

## ANTI-INFECTIVE MANAGEMENT OF COVID-19 PATIENTS

### ASSESSMENT

Assess the need for antibiotics based on severity of symptoms, likelihood of bacterial chest infection and chest x-ray findings. Do not start antibiotics based on rising CRP and persistent fever alone.

Consider starting antibiotics if:

- New neutrophilia  $> 7.5 \times 10^9/L$
- New fevers when previously afebrile  $> 48$  hours
- Imaging consistent with bacterial infection
- Symptoms of bacterial chest infection

Send CAP screen: blood cultures, sputum for culture, urine samples for Legionella/Pneumococcal Ag; blood for Mycoplasma serology and HIV.

A baseline procalcitonin level should be taken on admission and repeated after 48/72 hours of antibiotic treatment to guide/stop antibiotic treatment.

If patient is negative for SARS CoV-2 on more than one sample and admitted to ITU, discuss respiratory PCR testing with Consultant Microbiologist.

### ANTIBACTERIAL THERAPY

**1<sup>st</sup> Line for patients with COPD/bronchiectasis, aspiration, admitted from nursing/residential home:**

**Tazocin** 4.5g IV TDS and **Clarithromycin\*** 500mg PO BD

Escalation should be discussed with Consultant Microbiologist.

**1<sup>st</sup> Line for other patients:**

- **Amoxicillin** 1g IV TDS and **Clarithromycin\*** 500mg PO BD

- **Patients allergic to penicillin:**

**Teicoplanin** 12mg/kg IV OD and **Clarithromycin\*** 500mg PO BD

Can be escalated to 2nd line treatment if no anaphylactic reaction to penicillin

**2<sup>nd</sup> Line:**

**(initial escalation if no clinical response after 48 hours and suspicion of secondary bacterial infection)**

- **Ceftriaxone** 2g IV OD and **Clarithromycin\*** 500mg PO BD

**3rd Line**

- Discuss with Microbiology if further escalation is indicated or the above regimens are contra-indicated

For HAP/oral switch please follow current Trust Antibiotic guidelines – discuss with Microbiologist oncall if any concern.

**\*Doxycycline 200mg STAT, 100mg OD thereafter can be prescribed in place of clarithromycin if concerns about drug interactions**

## REVIEW

- Review clinical response daily
- Total duration should not exceed 5 days unless on microbiology advice
- Do not escalate based on a rising CRP alone, review WBC and clinical picture
- Switch to ORAL route when appropriate
- Review therapy once results of SARS CoV-2 swab and CAP screen available

1 - STOP

2 - IV to oral switch

3 - Change to narrow spectrum agent

4 - Continue & review in 24 hours

5 - OPAT (Outpatient Antibiotic Treatment)

**Consider stopping antibiotics if no clinical evidence of bacterial infection and patient not at high risk of complications**

## EXPERIMENTAL PHARMACOLOGICAL TREATMENT FOR COVID -19 – CLINICAL TRIALS

- There are no specific treatments approved to treat people with COVID-19. Investigative agents should only be used in the context of a clinical trial.
- We are currently recruiting patients to the Recovery Trial. For further information see <https://www.recoverytrial.net/for-site-staff>
- The trial has 6 arms at present: standard care, lopinavir/ritonavir (Kaletra), hydroxychloroquine, low dose corticosteroids (dexamethasone or prednisolone/hydrocortisone in pregnancy), azithromycin and tocilizumab. See CRS powerplan.
- Remdesivir is available on compassionate base from Gilead for severe COVID-19 pneumonia in pregnant women and children.

For drug interactions with experimental covid treatments please refer to:

<https://www.covid19-druginteractions.org/>

Common interactions with antimicrobials:

### Clarithromycin and Kaletra:

Ritonavir significantly increases clarithromycin concentrations which can cause a prolonged QT-interval in patients with renal impairment. Clarithromycin can be co-administered at standard doses provided CrCl > 60ml/min.

CrCl 30-60ml/min: Reduce clarithromycin dose to 250mg BD

CrCl <30ml/min: Reduce clarithromycin dose to 250mg OD

### Clarithromycin and Hydroxychloroquine

Both drugs can prolong the QT interval. Use cardiac monitoring if available and avoid this combination if possible in patients with existing QT-prolongation or taking other drugs which also prolong the QT interval