Specialty guides for patient management during the coronavirus pandemic

Reference guide for emergency medicine

22 April 2020 Version 5

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
<table>
<thead>
<tr>
<th>Front door</th>
<th>Binary triage</th>
<th>Severity assessment</th>
<th>Ix/ Rx</th>
<th>Result</th>
<th>Action</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front door</td>
<td>Binary triage</td>
<td>Severity assessment</td>
<td>Ix/ Rx</td>
<td>Result</td>
<td>Action</td>
<td>Place</td>
</tr>
<tr>
<td>Front door</td>
<td>Binary triage</td>
<td>Severity assessment</td>
<td>Ix/ Rx</td>
<td>Result</td>
<td>Action</td>
<td>Place</td>
</tr>
<tr>
<td>Front door</td>
<td>Binary triage</td>
<td>Severity assessment</td>
<td>Ix/ Rx</td>
<td>Result</td>
<td>Action</td>
<td>Place</td>
</tr>
</tbody>
</table>

- **Front door parallel streams**

- **Severity assessment**
  - Seriously ill i.e. Sats < 94% (<90% if COPD) And/or NEWS>=3
  - Not seriously ill (Sats > 94%/90%) & NEWS<3
  - Red flags
  - No red flags

- **Ix/ Rx**
  - O$_2$ Rx to keep sats > 94% (90% if COPD) + restrict IV fluids
  - Clinical assessment + CXR if clinically indicated

- **Result**
  - CXR - Bilateral changes
  - CXR inconclusive Proceed to CT

- **Action**
  - Treat as CoVID probable
  - Treat as Non CoVID disease
  - Advised to return if dyspnoea worsens

- **Place**
  - Cohorted with Screen
  - General Ward/HDU
  - Home and self isolate
  - Usual place of residence
### 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 ≥ 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>
</tr>
<tr>
<td></td>
<td>Interventional Rx Surgery/ PCI/ IR</td>
<td></td>
<td>Last hours of life - all admitted patients 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

**Clinical Assessment**
- History and vital signs
- Persistent new cough
- Fever > 37.8°C
- Dyspnea
- Flu like illness

**Chest examination**
- Often normal
- ‘Silent hypoxia’ is common

**Greens**
- NEWS2 < 3
  - and
  - Sats ≥ 95%

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

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

**Admit for close monitoring**
- Rx with O₂
- Rx intercurrent bacterial infection
- May need CPAP/IPPV

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

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

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

For **ALL admitted** patients lx should include
- CXR
- FBC (n.b. leukocytopenia)
- CRP
- Troponin
Emergency department COVID-19 care record

Emergency Department COVID-19 Care Record

Patient name: Date: Time of arrival: 
Date of Birth: Named nurse: 
NHS Number: Clinician: 

Nursing assessment

Investigations: (tick when done)
- Blood panel
- Blood cultures
- CXR
- A&G/VBG
- BCG
- Viral swabs
- Pregnancy test
- CT/FOCUS

Requested (initials)
Done (initials)

Focussed history

Respiratory
- Cough
- Breathlessness
- Dyspnoea
- Coughing
- Sore throat
- Difficult chest pain
- Fever

GI
- Diarrhoea
- Vomiting
- Abdominal pain

Cardiac
- Cardiac chest pain
- Chest pain

Neurology
- Headache
- Mental change
- New confusion
- Loss of taste or smell

History (Free text) Onset of symptoms:

Immunosuppression/compromise Y/N Details:

Medications

Allergies and Adverse Drug Reactions: List the medications or substances and the nature of the reaction (with MG/AD reaction) 

Sign (name): Date: 

Examination

Heart sounds:

CXR Findings:

GCS E /4 M /6 V /5 Total /15

Lateralisng neuro signs: Y/N ECG:

Primary Diagnosis

COVID-19 Likely □ Possible □ Unlikely □

Other (please specify):

Secondary diagnoses/problems
1. 
2. 
3. 
4. 
5.
Radiology decision tool for patients with suspected COVID-19

*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

| 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
- Acute impairment
- Last hours of life

**Function**

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.