (HCWs and patients) was discussed by a multidisciplinary expert group, a sub group of the main testing strategy group, on 08/06/2020 (for membership of the sub group see Appendix 1). The proposed strategy was informed by ECDC recommendations and the present limited understanding of the epidemiology of COVID-19 in HCWs in Ireland.

4. The group considered the issue of a 'risk based' approach to testing in the hospital setting, based on targeted testing of HCWs who work in higher risk units/wards for exposure to COVID – it was theorised that the Emergency Department (ED), Intensive Care Unit (ICU) and acute medical wards may be higher risk for exposure to COVID compared to other areas in the hospital setting. However, due to the lack of evidence to support such an approach, and the current lack of data to enable identification of 'higher risk' units/wards within the hospital setting, this testing option is not recommended by the expert group.

5. The recommendations below are designed to improve the knowledge around, and understanding of, SARS-CoV-2 infection in hospital based HCWS in Ireland and inform future testing strategies in this area.

Epidemiology of COVID-19 in HCWs, Ireland

6. Report of the profile of COVID-19 cases in HCWs in Ireland; Report prepared by HPSC on 02/06/2020 - This report includes data as of 02nd June 2020 at 9:15 am for events created on CIDR up to midnight Saturday 30th May 2020.

Table 1

Characteristic of HCW COVID-19 cases	Number	%
Total number of COVID-19 cases	25385	-
Total number of HCW cases	8018	31.6
Number of new cases reported between 24 – 30 May	103	-
Median age (IQR)	41 (31-50) years	-
Total number hospitalised	302	3.8
The median age (IQR) of hospital inpatient	47 (34-54) years	
Total number admitted to ICU	44	14.6*
The median age (IQR) of HCW in ICU	51 (44-60) years	-
Total number of deaths	7**	0.09
The median age (range) for deaths	51 (30-68) years	-

**This relates to hospitalised cases and it is 0.5% of all HCW cases.*
***Six confirmed and 1 probable COVID-19 case.*

7. There was a total of 25385 COVID-19 cases reported as of 30/05/2020 12.00 midnight, 8018 (31.6%) were healthcare workers (HCWs).

8. The median age of COVID-19 case HCWs is 41 years (range 17-78 years). The proportion of females is disproportionately high (74%) among HCW COVID-19 cases compared to non-HCW COVID-19 cases (49.5%), most likely due to some HCW specialities e.g. nursing being female dominated. The majority (58.9%) of notified HCWs were from the HSE East. CIDR (Computerised Infectious Diseases Reporting) is a dynamic information system and data are continuously validated and updated.

9. This report includes all HCW COVID-19 cases (n=8018) reported to HPSC, including confirmed, probable and possible cases. There are 47 (0.6%) probable or possible HCW COVID-19 cases included in the report.

Table 2. Number and proportion of HCW COVID-19 cases by epidemiological week

Epi Week (Calendar Date)	Number of HCWs	Total number of cases*	Proportion of HCWs (%)
10 (1 – 7, March)	3	16	18.8
11 (8 – 14, March)	23	128	18.0
12 (15 – 21, March)	205	685	29.9
13 (22 – 28, March)	436	1633	26.7
14 (29 March - 4 April)	923	2437	37.9
15 (5 – 11, April)	1610	4585	35.1
16 (12 – 18, April)	1591	5668	28.1
17 (19 - 25, April)	1228	3906	31.4
18 (26 April – 2 May)	805	2594	31.0
19 (3 –9 May)	476	1506	31.6
20 (10-16 May)	470	1199	39.2
21 (17-23 May)	145	593	24.5
22 (24-30 May)	103	435	23.7
Total	8018	25385	31.6

including HCWs

Table 3. Number and proportion of HCW COVID-19 cases by HSE area

HSE area	Number of HCWs cases	Proportion of all cases	Number of new cases since last week
HSE E	4722	58.9%	74
HSE M	434	5.4%	3
HSE MW	365	4.6%	3
HSE NE	1108	13.8%	6
HSE NW	276	3.4%	-
HSE SE	325	4.1%	7
HSE S	392	4.9%	-
HSE W	396	4.9%	10
Total	8018	100.0%	103

