Annex 2: Remote monitoring COVID-19 diary

19 November 2020, Version 1.1

This is suggested content for a COVID-19 diary that patients could use under clinical supervision to support remote monitoring of patients with confirmed or possible COVID-19.

Pulse oximeter for heart rate and blood oxygen level

Your doctor has given you, or your carer, this diary and pulse oximeter because you have symptoms of COVID-19. A pulse oximeter helps you monitor how fast your heart is beating and the level of oxygen in your blood. Blood oxygen level is the most accurate way of keeping an eye on your progress with COVID-19. An ideal blood oxygen level is between 95% and 99%. An ideal heart rate is between 50 and 90 beats per minute (bpm).

How to use a pulse oximeter

Follow these instructions to make sure the pulse oximeter gives an accurate reading (diagram to right courtesy of Denis Barbulat):

- Remove any nail polish or false nails and warm your hand if cold.
- Make sure you have been resting for at least five minutes before taking your measurement.
- Rest your hand on your chest at heart level and hold still.
- Switch the pulse oximeter on and place it on your finger. It works best on your middle or index finger (see diagram). It should not be used on your ear.
- The reading takes time to steady. Keep the pulse oximeter in place for at least a minute, or longer if the reading keeps changing.
• Record the highest result once the reading has not changed for five seconds.
• Be careful to identify which reading is your heart rate and which is your oxygen level.

You can also watch an NHS YouTube video on how to use a pulse oximeter.

Decontamination: If you are handling equipment or items (eg pulse oximeters) used on/by patients with suspected COVID-19, then please wash your hands carefully after touching the equipment, and if being used on different patients then ensure that it is cleaned between each patient, following the published guidance.¹

Recording and acting on the results

Record your results in the diary below.

Your first measurement is your baseline – so record this in the highlighted blue area. Then take recordings three times a day, at the same time each day – for example when you normally eat in the morning, at lunchtime and in the evening. Take extra measurements if you feel there has been a change in your health. Please also record changes in how you are feeling and your breathing.

Keep track of your temperature if you can. However, as long as your oxygen level and breathing are normal, you do not need to contact your GP/NHS 111 if you have a temperature or other symptoms, such as cough, muscle aches, tiredness and change in taste or smell. Paracetamol and regular fluids can help with these symptoms, and most people will get better by themselves within two to three weeks. Please see the NHS website for information on self-isolation or how to access care.

What to do if you experience the following symptoms:

**Attend your nearest A&E or call 999 immediately** if you have one or more of the following and tell the operator you may have coronavirus:

- You are **unable to complete short sentences when at rest** due to breathlessness.
- Your **breathing suddenly worsens** within an hour.
- Your blood oxygen level is 92% or less. Check your blood oxygen level again straight away – if it’s still 92% or below, go to A&E immediately or call 999

**OR** if these more general signs of serious illness develop:

- you are coughing up blood
- you feel cold and sweaty with pale or blotchy skin
- you develop a rash that does not fade when you roll a drinking glass over it
- you collapse or faint
- you become agitated, confused or very drowsy
- you have stopped peeing or are peeing much less than usual.

If you have a pulse oximeter, please give the oxygen saturation reading to the 999 operator.

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**Ring your GP or 111 as soon as possible** if you have one or more of the following and tell the operator you may have coronavirus:

- You slowly start feeling **more unwell or more breathless**.
- You are having difficulty breathing when getting up to go to the toilet or similar.
- If you use a pulse oximeter, your blood oxygen level is 94% or 93% when sitting or lying down, and remains at this level after being rechecked within an hour.
- You sense that something is wrong (general weakness, extreme tiredness, loss of appetite, reduced urine output, unable to care for yourself – simple tasks like washing and dressing or making food).

If your blood oxygen level is usually below 95% but it drops below your normal level, call 111 or your GP surgery for advice.
Family and friends checking you are safe

It is important that someone checks on you regularly. If you are isolating from other people in the same house as you, talking on your phone or through a doorway could be better than sending text messages. It will help them hear if you are becoming more breathless or unwell. If you live alone, you should arrange to contact someone regularly. Ask them to ring you if you don’t contact them as planned and ask them to seek help if you don’t answer.

If you are still unwell after three weeks, please contact your GP.

Returning the pulse oximeter

When you no longer need the device, please return it to your GP surgery. If you are shielding please ask a friend or volunteer to do this for you. You should return it in the bag provided so that it can be safely cleaned and given to other patients.

You are likely to have it for 14 days from the onset of your illness. We do see some patients who feel unwell again after the first week of symptoms, so please keep the oximeter until the full 14 days have passed.

Please return the diary along with the pulse oximeter so you can help the NHS learn how best to help other patients with COVID-19.
Remote monitoring COVID-19 diary

First name __________________________ Surname __________________________
Date of birth _______ Age _____ NHS number ___________
Live alone ☐ Carer at home ☐

Please record these three times a day

<table>
<thead>
<tr>
<th>Days since first symptoms *</th>
<th>Date</th>
<th>Pulse</th>
<th>Oxygen level %</th>
<th>Temperature*</th>
<th>Feeling: better/same/worse</th>
<th>Breathing: better/same/Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline reading</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* That is, if you start recording pulse oximetry five days after your first symptoms started, record ‘5’ under Day.

* Record and fill in temperature if you have a thermometer.