



Submission to the Special Committee on Covid-19 Response
Non-Covid-19 Healthcare and Healthcare Capacity

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1. Introduction

The Irish Thoracic Society (ITS) is the national organisation for Respiratory Healthcare Professionals on the Island of Ireland. The society plays a central role in providing guidance and leadership for respiratory healthcare in Ireland as well as supporting education and research. Membership includes all disciplines of healthcare professionals and represents all stages of the care pathway.

Our work encompasses the spectrum of Respiratory Disease: Asthma; COPD; Cystic Fibrosis; Interstitial Lung Diseases; Lung Cancer; Sleep Disorders; Tuberculosis; Lower Respiratory Tract Infections, Paediatric Respiratory Disease. In recent months Covid-19 has been added to this list as a disease that predominantly affects the lungs and airways, which can cause mild to severe acute respiratory disease and can also cause long term damage to the lungs requiring ongoing care in a significant proportion of patients. Respiratory consultants, respiratory nurses, physiotherapists and respiratory physiologists are the clinicians who treat and monitor those Covid-19 patients who develop respiratory complications and those who will require pulmonary rehabilitation following recovery from severe disease.

The **ITS Covid-19 Sub-Committee** (see Appendix I), which was convened in mid-March, has been meeting weekly to review the Respiratory Management of Covid-19 in hospitals throughout Ireland, to develop Guidelines for Covid-19 Respiratory care and to share evidence and best practice. Regular liaison with the National Clinical Programme Respiratory facilitates input and ensures alignment with national guidance and policy as does the group's representation on the Expert Advisory Group, the Medical Leaders Forum and the Device Criticality Assessment Group.

We are making this submission on behalf of ITS members and our patients to highlight our fears of a looming lung health crisis at a magnitude that will have untold implications for the healthcare service and for our patients in the coming months and years unless urgent action is taken. We include our recommendations to address the ongoing threat of Covid-19 on top of an already severely overburdened system, through the provision of respiratory healthcare services in community and hospital settings.

If implemented, our proposal will ease pressure on a system which has long been chronically under-resourced and over-stretched, deficits which the Covid-19 Pandemic has served to

further expose and amplify. Our proposal is in line with the SláinteCare Strategy, implementation of which we believe must now be urgently accelerated and extended.

Having successfully 'flattened the curve' Ireland now enters an indefinite period of living with Covid-19. This means addressing the significant backlog in patients who have missed out on essential diagnosis, interventions and routine care over the last three months while at the same time endeavouring to resume 'normal' healthcare services as much as possible. Reports from some of the country's main respiratory departments report numbers of patients receiving pulmonary function tests and bronchoscopies to be as low as 10 or 20% of normal capacity. These tests are essential gateways to diagnosis, intervention and ongoing management of respiratory diseases and the reduction in testing at such a scale will have a serious knock-on effect to the health and quality of life of these patients and on these services going forward.

This is against the backdrop of ongoing uncertainty caused by the high risk of a second surge; new influenza strains; further mutations of Covid-19 as well as the long-term health impact on Covid-19 survivors. All of this comes on the heels of an already overwhelming burden on respiratory services as, prior to the pandemic, mortality rates and hospital admission rates from lung disease were already amongst the highest in Europe and the OECD, while the numbers of respiratory specialists per capita are amongst the lowest.

We face an Autumn and Winter that will put previous health and trolley crises in the shade unless urgent action is taken to avert unprecedented rates of excess illness and death from lung and other diseases, both Covid and Non-Covid.

2. Burden on Respiratory Services Pre Covid-19 (Non Covid-19 Healthcare)

Respiratory Health of the Nation, published by the ITS in 2018, shone a light on the unacceptable burden of respiratory disease in Ireland. Its findings include the fact that respiratory disease accounts for more hospitalisations than for cardiovascular and cancer cases combined (14% versus 8% and 5% respectively) and that the vast majority of these (85%) are for emergency, unscheduled care.¹ We know too that these figures rise significantly during the crisis months of Autumn and Winter. A study on the seasonal epidemiology of hospital admissions in adults in Ireland 2015-2018, carried out by the HSE in 2019, identified that respiratory illness was the dominant driver of increased emergency admissions during the Winter season across the entire acute hospital

service. Emergency hospitalisations reduced in Winter across all diagnostic categories with the exception of respiratory conditions which increased by 379 per week representing a 40.5% increase.²

