Emergency Department COVID-19 adult management

**High risk features**
- Underlying respiratory conditions i.e. asthma/COPD.
- Diabetes.
- Age >70yrs.
- CVS disease/HTN/CKD.
- Immunosuppression.
- Pregnancy.

**Triage**
Symptoms consistent with COVID 19.

Transfer to the Red Zone and Assess severity.

**Consider discharge at triage**
If ALL of:
- Observations normal.
- Sats >94 and no new SOB or chest pain.
- No high risk features. COVID information leaflet given on discharge.

**Amber**
If any of:
- NEWS2: 3-4
- SOB or desaturate on 40 step test.
- Sats 93-94% on air.
- High risk features.

Investigations
- CXR/ECG.
- FBC/U+E/LFT/CRP/Ferritin/VBG.

Discharge criteria met and other differentials considered?

**Green**
If ALL of:
- Sats >94% and no desaturation over 40steps test.
- No new SOB.
- No high risk features.
- NEWS2: <3.

**Amber**
Investigations
- CXR/ECG.
- FBC/U+E/LFT/CRP/Ferritin/VBG.

**Red**
If any of:
- Sats ≤92% on air, or ≤85% if COPD.
- Marked SOB.
- NEWS2: ≥5 or evidence of Red flag sepsis.

Investigations
- CXR/ECG.
- FBC/U+E/LFT/CRP/D-dimer/Ferritin/VBG.
- ABG if for escalation

**Home**
- Antibiotics TTO if appropriate.
- COVID information leaflet.
- If at risk of deterioration consider follow up with CMS.

**Medical admission**
- Covid-19 swab.
- COVID proforma completed and escalation plan documented.

**ITU referral appropriate?**
- ITU Inclusion criteria met and NO exclusion criteria.

**Yes**
- ITU review

**No**

**Treatment**
- Check BM on all admitted patients. Blood ketones if diabetic or BM >12mmol/L.
- IV fluids: Give if evidence of hypoperfusion e.g. Raised lactate/hypotension/low UO/Abnormal U+E. Give 250-500ml bolus and review. Patients are at risk of AKI so aim for euvoilaemia.
- Antibiotics for patients requiring admission:
  - Co-amoxiclav 1.2g IV TDS and Azithromycin 500mg OD.
  - Non anaphylactic penicillin allergy: Ceftriaxone 2g IV BD and Azithromycin 500mg OD.
  - Penicillin anaphylaxis: Levofloxacin 500mg IV/PO BD and Azithromycin 500mg OD.
- COVID clerking book completed including resus status/ceiling of care/escalation plans.
- COVID patients are at high risk of VTE. Prescribe prophylactic dose LMWH if no contraindications.
- RECCOVERY Trial: Enroll patients with suspected or confirmed COVID if admitted.
- Consider prescribing palliative medications if patient is severely unwell and not for escalation.
**Comorbidities:** Age and comorbidities are important risk factors but young patients can also get serious disease.

**History:** Common: Fever, dry cough, SOB, myalgia, anosmia. Less common: Pleuritic pain, nausea + vomiting, diarrhea, headache and sore throat. Elderly can present with increased confusion.

**Clinical assessment:** Hypoxaemia is often clinically silent and patients may not appear SOB. Chest examination is often non specific and should not be relied on.

**Clinical course:** Clinical deterioration in 15–25% of cases. SOB typically develops after 5 days and admission after 7 days. Median time to ARDS is 8 days and ITU admission at 10 days.

**Common investigations findings**
- FBC- Lymphopenia is characteristic but not always present.
- AKI can occur.
- ALT/ AST / bilirubin may be elevated.
- Troponin: Myocardial injury can occur in severe disease.
- Elevated D-dimer: Common in COVID-19. Levels >1 are associated with more severe disease.
- Elevated Ferritin, CRP as well as severe lymphopenia are also potential markers of severity.

**CXR findings**
- Early disease: Bilateral ground glass opacities common, though CXR may be normal.
- Late disease: Patches coalesce into more dense bilateral consolidation.

**Discharge Criteria**
**All** of the following:
- Alternative diagnosis considered.
- 02 sats >94% on room air. (≥90% if COPD)
- Absence of persistent tachypnoea/ respiratory distress.
- NEWS2 score <3.
- CXR: Normal or mild changes only.
- Bloods: No major derangements i.e. New organ failure/ CRP >125/ Ferritin >700.
- If in high risk group to be discussed with senior prior to discharge.

**COVID management service (CMS) follow up:** Complete referral form for discharged patients who are at risk of deterioration. Patients will receive daily phone calls from a GP to monitor progress.

**Oral antibiotics on discharge**
Consider if **any** of:
- If elevated WCC/ CRP.
- High risk group.
- New SOB/ reduced 02 sats or evidence of pneumonia on CXR.

**Antibiotic choice:**
Amoxicillin 500mg TDS and Clarithromycin 500mg bd / 5days.
Penicillin allergic: Claithromycin 500mg BD / 5days
(Azithromycin can replace Clarithromycin)