National Clinical Programme for Respiratory (COPD & Asthma)

Guidance for the process of incorporating Virtual Telehealth into existing Oxygen Clinics

May 2020 Version 4
1.0 Introduction

In uncertain times and given the need for social distancing, the implementation of telemedicine services is increasing in Ireland. Virtual healthcare is an ideal model to support on-going respiratory services during this period. Utilisation of telemedicine will potentially enable continued access/prevent further service interruption for those in quarantine or where social distancing measures have been enacted or recommended, as well as for those who are situated in rural and remote settings thereby improving access to services for these groups.

The HSE has identified a requirement for service re-designs (systems engineering) to ensure lean principles/ flow processes are applied to service delivery (1). Risk management and quality assurance/improvement processes will be required to underpin this re-configuration of services. There is a need to review all planned OPD attendees to assess for suitability for virtual clinic review and to then consider triage to virtual clinic review. This will help to minimize potential infectious contacts for both the patient and health care professionals. Oxygen Clinics are a service that have been interrupted and could benefit from the appropriate use of virtual clinics.

The use of Long Term Oxygen Therapy (LTOT) in patients with proven hypoxemia (<7.3kPa) up to 24 hours per day offers survival benefit and improvement in physiological indices (2). Continuation of oxygen assessment and review clinics are important components of the Respiratory Patient treatment and Assessment pathway and are essential to minimise the risks associated with prolonged hypoxemia, and ensure delivery of evidence based care as per the national LTOT Guidelines 2015 (3).

In a situation where it is proving difficult to operate an oxygen clinic, some components of the clinic may be supported through Virtual means. Virtual platforms and monitors may help facilitate parts of the overall oxygen assessment such as obtaining the patients clinical history. The Mpower monitoring devices may be deployed for a time period before and after the clinic appointment to provide a more thorough picture of the patients’ oxygen levels and oxygen requirements. There will still be a requirement for patients to attend for an Arterial Blood Gas and 6 Minute walk test where indicated. However the measures introduced will reduce the need for many patients to attend outpatients and in those who do need to attend the patient contact time will be reduced while still allowing for a full, thorough assessment and follow up care. The addition of monitoring and virtual subjective assessment will facilitate the recommencement of these clinics. It may also assist in re-triaging patients who have been on waiting lists for a long period. As with all Oxygen clinics it is recommended that a pathway for the unwell or deteriorating patient who attends clinic is formulated at a local level.

This document has been compiled to support oxygen teams and the review process required for an oxygen clinic, where facets of this patient care pathway are delivered using a virtual platform.
2.0 The Oxygen Clinic Process including possible Virtual Components

Prioritise referral

Triage via telehealth, complete subjective assessment and remote monitoring of SpO2, HR & BORG

Stratify patients for face to face appointment according to findings

High Priority*
SpO2 indicative of potential need for ABG ± LTOT

Face to face appointment needed for ABG and/or AOT assessment

Moderate Priority**
SpO2 at rest sufficient Indication for AOT assessment

Consider virtual assessment for AOT using 1MSTST*** for low risk patients only who:
- Already have oxygen in place
- Don’t have oxygen but are active at baseline
- Have support at home at time of testing to supervise safety and well-being of patient

Low Priority
- Review oxygen patients deemed to be stable on current prescription
- New patients where ABG/AOT not indicated

Virtual assessment sufficient
Patient discharged or placed on waiting list for face to face review when appropriate to do so

Consider arranging a face to face appointment for 6MWT if required.
Patients with resting stable oxygen saturation (SpO2) of ≤ 92% should be assessed with an arterial blood gas (ABG) assessment in order to assess eligibility for LTOT. In patients with clinical evidence of peripheral oedema, polycythaemia (haematocrit ≥55%) or pulmonary hypertension, LTOT assessment may be considered at SpO2 levels ≤94% to identify patients with a resting PaO2 ≤8 kPa (3).

** Patients should be assessed for AOT on an individual basis taking into consideration their daily activities, treatment regime and active lifestyles. For patients who may be self-isolating or have low activity levels, there will be less need for ambulatory oxygen at this time; however, AOT may be required to facilitate hospital appointments.

***1 minute sit to stand test (1MSTS) has been shown to be well correlated with the 6 minute walk test (6MWT) (5). This is an effective and likely easier outcome measure to use in a virtual clinic capacity.