Furthermore, In the period between 2008 and 2016, the number of deaths from respiratory disease increased by 14.6%. This compares with a 7.5% drop in cardiovascular deaths. The Respiratory Health of the Nation report also shows that Ireland's death rate from respiratory disease is the fourth highest in the EU-28 and is 38% higher than the EU average.¹

An Irish Thoracic Society Workforce Planning submission to the HSE submitted in 2018 indicates Ireland has approximately one respiratory physician per 80,000 persons. International guidelines suggest a figure of one physician per 35,000 persons is appropriate. Numbers of Respiratory Specialist Nurses, Physiotherapists and Physiologists are at proportionately unacceptable levels.

Figures for individual conditions paint a similarly stark picture of the burden of lung disease on our population and health services - this is set to increase over time as our population grows and ages:

- **COPD** – Almost half a million people aged 40 years and over in Ireland have COPD, of whom over 200,000 have moderate or severe disease and only half are likely to be diagnosed. Ireland has the highest rate of hospital admission for COPD amongst OECD countries. (HSE NHQRS Report 2019)
- **Asthma** – 380,000 people in Ireland are living with asthma (Asthma Society of Ireland)
- **Cystic Fibrosis** – Ireland has the highest rate of cystic fibrosis per capita in the world, with approximately 1,400 children and adults in Ireland living with the condition. (Cystic Fibrosis Ireland)
- **Lung Cancer** – accounts for the greatest number of cancer deaths in Ireland at 20% of all cancer deaths (1,864 deaths in 2016) (*Respiratory Health of the Nation 2018*)
- **Idiopathic Pulmonary Fibrosis (IPF)** – a chronic, progressive and fatal lung disease resulting in severe morbidity with shortness of breath and impaired quality of life affecting approximately 1,200 people in Ireland (Irish Lung Fibrosis Association)
- **Sleep Disorders** – 10% of the population suffers from a clinically significant sleep disorder and the prevalence is expected to increase in Western countries due to both ageing and obesity (*Respiratory Health of the Nation 2018*)

3. Burden on Respiratory Services Post Covid-19 (Healthcare Capacity)

Covid-19 is a respiratory illness. To date there have been 25,489 cases, with 3,298 hospital admissions for severe and critical illness and, sadly, 1,738 deaths (as of 2nd July 2020). This has dramatically and unexpectedly increased the burden on already stretched respiratory services in Ireland both in terms of short-term acute illness and long-term residual complications, principally respiratory, which are going to require ongoing monitoring, treatment and rehabilitation. This manifests as a 'scarring' of the lungs or lung fibrosis which is likely to affect a significant proportion (30-60%) of those who have been hospitalised or admitted to ICU. It is an irreversible and progressive condition that will require continuous care similar to other chronic lung conditions. Data from the Mater University Hospital suggests that 40% of the 60% of patients treated there with Covid-19 have ongoing respiratory issues. The ongoing care of patients with chronic respiratory disorders has also received international attention recently (<https://www.bbc.com/news/health-53065340>).

4. Irish Thoracic Society Recommendation

In order to deal with both the significant existing and the new 'Covid-19' induced burden on respiratory services the Irish Thoracic Society is calling for accelerated and extended implementation of the National Clinical Programme (NCP) Respiratory proposal for integrated care of chronic respiratory disease in the community to cover Covid-19 patients. This must be accompanied by supplementary respiratory healthcare resources at hospital level to meet the ever-growing demands of acute and complex respiratory care, both Covid and Non-Covid.

Integrated Respiratory Care

Already supported by SláinteCare for the delivery of care to COPD patients, the NCP proposal promises to deliver 'the right care, in the right place at the right time'. It will bring specialist services, normally accessed in hospitals, to patients nearer their homes (in GP practices or Primary care centres), while maintaining the all-important link with their specialist hospital team.

