Clinical Decision Support for Suspect Adult COVID-19 for Acute Hospitals

Use this tool if the patient has fever/chills and/or signs/symptoms of respiratory tract infection

Actions:
- **For Patient:** alcohol gel hands, put on a surgical mask and be appropriately isolated (minimum requirement is social distancing > 1m ideally 2m).
- **For IPC:** Use contact and droplet precautions and avoid unnecessary or ineffective aerosol generating procedures (AGPs)*.

Signs and Symptoms:
- **Most common:**
  - Cough
  - Shortness of breath
  - Myalgia
- **Less common:**
  - Anorexia
  - Sputum production
  - Sore throat
  - Dizziness
  - Headache
  - Rhinorrhea
  - Haemoptysis
  - Nausea/vomiting
  - Diarrhoea
  - Abdominal pain
  - Conjunctival congestion
  - Chest pain

Red flags:
- **Consider critical care early for assessment:**
  - RR > 30 breaths/min
  - Severe respiratory distress
  - New onset SpO₂ < 90% on room air
  - New onset confusion
  - Hypotension
  - Oliguria > 12 hours
  - Initial INEWS ≥ 7
  - Clinically deteriorating patient with INEWS ≥ 5

**Risk factors for severe disease:**
- Ischaemic heart disease
- Hypertension
- Cerebrovascular disease
- Type II diabetes
- Obesity
- Active malignancy in last 5 years
- Chronic lung disease
- Chronic renal disease
- Chronic liver disease
- Extremely medically vulnerable

**Monitor all non-pregnant adult patients using the INEWS, follow escalation and response protocols.**

<table>
<thead>
<tr>
<th>Score</th>
<th>Respiratory Rate (bpm)</th>
<th>SpO₂ (%)</th>
<th>Inspired O₂ (Fi O₂)</th>
<th>Systolic BP (mmHg)</th>
<th>Heart Rate (BPM)</th>
<th>ACVPU/ CNS Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>≤ 8</td>
<td>≤ 91</td>
<td>1 ≤ 2</td>
<td>≤ 91</td>
<td>≤ 40</td>
<td>Alert (A)</td>
</tr>
<tr>
<td>2</td>
<td>9 - 11</td>
<td>92 - 95</td>
<td>21 - 24</td>
<td>91 - 100</td>
<td>41 - 50</td>
<td>Alert (A)</td>
</tr>
<tr>
<td>3</td>
<td>12 - 25</td>
<td>≥ 96</td>
<td>≥ 25</td>
<td>101 - 110</td>
<td>51 - 90</td>
<td>Alert (A)</td>
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<tr>
<td></td>
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<td></td>
<td>111 - 249</td>
<td>91 - 110</td>
<td>Alert (A)</td>
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<tr>
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<td></td>
<td>≥ 250</td>
<td>111 - 130</td>
<td>Alert (A)</td>
</tr>
</tbody>
</table>

**Initial management:**
- Oxygen for sats ≥ 94% (88-92% in chronic hypoxic lung disease)
- Community acquired pneumonia (CAP) antibiotics (local antimicrobial guideline)
- Anti-virals (as per Acute Hospitals guideline)
- Paracetamol (for fever and/or myalgia)
- Don’t forget VTE prophylaxis

**Fluid management:**
COVID-19 may cause severe lung injury, which can be aggravated by excess intravenous fluid administration. IV fluids should only be given if there is a clinical indication such as hypotension; raised lactate or the patient is unable to tolerate oral fluids.

**Preliminary Tests & Investigations:**
- **COVID** swab
- **ABG/VBG**
- **CXR**
- Blood cultures
- **FBC**
- **U&E, LFTs**
- Coagulation screen
- **CRP**
- Troponin
- Creatinine Kinase
- **LDH**
- **d-dimer**
- Ferritin

**WHEN TO ESCALATE TO CRITICAL CARE:**
Consider critical care review in a patient with an INEWS ≥ 7 or clinically deteriorating patient with an INEWS ≥ 5.

The decision to admit to ICU rests with the duty anaesthesiology/critical care team.

* Aerosol generating procedures (AGPs):
  - Intubation, bronchoscopy and certain chest physiotherapy – should occur in a single room and with the minimum staff present and using airborne precautions, www.hpsc.ie
  - Non-invasive ventilation and high-flow nasal oxygen therapy are AGPs and are NOT recommended outside of isolation rooms, senior decision makers should be involved. Individuals who use NIV at home should continue this therapy in an isolation room.
  (Nebulisers and throat/nasal swabbing are NOT aerosol generating.)

References:
- Irish National Early Warning System (INEWS) Scoring Key
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