Table 4. Number and proportion of HCW COVID-19 cases by CHO area

CHO area	Number of HCWs cases	Proportion of all cases	Number of new cases since last week
CHO1	774	9.7%	6
CHO2	396	4.9%	10
CHO3	365	4.5%	3
CHO4	392	4.8%	-
CHO5	325	4.1%	7
CHO6	876	10.9%	8

CHO7	1729	21.6%	34
CHO8	1044	13.0%	3
CHO9	2117	26.4%	32
Total	8018	100.0%	103

Table 5. Number and proportion of HCW COVID-19 cases by role

HCW Role	Number of HCWs cases	Proportion of all cases	Number of new cases since last week
Nurse	2591	32.3%	34
Healthcare assistant	2056	25.7%	19
Other allied HCW*	1878	23.4%	33
Doctor	483	6.0%	2
Porter	90	1.1%	2
Unknown	920	11.5%	13
Total	8018	100.0%	103

Table 6. Number and proportion of HCW COVID-19 cases linked to an outbreak by outbreak location

Outbreak location	Number of HCWs cases	Proportion of all cases	Number of new cases since last week
Nursing home	1577	19.8%	10
Hospital	705	8.8%	9
Residential institution	335	4.2%	18
Comm. Hosp/Long-stay unit	198	2.5%	-
Private house	52	0.6%	-
Community outbreak	14	0.2%	-
Extended family	19	0.2%	-
Other	20	0.2%	1
Workplace	29	0.4%	-
Travel related	19	0.2%	-
Public house	1	0.0%	-
Not linked to an outbreak	5049	62.9%	65
Total	8018	100.0%	103

10. It is acknowledged that improvements are needed in relation to surveillance arrangements and data completeness for SARS-CoV-2 infections in HCWs; a specific recommendation has been made on this in the main paper - *COVID-19 RNA/PCR Testing of Health Care Workers in Ireland - Public Health*

Recommendations on Strategic Approach" developed by the HSE HPSC 4th June 2020.

11. Recommendations for testing – HCWs in Acute Hospitals

11.1 Testing of symptomatic HCWs

Recommendation 1

All symptomatic HCWs will be tested for SARS-CoV-2 if they fit the case definition for COVID-19.

Action: All hospital Occupational Health Departments must ensure arrangements are in place in hospitals to allow for rapid access to SARS- CoV-2 testing for symptomatic HCWS. This is an ongoing requirement. In addition, all Occupational Health Departments must ensure that all cases of COVID-19 are entered onto the State Claims Agency, National Incident Management System (NIMS) with all fields completed.

Recommendation 2

An alert will be sent to all HCWs nationwide with information regarding IPC and self-monitoring for symptoms of COVID-19 and action to take if the HCW becomes symptomatic. The alert should include the following information, which can be tailored to HCW category:

- Information on the importance of IPC as a COVID control measure – this should emphasise the potential for asymptomatic transmission for up to 48 hours before symptom onset and the need for rigorous IPC to prevent such transmission (include links to IPC training resources).
- Information regarding the current case definition of COVID-19, including symptoms.

- Information regarding the need to self-monitor for symptoms of COVID-19 on a daily basis and instructions on the process for so doing, e.g. use of a self-assessment checklist (Appendix 2 - Draft COVID-19 HCW Self-Assessment Tool) to monitor for symptoms on a daily basis, maintain a record of self-assessment.
- Information regarding action to take if the HCW becomes symptomatic in the workplace or at home. This should include instructions on how to access testing (e.g. via occupational health).
- There should be a clear pathway to timely testing for symptomatic HCWs in all healthcare settings, with a short turnaround time, prompt communication of results and links to the contact tracing processes in place. Additionally, all HCWs in all settings should have access to occupational health services.

