

Novel coronavirus (COVID-19) standard operating procedure COVID Oximetry @home

This guidance is correct at the time of publishing. However, as it is subject to updates, please use the hyperlinks to confirm the information you are disseminating to the public is accurate.

Updates to the SOP published on 12 November 2020 are highlighted in yellow.

1.1 Requirement

In November 2020, clinical commissioning groups (CCGs) were recommended to put in place a 'COVID Oximetry @home' model as rapidly as possible, further to [guidance on the use of pulse oximetry](#) first published in June 2020.

This document sets out a base standard for patient self-monitoring. It should not supplant existing arrangements where these are already established and working.

1.2 Entry criteria

The COVID Oximetry @home pathway should be available to people who are:

- i. Diagnosed with COVID-19: either clinically or positive test result **AND**
- ii. Symptomatic **AND EITHER**
- iii. Aged 65 years or older **OR**
- iv. Under 65 years and clinically extremely vulnerable (CEV) to COVID (~~The Clinically Extremely Vulnerable to COVID list should be used as the primary guide. Clinical judgement can apply and take into account~~ **or where clinical judgement applies, taking into account** multiple additional COVID risk factors. ~~;~~ for the most part, it is anticipated that this will already have led to inclusion on the CEV list. National criteria for inclusion on the CEV list are set and updated by government.

~~The national support offer, including oximeter supply, is targeted at this defined cohort.~~

1.3 Staffing and oversight

The default assumption is that the model is primarily implemented in general practice, eg including in hot hubs, working with community teams. NHS England and NHS Improvement have in parallel written to CCGs about supplementary funding arrangements to expand general practice capacity. (£150 million of additional funding has been allocated via CCGs to support GP capacity between now and March.) Referrals of the defined cohorts will also come via 111 COVID Clinical Assessment Service (CCAS), NHS Test and Trace and hospital emergency departments.

Legal responsibility, including ensuring appropriate clinical governance, remains with the relevant CCG. Each CCG should have a named person responsible for the establishment of the service in their area. Clinical, governance and administrative responsibilities included in the pathway can be provided by any appropriately trained person and best use of resources should be made, including asking NHS

Volunteer Responders to transport oximeters and patient packs, and the use of standard scripts to enable non-clinical staff (eg healthcare assistants, care navigators or volunteers) to undertake appropriate activities.

Where relevant, patients may benefit from a review of long-term condition management in the context of acute COVID illness. The responsibility for this lies with the patient's primary care physician and/or hospital specialist.

1.4 Patient journey

Referral (Stage 1)

- Systems should ensure timely referral of patients who may meet the entry requirements from all relevant providers operating within their area, eg NHS 111, Covid Clinical Assessment Service (CCAS), Test and Trace and hospital emergency departments.
- Arrangements will vary depending on how the pathway is delivered, eg through individual primary care networks or a single community health service.
- Patients should be advised to self-isolate in line with current guidance.

Triage (Stage 2)

- Patients referred to the service should have a standard assessment (with potential for face-to-face clinical assessment if deemed necessary), with shared decision-making prior to entry onto the pathway and a discussion about any support requirements for patients or carers. This should happen as soon as possible, and ideally on the same day as the referral.
 - a. If at a hot site, then assessment should be done face to face and a baseline pulse oximetry reading taken; consider home oximetry monitoring if oxygen saturation levels are 95% or higher and proceed to stage 3. If oxygen levels are 94% or less, consider further clinical assessment, or proceeding to stage 3 with the option of more intense clinical assessment and oversight in the community, or hospital admission, eg if 92% or less.
 - b. If contacted by phone or video, consider virtual assessment using a standard questionnaire and the need for a baseline oximetry reading either by visiting a hot site or home visit.

Onboarding (stage 3)

- Patients entering the pathway should be provided with a pulse oximeter and supporting information (including a paper diary which is ~~being made~~ available in

[accessible formats and a variety of languages](#), or suitable app/regular call mechanism), contact details to report oximetry reading/symptoms, and clear [safety netting instructions](#) both in and out of hours. This should be supplied immediately if the patient is seen face to face or within 12 hours if the patient is assessed remotely. Patients should be instructed to attend their nearest emergency department within an hour, or call 999 if their saturation reading is 92% or less, or to contact 111/GP if 93% or 94%.

- For patients not seen face to face, NHS Volunteer Responders are available to help transport oximeters from a locally agreed location to the patient's home. Further details on this can be found at: <https://nhsvolunteerresponders.org.uk/referral>
- Patients should be encouraged to record oximetry readings daily, usually three times a day. Through a shared decision-making conversation, they are also given the option of a prompt at days 2, 5, 7, 10 and 12, either by (a) text message or (b) by e-mail, or instead (c) a non clinician-led check-in phone call.
- Patients should have clear instructions regarding the recognition of deterioration and instructions on the appropriate course of action, with 24/7 access to advice and support. Contact details must be communicated clearly to patients.
- Patients should agree in advance how they will return the oximeter, eg by either the practice or the patient arranging an NHS Volunteer Responder.

