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RISE
Reaching Impact, Saturation,
and Epidemic Control

Centre of Excellence for Clinical Management of COVID 19 All India Institute of Medical Sciences, Bhopal

DRUGS USED IN COVID



Disclaimer

- This presentation is not meant to discuss all the drugs that are found to be useful in COVID but to provide a brief overview of drugs that are available locally and found useful.
- The presentation deals with principles of use of the drugs in a rational manner in view of scarcity of their availability as of today.

Learning Objectives

- Identification of important disease specific drugs
- Learning the indications and contraindications to use **Remdesivir**
- Learning the indications and contraindications to use **Tocilizumab**
- Learning the indications and contraindications to use **heparin** in COVID patients
- Learning how much **steroid** to use and which one to choose in COVID patients.

Drugs for Discussion

Restricted Emergency Use (REU)

- Remdesvir
- Tocilizumab

Other Drugs

- Heparin
 - Unfractionated
 - Enoxaparin
- Steroid

Indications

Ramdesivir

- < 7 days of illness
- O₂ requirement > 5 Lt to maintain SPO₂ > 94%
- Bilateral infiltrates
- CRP > 100 mg /dl
- eGFR > 60

Tocilizumab

- < 7 days of illness
- O₂ requirement > 5 Lt to maintain SPO₂ > 94%
- Bilateral infiltrates
- CRP > 100 mg /dl
- TLC < 12000

Remdesivir

- **MOA:** Adenosine nucleotide pro drug → nucleoside triphosphate → integrates with viral RNA → Viral inhibition
- **Contraindication:** eGFR < 30
- **Special precaution:** Pregnancy- Lactation, Elderly > 65, Active hepatitis
- **Side effect:** Nausea, anaphylaxis, rise in fever, elevated AST and ALT liver enzymes

How to use Remdesivir

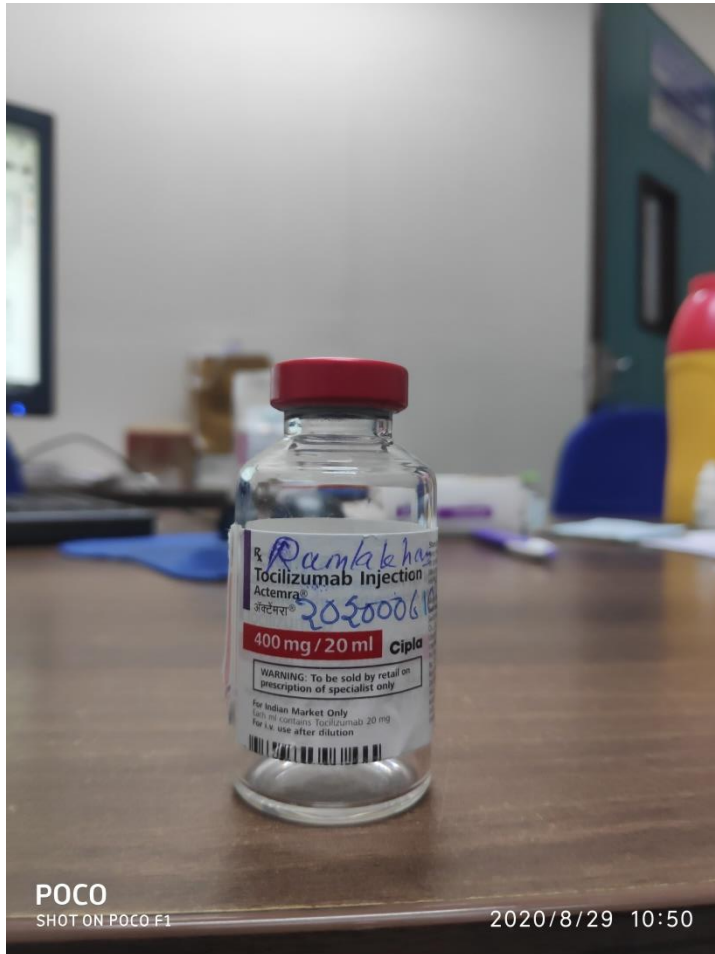


- Lyophilised powder
- 19 ml distilled water
- 100 ml-250 ml of NS
- Over 1-2 hr
- 200mg Day-1 →
100 mg for 5days
- Can give in Peripheral Line
- Can store for 24 hr in outer freeze
- Look for LFT > 3time = stop
- Cost: Rs.4,000/-

Tocilizumab

- **MOA:** Recombinant humanised anti-human IL-6 R monoclonal antibody of Ig-G1 subclass
- **Contraindication:** Active Infection
- **Special precaution:** Pregnancy- Lactation, pediatric, elderly > 65, Active hepatitis
- **Side effect:** Activates Herpes-TB, rise in AST-ALT, leukopenia-neutropenia, lipid abnormality, GI (diverticulitis, gastric ulcer), nephrolithiasis, hypothyroidism

How to use Tocilizumab



- Vial=20ml / 400mg
- 20mg / ml
- $0.4 \text{ ml / kg} = 8 \text{ mg / kg}$
- Infuse in 100 ml NS > 1 hr
- Can be used in peripheral line
- Can store after for 24 hr in 30 C
- Explore occult infections

Heparin

UF Heparin

- For an average adult
- Moderate cases (Saturation 90-94)
 - 5,000 units SC BD
- Severe case: (Saturation <90)
 - 12,500 units SC BD
- Can be used in AKI
- Needs monitoring

Enoxaparin

- For an average adult
- Moderate cases (Saturation 90-94)
 - 40-60 units SC OD
- Severe case: (Saturation <90)
 - 40-60 units SC BD
- Should not be used in AKI
- Needs less or no monitoring

Steroid

- Moderate: SPO₂=90-94%
- Low dose steroid
 - Dexa 6-8 mg OD for 5-10 dy
 - MP 40-60 mg
 - ~~Hydrocort~~ 150-200 mg
- Severe: < 90%
 - Dexa 16 mg BD for 3-5 dy
 - MP 125 – 500 mg OD
 - ~~Hydrocort~~ 400 mg BD

Dexa 1 mg = 5.3 mg MP = 25 mg Hydrocort



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Thank You