If adequately resourced, Integrated Respiratory Hubs have the potential to transform the way we manage respiratory healthcare in a way that serves the best interests of our patients and addresses the existing and future burden of lung disease – both Covid and Non-Covid.

Integrated Respiratory Hubs will deliver:

- Easier access to diagnostic tests and earlier diagnosis of respiratory disease.
- Standardisation and quality control of diagnostic facilities.
- Provision of care and rehabilitation closer to the patient's home.
- Provision of tailored care, advice and self-management supports.
- Rapid access to Specialist advice or referral.
- The smooth coordination of care between all levels.
- Reduction in the demands for hospital resources and beds.

The respiratory integrated care service will provide a seamless pathway of care which will improve health outcomes and reduce acute service demand by enhancing patients' knowledge of their disease, the treatment and management options available and by increasing confidence in their own self-management capabilities. Local pulmonary rehabilitation programmes will empower patients and improve their physiological and psychological health. This integrated care service will also be ideally situated to respond to a second wave of Covid-19 if one were to occur.

However it will only be effective if resourced adequately. In order to meet the scale of the challenge we are facing and provide equality of access to all our patients, this service would need to be organised and allocated across all Local Health Organisations (LHOs) with at least two Consultant Respiratory Physicians per Community Healthcare Organisation (CHO) to provide clinical governance and leadership.

The components of an integrated respiratory service include:

Consultant Respiratory Physician (two per CHO)

To provide overall clinical governance and a point of reference for specialist advice and support on the management of respiratory patients (including Covid-19 patients) to members of the Multi-disciplinary team (MDT) looking after patients in primary and secondary care. To act as the link between community and hospital inpatient care including supervision of oxygen assessment and non-invasive ventilation; diagnostic services; the development of pulmonary rehabilitation.

Integrated Respiratory Nurse (one per LHO)

To provide specialist support to general practice with an integrated link to secondary care specialist support. To include provision of direct clinical care, information, education and support to respiratory (including Covid-19) patients. They will facilitate evidenced based diagnosis and

management of respiratory patients, providing spirometry testing, assessment and advice on self-management, review of inhaler therapy and technique, smoking cessation, exercise and breathing control techniques, oxygen assessment and care of NIV, as well as and providing or referral to the Pulmonary Rehabilitation Programme.

Integrated Respiratory Physiotherapist (one per LHO)

To support the development of the pulmonary rehabilitation programmes in the community with an integrated link to secondary care specialist support. Also to provide spirometry testing, assessment and review of inhaler therapy and technique and education in self-management strategies. To develop patient knowledge and skills in airway clearance, breathing control and exercise.

Pulmonary Physiologist (one per LHO)

To provide pulmonary function testing in both the hospital and community for the diagnosis of COPD as well as other lung diseases. With respect to Covid-19 patients, pulmonary function testing will be essential to determine the presence and severity of residual lung injury. They will provide a resource and training for staff in the provision of quality assured community-based spirometry testing.

Administrative Assistance (one per LHO)

To provide support to staff for administrative functions, including communicating with patients in specific service areas, but also across the continuum of services. This role supports the integrated respiratory team to maintain patient local registers, scheduling appointments and collecting /collating minimum data sets.

Hospital Respiratory Care

In addition, investment in resources and adaptation of infrastructure in hospitals is essential to deal with the growing volume of acute and complex respiratory cases including the significant proportion of Covid-19 patients who will require ongoing specialist multidisciplinary care. The ITS supports an **Integrated Multidisciplinary Model of Covid-19 Recovery Care** such as that developed by Dr Killian Hurley and colleagues in Beaumont Hospital – see Appendix II attached.

Necessary adaptation of infrastructure to enable essential services such as pulmonary function tests to resume while adhering to social distancing guidelines - for example the separation of spaces for testing, waiting areas and office space. Other areas where increased resourcing and

capacity is urgently required include non-invasive ventilation (NIV) and access to radiology as well as increased outpatient facilities.

We believe that if these measures are introduced without delay we could see a significant alleviation of the 'Winter Trolley Crisis' in the coming months and a lasting and transformative improvement in healthcare services, even as we continue to live alongside Covid-19 and potential future surges. Inaction, on the other-hand, is likely to have catastrophic consequences for our patients and our health service.