Action: HSE to ensure this alert is developed and issued to staff by 19th June 2020.

11.2 Testing of asymptomatic HCWs

Recommendation 3

Asymptomatic HCWs will be tested for SARS-CoV-2 if they are (i) identified as close contacts of a confirmed case of COVID-19 and (ii) in the context of an outbreak in an acute (hospital) setting, all HCWs in the affected ward/unit/setting will be tested for SARS-CoV-2.

Action: HPSC to include this in guidance/testing algorithm to be issue to all acute hospitals, by 15th June 2020.

Recommendation 4

All HCWs changing hospital location, from July 2020, should be offered a SARS-CoV-2 test, with a focus on those moving from areas of high prevalence to areas of low prevalence. Testing will be undertaken in a structured manner and may comprise combined PCR and serology testing (and banking). Data from this testing process

will be captured and collated to inform future testing strategies. This recommendation dovetails with recommendation 5.

Action: All HSE hospital Occupational Health Departments to put in place plans for testing HCWs who are rotating from July 2020; immediate.

Recommendation 5

A prevalence study will be undertaken to assess point prevalence (PCR/RNA testing) and seroprevalence (serological testing) rates of SARS-CoV-2 among asymptomatic HCWs in two acute hospitals – one in a low prevalence region and the other in a high prevalence region ('low' and 'high' prevalence rates need to be defined).

Action: HSE Health Protection to design and lead, working with leads identified in the 2 centres. Study design and implementation plan to be ready by 13th July 2020.

Recommendation 6

HSE will undertake enhanced epidemiological studies of 6 current hospital outbreaks of COVID-19, 5 of which are occurring in larger Dublin hospitals where community prevalence is currently higher than the rest of the country, to better understand sources of infection, chains of transmission and risk factors for infection. This will include additional targeted testing of all HCWs who have any link with the outbreak affected areas/wards in the hospital and also further testing of other HCWs in those hospitals based on Public Health risk assessment.

Action: HPSC to lead, working with the local public health departments and the lead for the outbreak investigation at each hospital. HPSC to provide a progress update on 18th June 2020 on the planning for this.

11.3 General Recommendation

Recommendation 7

HSE will develop an online HCW triage system/'symptom checker' to enable HCWs to rapidly self-assess and report symptoms of COVID-19 on a daily basis. If

symptomatic, HCWs will be able to access testing (with rapid access and turnaround) via agreed pathways (e.g. via occupational health in the acute (hospital) setting. If there is a significant increase (beyond an agreed threshold) in the number of HCWs reporting symptoms of COVID-19 and accessing testing, this will trigger broader testing of asymptomatic HCWs in affected settings.

Action: The HSE should develop this online triage system/symptom checker for implementation in all acute hospitals by end July 2020.

Recommendation 8

The HSE (the Contact Management Programme (CMP) with Occupational Health Services) will undertake an enhanced investigation of the most recent HCWs COVID-19 infections (last 150 cases) to gather data regarding:

i. the setting in which affected HCWs work,
ii. their scope of practice,
iii. PPE use,
iv. whether they were working in a setting with an ongoing COVID-19 outbreak,
v. whether they work across healthcare settings,
vi. their accommodation arrangements (if possible to collect this information – e.g. is overcrowding an issue, do they live with other HCWs working in the acute/community sector) etc.

Action: HSE CMP and Occupational Health, should lead this enhanced investigation with advice on methodology from HPSC. This should be complete by end June 2020.

Recommendation 9

The role of RNA sequencing in the investigation of chains of transmission of COVID-19 in the acute setting should be considered.

Action: NVRL to scope out and define the role for RNA sequencing in the acute setting. This should be completed by July 2020.

