

**PROTOCOL CODE: SCCRS**

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Weight \_\_\_\_\_

**DOCTOR'S ORDERS**

**REMINDER: Please ensure drug allergies are documented on the Allergy & Alert Form**

**DATE:** \_\_\_\_\_ **Treatment Date:** \_\_\_\_\_

Clinical symptoms indicative of cytokine release syndrome (CRS) are **fever, rigors, hypotension and hypoxemia**. Signs and symptoms may also include but are not limited to: tachycardia, tachypnea, dyspnea, nausea, vomiting, diarrhea, mental status changes, transaminitis, fatigue, malaise, myalgias, headache, rash

**Patients must be closely monitored for early signs and symptoms indicative of CRS.**

Page the admitting or covering physician at the first signs of CRS – temperature greater than or equal to 38°C, hypotension (SBP less than 100mmHg or greater than 20mmHg drop from baseline), hypoxia (O2 sat less than 92%) or any significant change in their clinical status.

Agent administered: \_\_\_\_\_ Time of administration: \_\_\_\_\_

Admitting Physician: Dr. \_\_\_\_\_ Contact Number: \_\_\_\_\_

Daytime Covering Physician: Dr. \_\_\_\_\_ Contact Number: \_\_\_\_\_

Overnight Covering Physician: Dr. \_\_\_\_\_ Contact Number: \_\_\_\_\_

**CRS Management:**

If systolic blood pressure less than 100 mmHg or if greater than 20 mmHg drop from baseline, start fluid order below and notify physician:

**NaCl 0.9%** \_\_\_\_\_ mL IV fluid bolus over \_\_\_\_\_ minutes

**Any grade**

Oxygen to maintain oxygen saturation above 92%

**acetaminophen 650 mg to 975 mg** PO q4h prn for fever

**diphenhydrAMINE 50 mg** IV q4h prn for rash, pruritis

**metoclopramide 10 mg** PO/ IV q4h prn for nausea

**ondansetron 8 mg** PO/ IV q8h prn for nausea

**NaCl 0.9%** \_\_\_\_\_ mL IV fluid bolus over \_\_\_\_\_ minutes or  **NaCl 0.9%** IV at \_\_\_\_\_ mL/h

**Grade 1:** Fever without hypotension or hypoxia

**Hold infusion until CRS symptoms resolve.**

Once resolved, may restart infusion as per specific drug protocol.

Page the admitting physician or covering physician if not already done

Monitor for CRS symptoms including vital signs and pulse oximetry at least Q1H for 12 hours or until resolution of symptoms, whichever is earlier

**DOCTOR'S SIGNATURE:**

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**UC:**

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**Grade 2:** Fever with hypotension responsive to fluids and/or hypoxia requiring low-flow oxygen

**Immediately discontinue current treatment and do not restart.**

Page the admitting physician or covering physician if not already done.

Vital signs and pulse oximetry at least Q1H, and more frequently if necessary, until resolution of CRS symptoms.

If required:

**tocilizumab 8 mg/kg** x \_\_\_\_\_ kg = \_\_\_\_\_ mg (**maximum 800 mg**) IV in 100 mL NS over 1 hour.

May repeat Q8H based on clinical assessment (maximum 3 doses in 24 hours, 4 doses total)

**dexamethasone 10 mg** IV Q6H

OR  **methylPREDNISolone 125 mg** IV once

**salbutamol 5 mg** nebulizer for inhalation by nebulizer every 20 minutes PRN for shortness of breath, hypoxia

Other: \_\_\_\_\_

Draw the following labs

CBC & Diff, electrolyte panel, creatinine, ALT, alkaline phosphatase, LDH, bilirubin, lactate, CRP, **ferritin**, INR, PTT, fibrinogen. Other labs: \_\_\_\_\_

Repeat above labs Q4H and prior to discharge (if any abnormalities)

Chest x-ray

Urinalysis with culture

Blood cultures

**Grade 3 and Grade 4:** Fever with hypotension not responding to fluids and/or hypoxia requiring high-flow oxygen.

**Immediately stop treatment and do not restart.**

Vital signs q15 minutes or more frequently as ordered until resolution to Grade 2 or less, then q1h until complete resolution of CRS.

Page the admitting physician or covering physician if not already done.

Arrange urgent transfer to higher level of care.

**tocilizumab 8 mg/kg** x \_\_\_\_\_ kg = \_\_\_\_\_ mg (**maximum 800 mg**) IV in 100 mL NS over 1 hour.

May repeat Q8H based on clinical assessment (maximum 3 doses in 24 hours, 4 doses total)

Select one steroid option:

**dexamethasone 10 mg** IV Q6H

OR  **dexamethasone 20 mg** IV Q6H OR  **methylPREDNISolone 1 g** IV daily

If required:

**epinephrine 1 mg/mL (1:1000) 0.5 mg** IM every 5 minutes PRN (maximum 3 doses) for severe hypotension

**salbutamol 5 mg** nebulizer for inhalation by nebulizer every 20 minutes PRN for shortness of breath, hypoxia

Other: \_\_\_\_\_

Draw the following labs

CBC & Diff, electrolyte panel, creatinine, ALT, alkaline phosphatase, LDH, bilirubin, lactate, CRP, **ferritin**, INR, PTT, fibrinogen. Other labs: \_\_\_\_\_

Repeat above labs Q4H and prior to discharge (if any abnormalities)

Chest x-ray

Urinalysis with culture

Blood cultures

**DOCTOR'S SIGNATURE:**

**SIGNATURE:**

**UC:**