

To: All clinical staff

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COVID-19 Clinical Decision Tool

A new COVID-19 Clinical Decision Tool has been developed for clinicians ('face to face' or 'hear and treat'), with a view of supporting safe disposition decisions.

Throughout the COVID-19 pandemic, our understanding of the virus as a disease process has continued to develop both in identifying transmission and severity. This has resulted in opportunities to review previous guidance issued to ambulance clinicians.

This tool has been developed in conjunction with all UK ambulance services and has been approved by National Ambulance Medical Directors (NASMeD) group on behalf of the Association of Ambulance Chief Executives (AACE). The tool will soon be added to JRCALC Clinical Practice Guidelines and available to all UK ambulance Trusts to use.

With **immediate effect**, ambulance clinicians are to **use this tool** to support decisions surrounding disposition in patients where the **most likely working impression is COVID-19**.

Applying the tool:

A clinician **must** undertake a **thorough clinical examination**, then consider the likely differential diagnosis based upon patient presentation, clinical findings and history. Once other pathologies have been excluded, **if the best working impression is COVID-19 then this tool should be utilised**.

Patients with severe or moderate symptoms will be conveyed to hospital unless an advanced care/treatment plan is in place. Consideration should be made to pre-alerting the patient.

If a patient is presenting with mild symptoms, they **may** be suitable for non-conveyance with appropriate safety netting, worsening advice and referral. It is important that if non-conveyance is being considered an **exertion test** is performed. Experience of COVID-19 has shown exertion tests are an effective predictor at identifying those at most risk of deterioration. Two different exertion tests are recommended, ambulance clinicians should **select the most appropriate test for their patient**. Where it is felt that neither can be safely undertaken for their patient, then please discuss with the Clinical Advice Line (CAL) in the first instance.

The sit-to-stand test:

- Using a standard height chair (ideally without armrests) positioned against a wall
- The patient needs to be seated upright on the chair with knees and hips flexed at 90°
- Ask patients to put hands on hips (or folded across their chest) and arms are kept stationary
- Record heart rate and oxygen saturations on air

CLINICAL INSTRUCTION

COVID-19 Clinical Decision Tool - continued

- Check that the patient’s oxygen saturations are above 94% before proceeding.
- Ask patient to stand straight upright and then sit down again, repeating this for 1 minute. Their bottom must contact the chair on each repetition
- Record the number of times they can do this in 1 minute. There must be a minimum of 5 cycles for the test to be diagnostically significant
- Re-measure the patients pulse oximetry levels after exercise

40-step test:

- The patient is instructed to remain where they are – with a suitable face mask on
- Attach an oxygen saturation probe and ensure a good pleth trace
- Check that the patients oxygen saturations are above 94% on air
- Ask the patient to walk on the spot for 40 steps
- Re-measure the pulse oximetry levels after exercise

In either test, a reduction in oxygen saturations of 3% or more is significant and admission should be considered, though any reduction in oxygen saturations may be clinically important.

For patients with normally low oxygen saturations (i.e. those with COPD) please follow the asterixed guidance in the flow chart.

DECISION SUPPORT TOOL for ADULTS WITH CONFIRMED / SUSPECTED COVID (AMBULANCE)