11.4 Testing of patients in the hospital setting

Recommendation 10

Patients will be tested according to agreed protocols for the following clinical scenarios (see Appendix 3 for full protocols)

- Day Case Procedures – non-aerosol generating procedures (AGPs) e.g. non-invasive radiology, colonoscopy, minor procedures
- Day Case Procedures – involving anaesthesia or aerosol generating procedures (AGPs)
- Planned Hospital Admission for non-COVID care
- The Peri-Procedural Period
- The outpatient care setting (new and return patients)

Action: HSE Acute Services should clearly communicate these protocols, and the need for implementation, to all acute hospitals by 12th June 2020. A data collection system must be developed by HSE to enable capture of the outcome of these testing processes.

Appendix 1 – Membership of Working Group

1. Dr Lorraine Doherty, National Clinical Director Health Protection (Chair)
2. Dr Alan Smith, DCMO, Department of Health
3. Prof Colm Bergin, Infectious Diseases Consultant
4. Prof Cillian F De Gascun, National Virus Reference Laboratory
5. Dr Vida Hamilton, National Clinical Advisor and Group Lead Acute Operations, HSE
6. Dr Heather Burns SpR PHM HPSC
7. Dr John Cuddihy, Director, HPSC
8. Dr Kevin Kelleher, Public Health
9. Dr Lynda Sisson, Occupational Health and Wellbeing, HSE
10. Dr Siobhan Ni Bhriain, Consultant Old Age Psychiatrist.

Appendix 2 – Draft COVID-19 Healthcare Worker Self-Assessment Tool

COVID-19 Healthcare Worker Self-Assessment Tool

XX May 2020

	Please Tick	
	Yes	**No**
1. Symptoms (within past 14 days)		
• Fever/Chills/Sweating		
• Shortness of breath		
• New/Worsening cough		
• Sore throat		
• Malaise/Aches		
• Loss of taste or smell		
• Vomiting/Diarrhoea?		
2. Recent exposure (within 14 days) -workplace or other		
• Protected contact with a confirmed or probable case		
• Unprotected contact with a confirmed or probable case		
3. Travel/Relocation		
• Travel within 14 days from outside the island of Ireland		
4. Previous Test		
• No positive COVID-19 test within the past 3 months. (if previous test within 3 months detected COVID-19 please tick no)		

If you answered YES, any question please contact the Occupational Health Service in your current location to request a test 1 week prior to transfer. You may not commence duty until test results are available.

1. If you have any of the symptoms listed in Section 1, please self-isolate and contact your existing Occupational Health Service or your GP for assessment and possible testing.
2. If you had unprotected contact with a confirmed or probable case within 14 days before your start date, have been identified as a 'close contact' and are restricting movement as a result, please advise your new Occupational Health service.
3. If you have travelled from outside the island of Ireland within 14 days you must self-isolate for 14 days from the date of return. Testing is not required unless you develop symptoms. Please advise HR of your travel and the requirement to self-isolate.
4. If you have tested positive within 3 months and are asymptomatic, you can be considered immune for 3 months from onset of symptoms (in original infection).

Appendix 3 – Protocols for SARS-CoV-2 testing of patients in the acute (hospital) setting, by clinical scenario

Interim Guidance on the Management of Day Case Procedures – non-aerosol generating procedures (AGPs) e.g. non-invasive radiology, colonoscopy, minor procedures

This document does not supersede clinical judgment and describes methods to mitigate risks associated with delivering non-COVID care in an environment where SARS-CoV-2 is prevalent. It provides a framework for services that will need to be tailored to local conditions and specialty needs.

Pre-admission: 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. Restricting their movements 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 COVID-19.

In addition, they need means to get to the 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 but recognised that this may not always be possible. No children are to accompany individuals for procedures.

Pre-sedation assessment:

As much as can be should be assessed virtually and additional investigations and/or in person history and examination should be scheduled to occur on the same day to minimize the number of hospital visits.

