Specialty guides for patient management during the coronavirus pandemic

Reference guide for emergency medicine

22 April 2020 Version 5

This guide is being updated to reflect changes to the case definition for COVID-19 from 18 May 2020 and will be republished soon.

These charts, checklists, tools and care record are collated from NHS England and NHS Improvement publications, for ease of reference in assisting and informing how each trust can respond to the current challenges relating to COVID-19.

They were not created to be comprehensive and local adaptation to reflect local circumstances and increasing understanding of the disease is assumed. They do however provide clear guidance on a cohesive revised approach to:

1. Which patients should/should not be conveyed to hospital?
2. Emergency department approach to streaming during the COVID-19 pandemic
3. Emergency department/AMU patient admission criteria for COVID-19 and non-COVID-19 patients
4. Emergency department documentation for suspected COVID-19 patients
5. Radiology guidelines for COVID-19 patients
6. Same-day emergency care ‘must do/priorities’
7. Discharge of inpatients – reasons to reside in an acute hospital bed
**Reason to admit (to an acute hospitals) checklist**

<table>
<thead>
<tr>
<th>Physiology</th>
<th>Therapy</th>
<th>Investigation/ Observation</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEWS2 $\geq$ 3</td>
<td>Oxygen therapy</td>
<td>Cardiac monitoring</td>
<td>Diminished level of consciousness</td>
</tr>
<tr>
<td></td>
<td>Intravenous fluids</td>
<td>Urgent endoscopy</td>
<td>Acute impairment neurological / musculoskeletal</td>
</tr>
<tr>
<td></td>
<td>i.v. medication $&gt;$ b.d.</td>
<td>Toxicological sequelae</td>
<td>in excess of home/community care provision</td>
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<td></td>
<td>Interventional Rx Surgery/ PCI/ IR</td>
<td></td>
<td>Last hours of life - all admitted patients</td>
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<td></td>
<td></td>
<td></td>
<td>must have a TEP</td>
</tr>
</tbody>
</table>

Same-day emergency care should always be considered – admission may be required but is seldom the default option.
ED/AMU coronavirus assessment tool

**Green**
- NEWS2 < 3
- Sats ≥ 95%

**Amber**
- NEWS = 3 or 4
- Sats 93% or 94% or desaturates on 40 step test*

**Red**
- Marked dyspnoea
- NEWS ≥ 5 or Signs of sepsis
- Sats ≤ 92%

**Senior review**
- Admit or discharge with safety netting on basis of full assessment

**No desaturation**
- 40 steps desaturation test*
- Home with advice

**Important co-morbidities**
- Hypertension
- Diabetes
- Respiratory disease
- Cardiovascular disease

**For ALL admitted patients**
- IX should include
  - CXR
  - FBC (n.b. leukocytopenia)
  - CRP
  - Troponin
### Reference guide for emergency medicine

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Prescriber (sign/name)</th>
<th>Given by</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Paracetamol</td>
<td>1 g</td>
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### Oxygen prescription

<table>
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<tr>
<th>Date</th>
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</table>

#### Results

<table>
<thead>
<tr>
<th>Results</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifact or various</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCO2 (mmHg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lactate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEV1 or FVC D</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Core escalation plan: (tick all appropriate boxes)

- [ ] DNACPR
- [ ] Highest level of care appropriate
- [ ] Ward
- [ ] HDU
- [ ] ICU

#### Decision made by: [Name] (Grade) (Signed)

#### Review: Date and time

- [ ] DNACPR
- [ ] Highest level of care appropriate
- [ ] Ward
- [ ] HDU
- [ ] ICU

#### Decision made by: [Name] (Grade) (Signed)

- [ ] Respect/Equivalent form completed
- [ ] Patient/relatives aware
  - Yes / No

### Comorbidities

#### Obesity Comorbidity score

- 1 each for:
  - Hypertension
  - Obstructive sleep apnea
  - COPD
  - Chronic kidney disease
  - Diabetes with complication
  - Metabolic syndrome
  - Atrial fibrillation
  - Rheumatological disease