References

1. Hurley E, O'Connor T, McCormack S, **O'Connor M**, Respiratory Health of the Nation 2018, Irish Thoracic Society, December 2018.
2. Mulroe J, Donohue F, Kavanagh PM, McCarthy S, **Johnson H**, A Comparison of Summer and Winter Hospitalisations in Ireland, Ir Med J. 2019 May 9;112(5):935.

Appendix I

The Irish Thoracic Society Council and COVID-19 Expert sub-committee:

- **Dr Aidan O'Brien**, University Hospital Limerick, President Irish Thoracic Society
- **Dr Marcus Butler**, St Vincent's University Hospital, Vice President Irish Thoracic Society
- **Professor Sean Gaine**, Mater University Hospital, Dublin
- **Professor JJ Gilmartin**, Galway University Hospital
- **Ms Emma Flood**, Midland Regional Hospital Mullingar (Respiratory Physiology)
- **Ms Siobhan Healy**, Cork University Hospital (Physiotherapy)
- **Dr Marcus Kennedy**, Cork University Hospital
- **Professor Tim McDonnell**, St Vincent's University Hospital
- **Professor Eddie Moloney**, Tallaght University Hospital
- **Professor Ross Morgan**, Beaumont Hospital
- **Professor Shane O'Neill**, Emeritus Professor of Clinical Medicine Beaumont Hospital, Royal College of Surgeons in Ireland
- **Dr Michael O'Mahony**, Galway University Hospital
- **Professor Karen Redmond**, Mater University Hospital
- **Dr Mark Rogan**, University Hospital Waterford
- **Ms Paula Ryan**, University Hospital Limerick (Advance Nurse Practitioner, Respiratory)

Appendix II

An Integrated Multidisciplinary Model of COVID-19 Recovery Care

So far during the initial COVID-19 pandemic surge 25,396 patients were infected with the virus and 3,232 were assessed and admitted with severe and critical illness. Many of these patients now have short and long-term respiratory and functional limitations and are at risk of significant mental health problems. These patients are already high utilisers of General Practice, Accident and Emergency Departments and Outpatient services where they add significant workload to already overstretched services. The proposed model of care aims to organise essential medical, psychological and rehabilitation services in an efficient manner so as to deliver high quality care and reduce waiting times for patients.

The COVID-19 recovery care model is a multidisciplinary service that will first perform a virtual assessment of patients after their admission assigning patients to virtual or in-person follow up tracks depending on their needs. Patients with less acute medical needs will receive virtual follow up by phone after they have a standard assessment and investigations. Patients with greater medical, rehabilitation, psychiatric and psychological needs will have an in-person assessment and may need follow up in a specialised survivorship clinic for 12 months. It is anticipated that approximately 50% of patients who were admitted to hospital will need enhanced follow up. The majority of patients will have integrated care in conjunction with their GP, medical specialities such as respiratory medicine and community psychology.