Prior to admission, patients should be sent an appointment time and asked to wait in their car, where possible, until shortly before their appointment time. Included in this communication should be a patient information leaflet indicating the requirements pertaining to the procedure. Facemasks, one for the patient and one for the individual, accompanying them can be included in this communication.

These masks are to be put on prior to entering the facility, if tolerated, and hands sanitized. Individuals are asked not to touch their face whilst wearing their masks. If masks are inadvertently touched, sanitize hands immediately after. Once delivered, the accompanying adult will be asked, where possible, to return to their vehicle and to leave contact details for patient collection.

Patients will be asked to keep their facemask in place for the entire hospital/ clinic visit, if tolerated. Should it become wet or soiled a replacement will be offered.

On admission the patient will be screened for the symptoms and signs of COVID-19. If any are present the procedure will be cancelled. If the patients has signs of COVID-19 within 14 days of the procedure they are asked to phone and will be offered an alternate appointment. This applies up to the day of the procedure.

Dr Vida Hamilton, NCAGL Acute Operations, Approved EAG, 29th April 2020

Interim Guidance on the Management of Procedures that are Day Case – Involving anaesthesia or aerosol generating procedures (AGPs).

This document does not supersede clinical judgment and describes methods to mitigate risks associated with delivering non-COVID care in an environment where SARS-CoV-2 is prevalent. It provides a framework for services that will need to be tailored to local conditions and specialty needs.

Pre-admission: 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. Restricting their movements 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 COVID-19.

In addition, they need means to get to the hospital and a designated individual to stay with them for 12/24 hours after any procedure involving sedation or anaesthesia. It is preferable if the accompanying adult remains in the car but recognised that this may not always be possible. No children are to accompany individuals for procedures.

Pre-sedation, anaesthesia assessment:

As much as can be should be assessed virtually and additional investigations and/or in person history and examination should be scheduled to occur on the same day as pre-procedural COVID-19 testing to minimize the number of hospital visits.

Pre-procedural testing: Within 48-72 hours of the procedure, the patient should attend for a COVID-19 test. They should not proceed to the hospital/ clinic until it has been confirmed that their test is negative.

Prior to admission, patients should be sent an appointment time and asked to wait in their car, where possible, until shortly before their appointment time. Included in this communication should be a patient information leaflet indicating the requirements pertaining to the procedure. Facemasks, one for the patient and one for the individual, accompanying them can be included in this communication.

These masks are to be put on prior to entering the facility, if tolerated, and hands sanitized. Individuals are asked not to touch their face whilst wearing their masks. If masks are inadvertently touched, sanitize hands immediately after. Once delivered, the accompanying adult will be asked, where possible, to return to their vehicle and to leave contact details for patient collection.

Patients will be asked to keep their facemask in place for the entire hospital/ clinic visit, if tolerated. Should it become wet or soiled a replacement will be offered.

On admission the patient will be screened for the symptoms and signs of COVID-19. If any are present the procedure will be cancelled. If the patients has signs of COVID-19 within 14 days of the procedure they are asked to phone and will be offered an alternate appointment. This applies up to the day of the procedure.

The patient will be admitted to a dedicated elective pre-operative area.

Post procedurally, the patient will be admitted to an area dedicated to planned care and including only patients who have had similar pre-procedural screening and testing.

On discharge the patient will be given an information leaflet including the means to contact the hospital or attend for unplanned care due to an unforeseen complication of the procedure e.g. G.P., a virtual clinic, the ASAU or AMAU for clinical examination rather than attending an undifferentiated care pathway (ED).

Dr Vida Hamilton, NCAGL Acute Operations, Approved EAG, 29th April 2020

Interim Guidance on the Management of planned Hospital Admission for non-COVID care.

This document does not supersede clinical judgment and describes methods to mitigate risks associated with delivering non-COVID care in an environment where SARS-CoV-2 is prevalent. It provides a framework for services that will need to be tailored to local conditions and specialty needs.