- 2 each for:
  - Congestive heart failure
  - Renal disease
  - Diabetes
  - Acute myocardial infarction
  - Renal disease
  - Peptic ulcer disease
  - Chronic liver disease
  - Metastatic solid tumour

- 3 each for:
  - HIV/AIDS
  - Atrial fibrillation

- 4 each for:
  - Multiple organ failure

- 5 each for:
  - Malignancy (no metastasis)
  - Severe liver disease
Radiology decision tool for patients with suspected COVID-19

Suspected COVID-19

- Clinical assessment and labs
  - < 50% have fever but > 80% have lymphopenia
  - Sats <94% or NEWS>3

- Stable
  - Sats > 94%, NEWS <3
  - If clinically required
  - CXR

- CXR
  - Bilateral (peripheral) opacification**
  - Uncertain/Normal
    - CT SCAN*** (Pre-contrast ± CTPA)
  - Non-COVID-19 disease
    - Don't isolate
  - Abnormal CXR
    - ? COVID-19
    - Self Isolate with follow up
  - Normal CXR
    - Home with advice
    - Self Isolate

Seriously ill

- Sats <94% or NEWS>3
  - CXR

- CXR
  - Definite/Probable COVID-19 pattern**
  - Isolate

- Indeterminate
  - Clinico-radiological review

*94% unless known COPD in which case <90%

** Unsuspected/unexpected cases may be incidentally discovered on CXR/CT at this stage; should be reviewed in the context of clinical suspicion as to likelihood of COVID-19.

*** Classic and indeterminate CTs should be scored either: ‘mild’ or ‘moderate/severe’

Please upload all COVID 19 cases to BSTI database: https://www.bsti.org.uk/training-and-education/covid-19-bsti-imaging-database/
# SDEC priorities

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</table>
| **Respiratory**   | Pneumonia/COPD without oxygen/NIV requirement  
|                   | May need initial antibiotics and assessment of response (yet may not require overnight stay)  
|                   | Asthmatic PEFR >75% best or predicted PE without physiological compromise  
| **CNS**           | Stroke with residual deficit not affecting ADLs  
|                   | TIA  
|                   | Cognitively impaired patient with minor head injury (GCS 15) taking oral anticoagulation  
|                   | Seizure patient who has recovered  
| **Gastro**        | Haemodynamically stable GI bleed  
|                   | Gastroenteritis taking oral fluids with normal/minimally changed U&Es  
| **Cardiovascular**| New non-ventricular dysrhythmia adequately rate controlled  
|                   | ? ACS without high sensitivity troponin elevation at 6 hours  
|                   | Syncope without ECG conduction defect, rhythm disturbance or hypotension  
| **MSK**           | Patients requiring physio/analgesia alone  
|                   | Upper limb fracture  
|                   | Fracture of the lower limb except femur, tibia, calcaneum  
|                   | Dislocation once reduced  
|                   | Minor stable vertebral fractures  
| **General surgery**| Renal/biliary colic in whom pain is controlled  
|                   | Abdominal pain with normal CT and pain controlled  
|                   | Abscess not showing signs of sepsis  
|                   | Haematuria without clot retention, hypotension or anaemia  
| **Bacterial infection**| NEWS ≤3 with clinical decision for oral antibiotic or SDEC IV  
| **Toxicology**    | Overdose patients with non-toxic levels or asymptomatic 6-12 hours after ingestion (guided by Tox-base)  
| **Other**         | Patient on end-of-life pathway or for whom ceiling of care does not require hospitalisation |
Reason to reside – a checklist for acute hospital beds

**Physiology**
- NEWS2 ≥ 3
- Oxygen therapy/ NIV
- Intravenous fluids
- IV medication > b.d.

**Therapy**
- Lower limb surgery within 48hrs
- Thorax-abdominal/pelvic surgery with 72 hrs
- An invasive procedure within 24hrs

**Recovery**
- Diminished level of consciousness
  Where recovery realistic
- Acute impairment
  In excess of home/community care provision
- Last hours of life
  All admitted patients should have a TEP

Every patient on every general ward should be reviewed on a twice daily board round using the checklist above. If the answer to each question is **No**, active consideration for discharge to a less acute setting must be made.