BRIGHAM HEALTH
BRIGHAM AND WOMEN'S HOSPITAL

CARING FOR COVID19: QUICK GUIDE FOR THE INTENSITIVIST

Version 4.10.2020 *For complete guidelines check ICU COVID dropbox: use QR code →

ISOLATION CONSIDERATIONS

- Strict isolation = Contact (gown+ gloves) + Droplet (surgical mask or N95 if in ICU or if w/ aerosolizing procedure)
- AVOID aerosolizing procedures when possible (Non-invasive, high flow, nebs, bronchoscopy)

TRANSFER TO THE ICU

- address goals of care BEFORE admission to ICU
- Patient to travel in ICU bed (if possible) wearing surgical mask + clean gown and sheet
- Travel w 2 ICU RNs (full PPE) + 2 security (N95)

BEDSIDE PROCEDURES

- See "ICU strict isolation guidelines" for how to do sterile procedures in strict isolation
- A-line: on admission unless contraindicated
- Central line: Left IJ preferred (save R for RRT)
- Bronch: minimize; for pulmonary toilet try albuterol neb then dornase or hypertonic saline

CONSULTS

- **ID**- for ALL patients, for therapies/trials + abx
- **Cardiology**- for new Heart failure, ACS, VT/VF, cardiogenic shock
- **Oncology**- call primary oncologist at arrival
- **Anesthesiology**- CALL EARLY for intubation
- **Palliative Care**- co-round in ICU daily, page 42200 for any urgent needs (symptoms/GOC)

IMAGING

- CT chest NOT necessary for diagnosis (if done, looks like viral PNA: bilateral, multifocal GGOs +/- consolidation +/- septal thickening)
- daily CXR NOT necessary- only if changes plan

LABS in the ICU

- **admission** →CBC w diff, CMP, CRP, procal, CPK, trop, d-dimer, PTT, INR, NTproBNP, ferritin, soluble IL2 receptor
- **daily** →CBC w diff, BMP, Mag, troponin, CPK PTT, INR, fibrinogen
- **every other day** →LFTs, LDH, CRP, d-dimer, ferritin (if on propofol: triglyceride)
- **2x per week:** soluble IL2 receptor
- **if clinical worsening** → LFT, CPK, troponin, CRP, procal, LDH, ferritin, d-dimer, fibrinogen, PTT, INR

RESPIRATORY FAILURE

- **goal SpO2 92-96& PaO2>75**
- See "Respiratory Failure COVID Quick Guide" or full ICU COVID Guidelines for details
- Expect rapidly evolving hypoxemia + ARDS
- Avoid CPAP or BiPAP for ARDS, can consider in reversible cases (e.g. flash pulmonary edema)
- if rapid deterioration **page 39265 covid airway team** for intubation

****Lung Protective Ventilation: Vt 6cc/kg ideal body weight, initial PEEP 5 for BMI<35 (or initial PEEP 10 if BMI ≥35)**

- Titrate PEEP: ARDSET LOW PEEP table if BMI<35 or ARDSNET HIGH PEEP table if BMI≥35
- **for refractory hypoxemia** try in this order: 1)PEEP titration 2)increased sedation 3)continuous paralysis 4)PRONING (for P:F<150 of FiO2 >0.75) 5)inhaled epoprostenol 6)inhaled NO 7)ECMO, if candidate
- FYI: only absolute contraindication to proning is spinal cord injury or open chest
- Sedation for ARDS: fentanyl / hydromorphone + propofol +/- midazolam (adjunct)

FLUIDS

- Conservative fluids, "dry lungs = happy lungs"
- Assess fluid responsiveness, +/- bedside ultrasound, only small boluses (250-500cc)
- Target CVP 4-8mmHg and EVEN fluid balance

SHOCK

- Distributive (DS) vs. Cardiogenic Shock (CS)
- DS: work-up per BWH sepsis guidelines
- CS suggested by high NT-proBNP, CVO2 <60% +/- bedside ultrasound w decreased LV function
- CS management:
  - Norepinephrine upfront for MAP 65-75
  - Diuretics if CVP>14 for goal CVP 6-14
  - Dobutamine (inotropy) if MAP>65 for goal CVO2 >60 (start at 2mcg/kg/min, up by 1-2 q30-60 min, to max dose 10)
  - Lactate and CVO2 q4-6hrs; LFTs daily
  - Mechanical support if CVO2 <60 and lactate >4 @ dobutamine 5mcg/kg/min

THERAPEUTICS

- Do NOT give steroids (unless for other indication, then use lowest dose possible)
- Discuss therapy options with ID; see ID guidelines for up to date recommendations, criteria for trials (Tocilizumab, Remdesivir, etc.)

PROGNOSIS

- evolving data, worse outcomes if >65 yrs
- lab markers of severe disease: lymphopenia, increased troponin, LDH, d-dimer, CRP
- calculate SOFA score to assess organ dysfunction (epic smartphrase: ".sofascore")