It applies to planning for a hospital stay or planned interventions that will impact the patient's immune system. Surgery and immunosuppressant treatments such as chemotherapy or radiotherapy co-inciding with acute COVID-19 may be associated with increased mortality. [1,2]

1. Modelling by Williams et al suggests that mortality from chemotherapy is doubled in presence of COVID 19 infection, in the > 50 age group (https://www.medrxiv.org/content/10.1101/2020.03.18.20038067v1.full.pdf).
2. S. Lei et al., Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection, EClinicalMedicine (2020), https://doi.org/10.1016/j.eclinm.2020.100331

14 days prior to admission:

In order to mitigate the risk of having surgery or in-patient medical therapy whilst incubating COVID-19, it is recommended that each individual, in so far as possible, minimizes their risk of exposure to others who maybe asymptomatic or presymptomatic or indeed be symptomatic with COVID-19.

The most effective strategy is to cocoon for 2 weeks in advance of admission. Where this is not possible, it is recommended that contact is minimized with people outside of your immediate social group to the greatest possible extent and that social distancing, mask wearing and hand washing/ sanitizing is used to minimize infection risk.

If an individual is in a residential care setting, establish if there is COVID-19 transmission in the RCF and if so defer surgery or remove to another setting two weeks prior to admission.

7- days prior to admission:

Call or text patient to confirm they are cocooning/ physical distancing

Check that they and their social circle have no clinical features suggestive of COVID-19

Anaesthesiology pre-assessment clinic:

As much as is possible should be assessed virtually and efforts made to bundle tests and investigations, including COVID-19 test, that require hospital attendance into as few episodes as possible.

48-72 hours pre-admission:

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. Restricting their movements 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 COVID-19.

The patient should attend for a COVID-19 test within 48 hours of scheduled admission. Patients (and individuals accompanying them) should wear facemasks to and from testing, if tolerated.

At this time the patient's medical file can be made up and sent to their admission ward which should only care for patients with planned admission who have spent 2 weeks preparing and have had pre-screening and test results with 'VIRUS NOT DETECTED'. This gives clinicians the opportunity to review the chart on the day before, if required.

In addition, the patient needs means to get to the hospital. It is preferable if the accompanying adult remains in the car but recognised that this may not always be possible. No children are to accompany individuals for admission.

Prior to admission, patients should be sent an appointment time and asked to wait in their car, where possible, until shortly before their appointment time. Included in this communication should be a patient information leaflet indicating the requirements pertaining to the procedure. Face masks may be used during hospital visits, if tolerated and hands sanitized. Individuals are asked not to touch their face whilst wearing masks. If masks are inadvertently touched, hands should be sanitized immediately after.

Day of admission:

Patients should not attend unless they have been informed that their COVID-19 test indicates "VIRUS NOT DETECTED" and given an attendance time.

On admission the patient should be screened for the symptoms and signs of COVID-19. If any are present the procedure will be cancelled. Patients should be admitted on the day of surgery/ intervention whenever possible to minimize the length of hospitalization and directly to the specialist planned care ward occupied only by patients who have similar pre-procedural planning, screening and testing.

Post procedurally, the patient should be admitted to an area dedicated to planned care and including only patients who have had similar pre-procedural planning, screening and testing.

On discharge

The patient should be given an information leaflet including the means to contact the hospital or attend for unplanned care due to an unforeseen complication of the procedure whether it be the GP, a virtual clinic or the ASAU/ AMAU rather than attending an undifferentiated care pathway.

If being discharged to another healthcare or long stay residential centre (LSRC) after a stay case the patient should be tested for COVID-19 within 24 hours of discharge and consideration given to 'cocooning' on return to the LSRC for 14 days.

Surveillance:

It is recommended that patient are reviewed for infection, including COVID-19 and surgical site infection occurs between 2 to3 weeks post discharge. In so far as possible this should be done virtually.