Monitoring (stage 4)

- Patients should receive text or email prompts, or check-in calls, as agreed during onboarding. A model message and phone script can be found on the NHS @home Future NHS platform (link below).
- Check-in calls should confirm that the patient is using the oximeter and diary correctly. **If the phone call is clinician led, they may also be used to confirm** the readings are 95% or above. The frequency of these calls can be reviewed with the patient if appropriate.

Recovery and discharge (stage 5)

- Patients who do not show signs of deterioration within 14 days of onset of symptoms should be actively discharged and supplied with leaving information, safety netting and safe advice on how to return the oximeter (eg to hot site, by a friend or family member, or through NHS Volunteer Responders). Model advice can be found on the NHS @home Future NHS platform (link below)
- Patients may be on the pathway for a shorter period either if they have been awaiting a test result and this is negative, or subject to clinical review.

- Patients who remain symptomatic at 14 days should receive a further clinical assessment and action taken as clinically appropriate.
- At the end of this stage, a friend or family member, or an NHS Volunteer Responder, collects and returns the oximeter for decontamination and reuse, as agreed as part of the onboarding conversation.

1.5 Oximeter supply and safe re-use

Oximeters for home use must meet ISO 80601-2-61:2017 and be CE marked.

Particular care needs to be given to ensuring reliable arrangements are in place for same-day oximeter distribution to patients, and their subsequent decontamination and reuse. **Cleaning procedures for oximeters must follow manufacturers' instructions. Liquids should generally not be used on these devices due to the risk of fluid ingress damaging circuits. Disinfectant wipes should be used where possible.**

A supply of pulse oximeters is available to CCGs based on national modelling assumptions of case demand. ~~using the entry criteria in section 1.2 above. If local systems wish to extend the service beyond the defined groups, they will need to resource this locally, including provision of additional oximeters.~~ CCGs can request suitable oximeters from NHS Supply Chain in batches of 100, to be stored locally as appropriate for anticipated demand. Oximeters can be requested by emailing england.home@nhs.net. Once the order is agreed, delivery to the requesting CCG should be made within three working days. When requesting oximeters it is important to include the population numbers covered and where the service is sited.

Prior to being distributed to patients, and on return from them, oximeters must be decontaminated in line with [infection control policies](#) for reusable electronic equipment. They must be checked that they are functional and safe for re-use prior to being allocated to new patients. This should be done in line with local and national guidance for reusable electronic clinical monitoring equipment.

It is important to note that CCGs must ensure there are wholly reliable local arrangements in place for timely distribution, decontamination and re-use of sufficient oximeters.

Oximeters must be available for same-day distribution to patients, including out-of-hours. Patients should ideally not have to wait more than 12 hours to receive an NHS oximeter.

1.6 Care homes

People living in care homes should receive the same standard of care as someone in their own home. This should be facilitated by care home staff and other supporting services. This should include full escalation or emergency admission or potential emergency home oxygen treatment and palliative treatments where appropriate.

Training and support for using pulse oximetry is available [via the Care Provider Alliance](#) and [e-Learning for Healthcare resources](#). The COVID Oximetry @home monitoring diary has **also** been tailored for care home usage (see NHS @home Future NHS platform – link below). Any further support required in setting up the pathway within the care home can be provided through the care home's named clinical lead in the first instance.

1.7 Coding, record keeping and data requirements

SNOMED codes specific to home monitoring of COVID-19 patients can be accessed on the [NHS Digital website](#). A number of templates have been created by local integrated care systems (ICS) as well as by Ardens, EMIS, TPP, Cegedim and accuRx.

All relevant information should be recorded in the patient record, including if a patient declines the pathway.

NHS Digital is sharing data with COVID Oximetry @home providers to assist in identifying patients who may be onboarded onto local pathways. To receive this daily list please contact dataliaison@nhs.net.

COVID Oximetry @home providers are required to submit data on COVID Oximetry @home patients on a weekly basis to NHS Digital SDCS. For further information or support please contact dataliaison@nhs.net.

1.8 Further support

Details of further advice, guidance and training materials including academic health science networks (AHSNs) and patient safety collaborative contacts for bespoke support is available on the NHS @home Future NHS platform:

<https://future.nhs.uk/NHSatH/grouphome>.

Any safety concerns regarding oximeters should be reported to the MHRA via the COVID yellow card scheme (select 'other devices/equipment'; <https://coronavirus-yellowcard.mhra.gov.uk/>) and NHS England and NHS Improvement informed

england.home@nhs.net). Local clinical engineering departments and medical device safety officers (MDSOs) should also be informed.

If there are any issues accessing the site or for further queries, please email england.home@nhs.net.