Version 2.0 04/05/2020

MASSACHUSETTS GENERAL HOSPITAL

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MGH TREATMENT GUIDE FOR CRITICALLY ILL PATIENTS WITH COVID-19

PRESENTATION

NOTABLE SX

- ~65-80% Cough
- ~45% Febrile initially
- ~15% URI Sx
- ~10% GI Sx
- Anosmia
- Acute worsening after early mild sx

INCREASED RISK FOR SEVERE DZ

- Age >55
- Comorbid diseases:
  - Cardiac, pulm, renal
  - Diabetes, HTN
  - Immunocompromise

LABS INDICATING SEVERE DZ

- Elevated D-dimer
- LDH >245
- Abs lymphocyte count <0.8

DIAGNOSTICS

DAILY LABS

- CBC with diff (trend lymphocyte ct)
- CMP

MONITOR FOR WORSENING DISEASE OR DRUG TOXICITY PRN

- D-dimer
- Ferritin
- Triglycerides
- CK
- EKG
- LFTs

ONE TIME TEST FOR ALL PTS

- Influenza A/B, RSV
- Additional resp virus per ID guide
- Tracheal aspirate if intubated
- SARS-CoV2 (if not already sent)
- Additional tests for trial enrollment as needed

RESPIRATORY FAILURE

CONSIDER EARLY INTUBATION IN ICU

AVOID USING HFNC or NIPPV

WARNING SIGNS: INC FiO2, DEC SaO2, CXR WORSE

LUNG PROTECTIVE VENTILATION

- Vt 4-6 ml/kg predicted body weight
- Plateau pressure <30
- Driving pressure (Pplat-PEEP) <15
- Target SaO2 90-96%, PaO2>60
- Starting PEEP 8-10 cmH20

CONSERVATIVE FLUID STRATEGY

- Post resuscitation: diuresis as tolerated by hemodynamics/Creat, NO maintenance fluids

PEEP TITRATION

- ARDSnet low PEEP table
- Best PEEP considered w/ ICU attending input

PRONE

- Early if cont. hypoxemia (P:F<150) or elevated driving/plateau pressure
- Supine ~qAM, longer proning duration allowed

ADDITIONAL THERAPIES

- Paralytics for vent dysynchrony, not routine
- Inhaled NO (no epoprostenol)

IF WORSENING

ECMO CONSULT
if continued hypoxemia or elevated airway pressures

IF STABLE OR IMPROVING

PATIENCE
Anticipate possible prolonged intubation

PAGER NUMBERS

ICU CONSULT:26955 **ECMO:**29151 **BIOTHREATS:**26876

HEMODYNAMICS

- Norepinephrine first choice pressor
- IF WORSENING:
  - ? myocarditis/cardiogenic shock
  - Obtain POCUS, EKG, trop, lactate, CVO2 (formal TTE if high concern)

USUAL CARE

- Empiric abx per usual approach
- Sedation PRN vent sychrony
- Daily SAT/SBT when appropriate
- ABCDEF Bundle

CHANGE TO USUAL CARE

- **NO** ROUTINE DAILY CXR
- **MINIMIZE** staff contact in room
- **HIGH THRESHOLD** for bronchoscopy
- **HIGH THRESHOLD** to travel
- **BUNDLE** bedside procedures
- **AVOID** nebs, prefer MDIs
- Appropriate guideline-based isolation for aerosol generating procedures including intubation/extubation

THERAPEUTICS

ALL ICU ADMISSIONS

- Clinical trial enrollment if eligible
- Examples of investigational tx:
  - Remdesivir
  - Hydroxychloroquine
  - Tocilizumab
- **NO ROUTINE STEROIDS** for resp failure, consider in s/o additional indication including potentially septic shock

A living document by Divison of Pulmonary and Critical Care in collaboration with the Dept. of Anesthesia,Critical Care, and Pain Medicine, Division of Cardiology, and Respiratory Care. May be updated or modified as situation evolves.
Version created 4/01/20