Dr Vida Hamilton, NCAGL Acute Operations, Approved EAG, 29th April 2020

Interim Guidance on the Peri-Procedural Period

Patient having a planned procedure should have had 2 weeks 'cocooning' or social distancing, pre-screening for symptoms and signs and a COVID test with 'virus not detected' within 48 hours of the procedure as outlined in '**Guidance on the Management of planned Hospital Admission for non-COVID care'**.

These patients should not be situated near undifferentiated patients. For theatres that are delivering on scheduled and unscheduled care, procedures should be put in place to avoid the mixing of these patient cohorts.

The patient should wear a facemask going to theatre, if tolerated and the staff attending should wear mask, apron and gloves (MAG).

Induction: may occur in the anaesthetic room, suggest minimum staff present.

Face shield gloves, gown and respirator mask (FGGRM) suggested for

Bag, mask ventilation

Intubation/ extubation

LMA insertion/ removal

Flexible optical intubation

Bronchoscopy

Nasal and guedal airway insertion and removal

Naso-gastric tube insertion

Transfer to theatre may occur as soon as the patient is ready due to the pre-admission risk mitigation actions.

For regional techniques a surgical mask is suitable, with sterile gown and gloves for sterile procedures.

In the theatre, depending on the procedure, goggles/ face shield, surgical mask and gown is suitable, with respirator mask used when aerosol generation is possible.

Theatre staff should have facemasks in place prior to the patient being brought into theatre and until the patient has left.

Extubation should occur in the theatre and the patient transferred to a non-COVID recovery area

LMA removal may occur in recovery with a barrier or FGGRM.

Post-operatively patients should be transferred to a dedicated non-COVID post-op ward.

Dr Vida Hamilton, NCAGL Acute Operations, endorsed by EAG, 29th April 2020

Interim pre-assessment, triage and review of patients in outpatient care settings (new and return patients)

Clinician & Clinic actions:

There is a requirement for service re-design (systems engineering) to ensure lean principles/ flow processes are applied. Need for a risk management and quality assurance/improvement process to underpin service re-configuration.

1. Review all planned attendances to OPD in context of option for care provision in primary care settings or integrated care.
2. Review all planned OPD attendees for option to triage to virtual clinic review.
3. Consider mechanisms to support single patient visits where patient is attending multiple providers of having laboratory and radiology tests undertaken (“one stop shop”).
4. Deliver OPD services by appointment only, patient to remain in their car until just before appointment, there will be minimal seating area.
5. Pre-review and cohort all required OPD attendees (per specialty criteria) to a designated provider (consultant, SpR, SHO, intern, student, ANP, CNS, SN< HSCP). Clearly record in the OPD appointments system designated clinician per patient and other staff per clinic. Update if changes occur on the day of clinic.
6. Pre-assess all OPD *attendees (with appropriate supports for vulnerable groups) for symptoms: fever, cough, shortness of breath OR lethargy, confusion, loss of appetite,* unexplained change in baseline condition (also enquire symptomatic members or close contact with confirmed cases amongst social circle)
7. Consider split clinics, extended days, extended working hours with workforce planning.

Patient actions:

1. Commence social distancing 2 weeks in advance of OPD visit with attention to hand hygiene.
2. Comply with requirements for assessment for signs and symptoms of COVID-19 to minimise spread
3. Hand sanitize and wear a face mask during visit, if tolerated.

Summary:

1. Pre-screen all OPD attendees as above
2. Daily staff screening for symptoms and signs of COVID-19
3. All staff to wear surgical masks
4. Review HCW COVID19 testing policy
5. Please refer to HPSC HCW PPE guidance
6. All patients to wear surgical masks, if tolerated.

Dr Vida Hamilton, NCAGL Acute Operations, Approved EAG, 29th April 2020 & NPHET 1st May 2020