### 3.0 Procedure for the use of Virtual telehealth and virtual monitoring in Oxygen Assessment

A patient is identified by the clinic team as suitable for Virtual telehealth and monitoring.
- The Oxygen team will contact the patient and consent the patient over the phone.
- Following consent, if choosing to use the patient Mpower application, the patients' details will be uploaded to the patient Mpower portal and the VPR team will arrange for delivery of an oximeter to the patient. They will be delivered directly to the patient and will need to be ordered in advance. The oxygen clinic will decide at local level when the monitoring of the individual will commence relevant to their clinic appointment date.
- When patient details are uploaded onto the mPower portal, this triggers an e-mail to be sent to the patient prompting them to download the mPower App to their smart device. Data will include SpO₂, HR and Borg score. If the oximeter has Bluetooth connectivity this data will upload automatically when Bluetooth is connected and devices sync. This can be inputted manually by the patient or VPR team if Bluetooth enabled device is not available.
- If a patient does not have the means to input the data the assessor will manually input data should it be required.
- It is not essential to use the patient Mpower App. Monitoring can take place in the clinic on the day but will increase face to face contact time.
- The patient will be sent an email with instructions on how to access the chosen platform, Attend Anywhere, Microsoft Teams, WebEx.

In some cases, many patients may have access to their own pulse oximeter, and patients can feedback saturations and heart rate if they are confident to do so.

Alternatively, mPower monitors are available during the Covid19 pandemic to measure patients SpO2 and heart rate (Appendix 1 for further information).
3.1 Face to face Appointments (1,6)

- Refer to local guidelines and policies in your hospital or community area.
- Where possible, support single patient visits where a patient is attending multiple providers within one appointment visit.
- Pre-screen patients for symptoms of Covid-19 prior to attending.
- Follow local and national PPE guidelines.
- All patients to wear surgical masks if tolerated and hand sanitise prior to entering for appointment.
- Where possible, ask patients to attend alone, or with no more than 1 family member.
- Patients should avoid using public transport if possible.

4.0 Prioritisation of Waiting Lists

If providing oxygen clinics remains difficult locally, and waiting lists are increasing due to a combination of service disruption and high volumes of referrals, a prioritisation system may be required. Such as system may include the use of Virtual telehealth for elements of the patient’s assessment and Mpower monitoring in the manner previously described.

If this is the case, then the following prioritisation system may be useful.

- Review current waiting list and re-prioritise.
- Refer to national guidelines and local guidelines regarding waiting list Key Performance Indicators.
- Use clinical judgement and review each referral on an individual basis.
- Consider the following as a guide for structuring priorities (4);

<table>
<thead>
<tr>
<th>Category 1 (high priority)</th>
<th>Category 2 (medium)</th>
<th>Category 3 (low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New LTOT Oxygen Assessments</td>
<td>New Ambulatory Oxygen Therapy (AOT) assessments (Consider if patient is self-isolating, less need for AOT at this time and may be able to review at later date)</td>
<td>Patients due for annual review</td>
</tr>
<tr>
<td>Follow-up hospital discharges (after 8 weeks stability)</td>
<td></td>
<td></td>
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<tr>
<td>Follow up Covid 19 discharges (after 2 weeks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider patients with a more progressive disease trajectory (e.g. Idiopathic Pulmonary Fibrosis)</td>
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Acknowledgments

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Approved by CAG 20/05/20

Approved by Dr. Orlaith O’ Reilly National Clinical Advisor and Programme Group Lead for Health and Wellbeing, Strategic Planning and Transformation 22/05/20
Appendix 1 Information on remote monitoring from Mpower

On initial triage by a member of the Oxygen Clinic team the patients will be provided with an information sheet on the Mpower app and the use of their data for the purpose of monitoring. This will allow the patient to give informed consent to use the monitoring app. This includes the details that will be used for the app both in the hospital and at home.

Written informed consent will be required to proceed with the app. This will be placed in the patients’ oxygen clinic file with a copy to the patient.

Once patient consent has been received the Oxygen Assessment team will liaise with Mpower to have the device delivered to the patients’ home within a defined timeframe determined by the oxygen team.

Following written informed consent patient details are entered on the patient Mpower portal by the Oxygen Assessment team.

When patient details are uploaded onto the Mpower portal, this triggers an e-mail to be sent to the patient prompting them to download the Mpower app to their smart device.

This data will include SpO₂, HR and breathlessness. If the oximeter has Bluetooth connectivity this data will upload automatically when Bluetooth is connected and devices sync. This can be inputted manually by the patient if Bluetooth enabled device is not available.

Mpower GDPR information

An extensive review of data protection has been completed with the HSE in relation to the early discharge programme for COVID19.

- Data Processing Agreement with HSE signed on 31 March 2020.
- Data Protection Impact Assessment information provided to HSE
- patientMpower is the Data Processor not the Data Controller (HSE is Data Controller)
- Our data protection processes were reviewed by an external consultant and their report shared with the Data Protection Commissioner.
- The in-app consent statements were reviewed and agreed by the HSE and external legal advisers

For further information contact NCP Manager.
References

1. Interim pre-assessment, triage and review of patients in outpatient care settings (new and return). Dr Vida Hamilton, NCAGL Acute Operation, Approved EAG, 29th April 2020 & NPHET 1st May 2020
3. Irish Guidelines on Long Term Oxygen Therapy (LTOT) in Adults 2015
6. Procedure for the Management of Virtual Outpatient Clinics. HSE Schedule Care Transformation Programme, April 2020