Tocilizumab/Sarilumab Treatment for Adult Hospitalised Patients with Covid-19: A Checklist for Medical Staff

Eligibility Criteria:

1. Is COVID-19 infection confirmed? Yes No

   If not, does a multidisciplinary team have a high level of confidence that Covid-19 is the most likely diagnosis

2. The patient has yet to receive treatment with an IL-6 inhibitor on this admission? Yes No

3. The patient has also been prescribed dexamethasone (unless contra-indicated) and Yes No

   a. Has a CRP>75mg/L and oxygen sats <92% on room air or requires supplemental oxygen (prescribe tocilizumab*)
   OR
   b. Is within 24 hours** of commencing respiratory support, i.e. HFNO, CPAP or intensive ventilation (prescribe tocilizumab*)

All criteria must be satisfied to proceed with treatment.

Exclusion criteria

Tocilizumab/sarilumab should not be administered in the following circumstances:

- Known hypersensitivity to tocilizumab/sarilumab
- Co-existing infection that might be worsened by tocilizumab/sarilumab***
- ALT or AST more than 5 times the upper limit of normal (caution is recommended if hepatic enzymes are more than 1.5 times the upper limit of normal)

Other Considerations (see SPC and seek specialist help where balance of risks and benefits is unclear):

- Platelet count of less than 150 x 10^9/L
- Neutrophil count of less than 2 x 10^9/L
- Pregnancy
- Active tuberculosis
- A history of diverticulitis
- A pre-existing condition or treatment (e.g. biologic) resulting in on-going immunosuppression

If a decision is made to give Tocilizumab/Sarilumab

- Discuss the information on the patient information sheet with the patient if possible and leave them a copy
- Sarilumab is unlicensed for this indication (off-label) and responsibility for use lies with the prescriber
- Request serology for Hepatitis B and C, as well as HIV and VZV
- Request a Quantiferon test

*Sarilumab may be used where tocilizumab is not available
**up to 48hours in exceptional circumstances (treat as early as possible)
***procalcitonin may be useful to differentiate between bacterial pneumonia and COVID-19 pneumonitis

Tocilizumab dosing

Prescribe **a single dose** of Tocilizumab at a dose of 8mg/kg actual body weight up to a maximum dose of 800mg. Infuse intravenously in 100ml sodium chloride 0.9% - after removing an equivalent volume of diluent - over 1 hour (10mL per hour for 15 minutes then 130mL per hour for the remaining 45 minutes).

Weight	Dose
<41kg	8mg/kg, rounded to 20mg
≥ 41kg and ≤ 45kg	360mg
≥ 46kg and ≤ 55kg	400mg
≥ 56kg and ≤ 65kg	480mg
≥ 66kg and ≤ 80kg	600mg
≥ 81kg and ≤ 90kg	680mg
≥91kg	800mg

Sarilumab dosing

Prescribe and infuse 400mg as **a single dose** in 100ml sodium chloride 0.9% over 1 hour (10mL per hour for 15 minutes then 130mL per hour for the remaining 45 minutes) via a low protein-binding 0.2micron filter (e.g. CODAN iv star 10 filter: order ref 763106). Invert at least 10 times to ensure thorough mixing.

Adverse effects: Hypersensitivity reactions including anaphylaxis, flushing, fever, chills, rash, pruritus, urticaria, headache, hypertension

Monitoring: Pulse, blood pressure, temperature & respiration rate for any signs of hypersensitivity reaction. Baseline observations should be measured after 15 minutes, then every 30 minutes until 1 hour post infusion.

Considerations afterwards

- The CRP remains low for a while after Tocilizumab/Sarilumab therapy, so if there is a suspicion of infection, don't be reassured by a normal CRP
- On discharge from hospital, give the patient another copy of the patient information sheet. This gives them advice including to avoid live vaccines and contact with chicken pox
- The GP should be made aware of Tocilizumab/Sarilumab treatment on discharge – **include details in the discharge letter**

References

- Blueteq forms
- Interim Clinical Commissioning Policies: Tocilizumab and Sarilumab for COVID-19 pneumonia
- COVID-19 Therapeutic Alert: IL-6 Inhibitors for COVID-19 pneumonia
- Summary of Product Characteristics (SPC): Tocilizumab and Sarilumab
- Medusa (search IV drugs for Tocilizumab/Sarilumab)
- FICS/ICM Critical Care COVID Guidance
- MHRA Advice: Tocilizumab: rare risk of serious liver injury including cases requiring transplantation (July 2019)

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