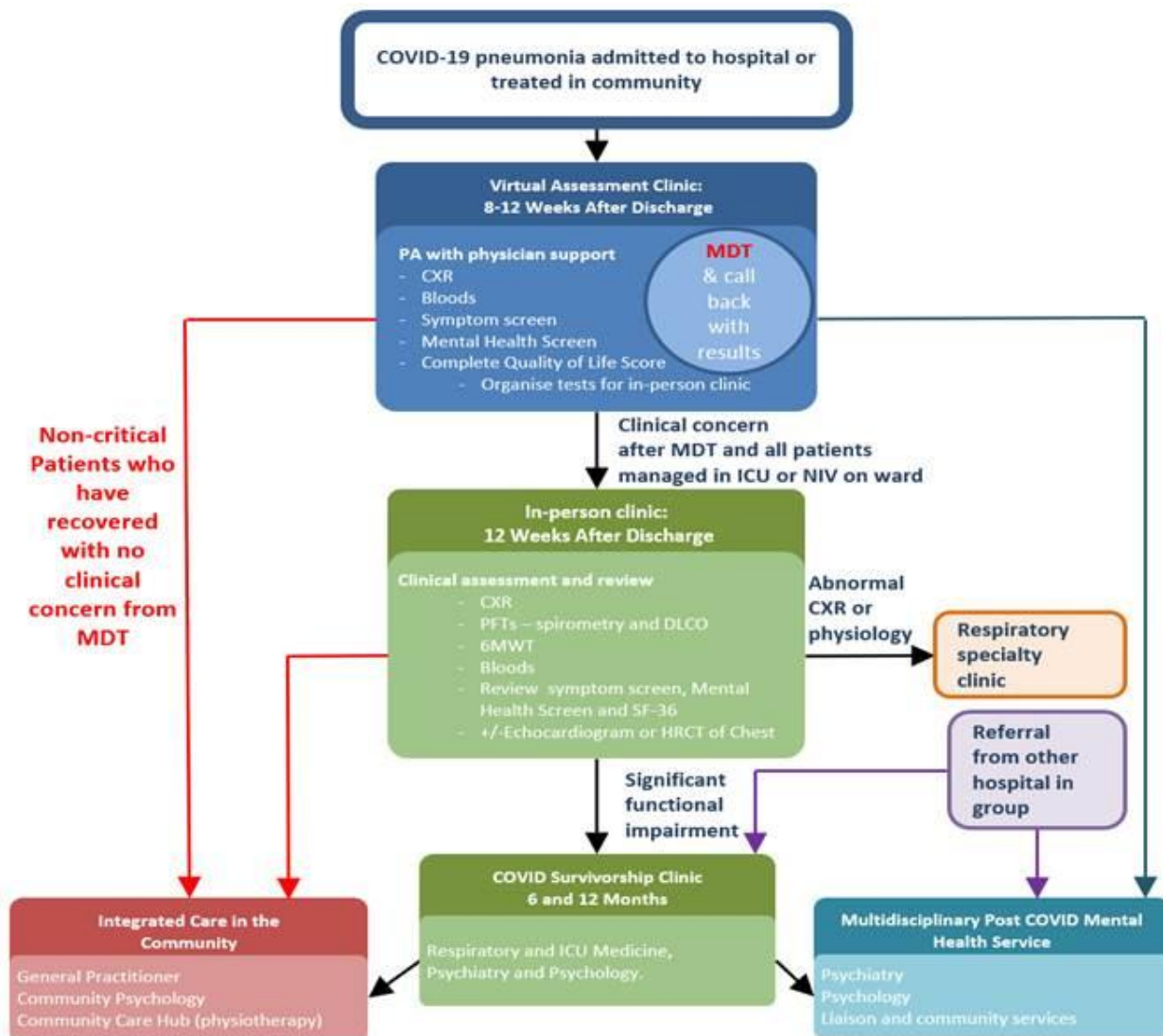
The purpose of this document is to provide a detailed description of the need for a post COVID-19 Clinical Care service consistent with international best practice and guidelines. The clinical care team will be configured by Consultants from Respiratory, Intensive Care Medicine, Infectious Diseases, Psychiatry and Psychology services.

The goal of this service will be to:

1. Optimise assessment and treatment outcomes for patients after COVID-19.
2. Reduce the impact on existing outpatient waiting lists.
3. Reduce reassessment and readmission via the Accident and Emergency Department.

How it will work: COVID-19 Recovery Care model is a multidisciplinary service that will first perform a virtual assessment of patients via a standardised phone consultation followed by discussion at a COVID Recovery multidisciplinary team meeting (MDM). Patients will then be triaged to a virtual or an in-person (enhanced) follow up pathway depending on their care needs.

- Virtual standardised assessment and investigations and virtual follow up.
- Patients with greater medical, rehabilitation, psychiatric and psychological needs will have an in-person assessment.
- Some will require a specialised survivorship clinic for 12 months (Hospital Group Hub Clinic).
- Many patients transferred to an integrated care pathway with their GP and or community psychological services.



Intensive Care Unit (ICU); High Dependency Unit (HDU); Chest x-ray (CXR); multidisciplinary team (MDT); pulmonary function testing (PFT); 6-minute walk test (6MWT); short form health assessment (SF-36); high resolution computer tomography (CT).