

Tocilizumab for COVID-19

information for pharmacists

01 Mechanism

Tocilizumab

humanized monoclonal antibody that competitively inhibits IL-6



Effects of IL-6 Excess

- CRP
 - fibrinogen
 - coagulopathy
 - vascular permeability
 - antibody production
- Albumin
 - CYP 450s

02 Role in Therapy

Adjunctive Therapy

only evaluated in addition to other therapies for severe COVID-19

patients generally have evidence of cytokine storm

Cytokine Storm

elevations in the following biomarkers may correlate with cytokine storm

- IL-6
- CRP
- ferritin
- D-dimer

03 Dosing*

Weight-based

4-8 mg/kg
(up to 800 mg total)



Fixed-dose

400 mg once, potential second dose at 8 - 12 hr
(up to 800 mg total)



Vial Sizes

400 mg / 20 mL
200 mg / 10 mL
80 mg / 4 mL



limited data on use of subcutaneous dose given IV

*no preferred regimen established

04 Adverse Reactions

serious infection

infusion reactions
(consider pre-treatment)

liver injury & hyperlipidemia

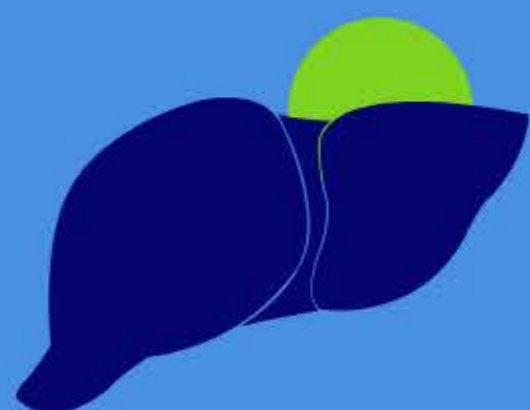
GI perforation

05



Tuberculosis

screen using T-SPOT or Quant Gold



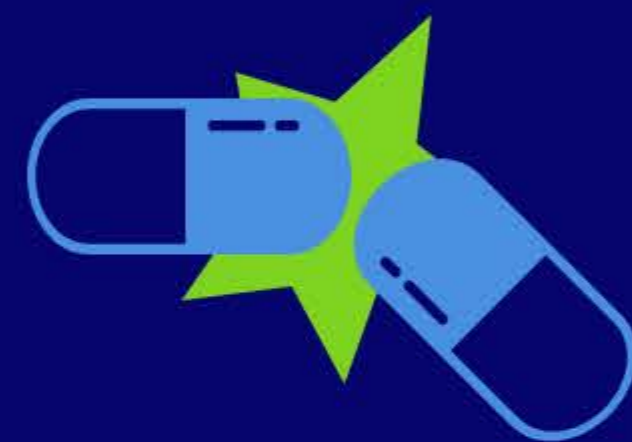
Hepatitis B

do **NOT** need routine prophylaxis

consult infectious diseases if HBsAg + **AND** additional immunosuppressive agents

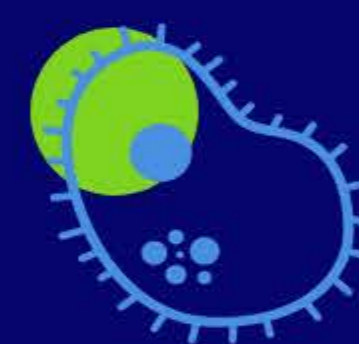
Do NOT delay medication for screening results

Monitoring



Drug-drug interactions

IL-6 blockade may enhance CYP 450 enzymes (including 3A4) function



Secondary Infection

monitor for fungal or bacterial secondary or co-infection



Routine Labs

- daily complete blood count (anemia)
- liver function test (toxicity)
- consider proinflammatory markers (CRP, IL-6)

