COVID - Adults

Pathophysio.

The Pathway
1. SARS - CoV-2 infect host cells in airway
2. Bronchial epithelial, alveolar pneumocytes, capillary endothelial are infected leading to inflammatory
3. Leads to alveolar interstitial thickening, ↑ vascular & edema

Prevention

Vaccination
→ check CPS for primary series & boosters

Note: ∅ get immunization while positive for COVID to ↓ transmission & risk of confusing ADRs ⟷ disease
→ wait 3-6m after COVID to get booster

Chemoprophylaxis (if ∅ get vaccine)
↳ tixegevimab/cilgavimab used

Diagnosis

⭐ consider all factors
1. Positive test
2. S/Sx
   - ⭐ Depends on varient
   - **Delta** (lower RTI)
     · SOB
   - **Omicron** (upper RTI)
     · nasal congestion
     · sore throat
     · headache
     · fever
     · cough
3. Exposure/contacts

Classification

Mild
- Virus? omicron (b/c milder S/Sx)
- S/Sx?
  · runny/stuffy nose
  · sneeze
  · headache
  · sore throat
  · mild cough

Moderate
- Virus? delta
- S/Sx?
  · fever
  · muscle aches } systemic
  SOB
  · productive cough

Severe
- Virus? delta
- S/Sx?
  · O_2 < 94%
  · may need ventilation

Outpatient-Rx

Low Risk Hospitalization (≤ 3 points)
Who?
- O_2 > 93%
- stable vitals
- ∅ risk of hospitalization
- ∅ red flags (SOB)

Treatment
  Supportive Measures
  · hydration
  · antipyretic (fever)
  · dextromethorphan (cough)
  · analgesic (headache)

High Risk Hospitalization
  3-4% risk (4 points) → consider tx
  > 5% risk (5+ points) → recommend tx

Treatment
  1st Line
  · Paxlovid (needs to be w/in 5 days of Sx onset)
  Others
  · Remdesivir
  · Inhaled budesonide
  · Sotrovimab (∅ commonly used)
  Not recommended
  · Colchicine
  · Fluvoxamine

Special Populations

Pregnancy & Breastfeeding
  Prevention
  - vaccine safe
  Treatment
  - acetaminophen

Hospitalized-Rx

↳ if patient admitted

1) **Dexamethasone** (required)
   ↳ 6mg PO/IV daily ×10 days (or until D/C)
   ↳ reduces mortality

2) **Biologics**
   If critically ill (on vent)
   1) Tocilizumab 400 IV ×1
      ↓ if worsen
   2) Baricitinib
   If severely ill (∅ on vent)
   1) Baricitinib 4mg ×14d
      ↳ need to renal adjust
      (if CI → can give tocilizumab)

   Baricitinib Contraindications
   · Neutrophils < 1.0×10^9
   · Lymphocytes < 0.2×10^9 } any
   · GFR < 15
   · ALT or AST 5X ULN

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