Face to face assessment <small>Assess using pulse oximetry, history and full set of observations</small>		Non-COVID/other pathologies <small>Ensure that non-COVID conditions are considered in particular other causes of deterioration</small>
Always review advanced care/treatment plans**		
Chest examination often normal. ‘Silent hypoxia’ is common <small>Asymptomatic presentations with low O₂ sats (often with normal RR, HR & other obs)</small>		
<p style="text-align: center;"><u>SEVERE</u></p> <p style="text-align: center;">O₂ 92%* or lower</p> <p style="text-align: center;">Or any of RR ≥ 25, HR ≥ 131 ≈ NEWS2 ≥ 5</p> <p style="text-align: center;"><small>*Or if O₂ sats >4% less than usual</small></p>	<p style="text-align: center;"><u>MODERATE</u></p> <p style="text-align: center;">O₂ 93 - 94%*</p> <p style="text-align: center;">Or any of RR 21-24, HR 91-130 ≈ NEWS2 3-4</p> <p style="text-align: center;"><small>*Or if O₂ sats 3-4% less than usual</small></p>	<p style="text-align: center;"><u>MILD</u> – must be able to undertake activities of daily living</p> <p style="text-align: center;">O₂ 95%* or higher</p> <p style="text-align: center;">RR ≤ 20 AND HR ≤ 90 ≈ NEWS2 0-2</p> <p style="text-align: center;"><small>*Or if O₂ sats are 1-2% less than usual</small></p>
HOSPITAL CONVEYANCE with pre-alert	HOSPITAL CONVEYANCE with pre-alert	<small>If considering non conveyance, do exertion test (40 step walk or 1 min sit-to-stand tests & consider admission if concern or if ≥ 3% reduction.</small>
High risk MUST seek senior clinical advice may be suitable for virtual ward		
Not high risk: Consider HOME MANAGEMENT		
Remember Safety Netting		

v1.3 NHS E / I 01 December 2020

If considering non conveyance, do exertion test (40 step walk or 1 min sit-to-stand tests) & consider admission if desaturation or clinical concern	
Sit to Stand Test (STST) <ul style="list-style-type: none"> Use a standard height chair without armrests positioned against a wall The patient needs to be seated upright on the chair with knees and hips flexed at 90° feet placed flat on the floor and hip width apart Ask patients to put hands on hips (or folded across their chest) or arms are kept stationary Record heart rate and O2 saturation O2 saturation above 94% to proceed Ask patient to stand straight upright and then sit down again and repeat this for 1 minute. Their bottom must contact the chair on each repetition Record the number of times they can do this in 1 minute. There must be a minimum of 5 cycles for the test to be diagnostic <p style="color: green; margin-left: 20px;">Pass – SaO2 remains >94%, or their expected</p>	Key assessment points <ul style="list-style-type: none"> Establish duration of illness – day 3-10 is the higher risk period Ask about sudden increase in SOB or rapidly worsening SOB over hours or increased SOB Ask about red flags/high risk patient groups / previous contact with health care providers Medication history – consider patients who are on beta blockers may not become tachycardic Ask about patient support structure Consider patients overall condition and level of fatigue Is there an advanced care/treatment plan in place (think about frailty based on the patient's baseline function two weeks prior to being unwell) Use ambulance pulse oximeter-not patients own Clinicians should specifically establish if a patient is in a high risk group and ensure this is considered in any decisions regarding on going care
40 step Method: only if unable to do sit to stand -Is this appropriate? – Could the patient walk 40 steps before they were ill? -Patient remains where they are – with mask on -Attach Sats probe – ensure good trace -Walk on spot 40 steps -Monitor SaO2 <ul style="list-style-type: none"> Pass – SaO2 remains >94%, or their expected 	
Any desaturation during exercise tests may be clinically significant - evidence of fatigue or 1-2% desaturations should be considered for senior clinical advice	
**If advance care/treatment plan in place consider community/palliative care where appropriate	
Consider the overall health status of the patient and the likely reversibility of the acute illness, to further guide management. Access personalised care plans and follow directions where appropriate Evidence has indicated that patients with Covid-19 may become symptomatic very quickly and rapidly deteriorate in a few hours or less. Therefore, symptom control is a priority.	Patients at the point of dying will likely experience respiratory distress and may not benefit from oxygen. Refer to JRCALC End of Life Guidance and Covid Specific supplementary guidance Encourage shared decision making using local specialist advice lines to support appropriate outcome, assessment and conveyance. <p style="margin-left: 20px;">• No decision should be made in isolation.</p>

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