Swedish Critical Care: Information Sharing SCCM Chapter Oregon

Mar 17, 2020

Current Status

- System totals- 113 PUI, 34 CoVID +
- ICU- 88 patients, 51vented (increased by 31 overnight)
- 27 new admits in past 24hrs (ER + floor escalation of care)
- PPE preservation goals for coming weeks
- All elective surgical cases have been halted at all campuses starting last week

Washington Stats 3/17/2020

- 908 CoVID—19 +
- 48 deaths
- 742 vents in the Region (112 at Swedish) + additional rentals have been requested
- 500 Physical ICU beds in the region
    - This excludes incorporating alternate inpatient sites for critical care patients

Swedish ICU Structure

- 4 Campuses w ICU bed, 1 campus with no ICU
    - First Hill MICU and SICU- 32 beds
        - additional 22 more being absorbed in IMCU
    - Cherry Hill CVICU and NCCU- 42 beds
    - Edmonds Gen ICU- 13 beds with 6 more being converted
    - Issaquah Gen ICU- 12 beds with 6 more being converted
    - Total Physical Capacity- 127 beds
- PACU will be converted to ICU

Swedish ICU Team

- 51 providers
    - 43 MD's- Mixed practice background: Medicine, Pulm, Anesthsia, ER, Surgery
    - 8 Advanced Practice Clinicians (APC's) dedicated to ICU
        - Procedure skills- intubated, lines, vent management, resuscitation

Respiratory Care Guidelines

- Low flow NC best
- Increase to HFNC 30L + 50% FiO2 in non-ICU settings
- HFNC in ICU up to 50L to 100% FiO2
- BiPAP/CPAP of limited use in ICU setting, not used elsewhere
    - Risk of aerosol
- Early intubation if failing less aggressive measures
    - Rapid Sequence Intubation, avoid BVM unless rescue needed, video/fiberoptic laryngoscope use preferred for first attempt success
- LPV for COVID patients
- Avoid aerosolizing procedures: Intubation, Bronchoscopy, no Nebs, no Epoprostanol
- Not performing routine CT scan due to time consuming procedure, transport, terminal clean of equipment

PPE Guidelines

- Following CDC, OSHA
- Non-ICU, no aerosol risk- Droplet + Contact
- High flow NC on Intermediate care- N95, PAPR, contact
- ICU level of any type- Airborne and contact

Ventilation

- LPV as mentioned
- Prone early, P:F < 150
- Paralytics for synchrony, refractory hypoxemia with bolus + fixed drip cisatracurium
- Not even entertaining the idea of multiple people on 1 vent (it's being distributed like wildfire)
- No bronchoscopy
- MDI- 6-10 puffs per RT, (start at 6 to limit overuse, give more for clinical effect)
- Total vents currently (COVID + and PUI) 20

Staffing

- Currently we have 8 daytime shifts + 4 nighttime shifts
    - Doc on at each site
- Escalating needs of patients beyond ICU physical walls. SCCM Model
    - Absorbing additional easily convertable units to ICU
    - Anesthesia, Hospital Medicine, Nephrology, Cardiology, GI now becoming avail as ICU “extending” providers
    - Intensivists be oversight for multiple ICU’s with non-ICU extenders directly managing patients

Additional Surge Staffing

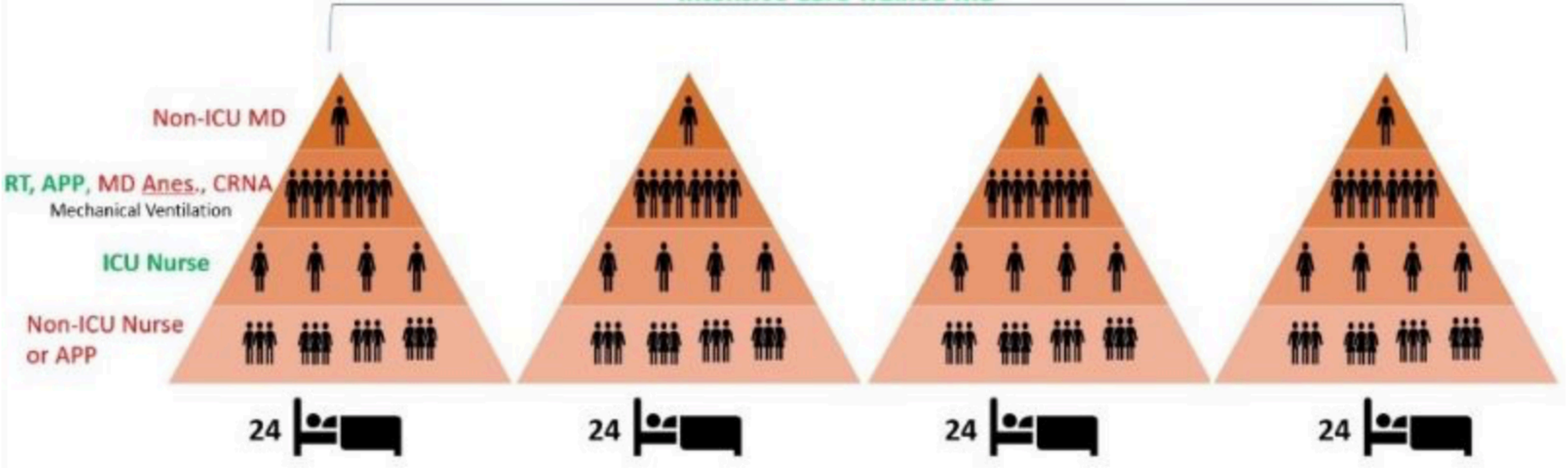
- Anesthesia MD's and NP's
- Pulmonary colleagues
- Emergency credentialing for bringing on additional staff
- Advanced Care Practitioners- We have 8 currently dedicated to ICU
- Hospital medicine

Society of Critical Care Medicine
The Intensive Care Professionals

Tiered Staffing Strategy for Pandemic

Requiring Significant Mechanical Ventilation

Intensive Care Trained MD



CoVID Testing

- 2 Local sites
    - UWMC- Can run yp to 1000 samples/day, 3-4day turn-around time for external testing
    - Evergreen Hospital- Limited sample runs, TAT 4hrs, only 72 samples daily. Testing all employees
- Labcorp is the Swedish System lab
    - Send out, current TAT 3 days but improving
    - Employee testing if symptomatic via drive up appts or from ER for inpatient providers

Treatment

- Compassionate use of Remdesivir from Gilead
    - No use in AKI patients, pressors
- Remdesivir trial
    - Daily calls with trial team and ICU/Hosp Med to discuss patients
- Other treatment options
    - Kaletra- limited number of patients and availability
    - ACEi/ARB- Have held on this due to concern for AKI
    - Hydroxychloroquine- Not in utilization yet
    - Toclizulimab
    - Steroids- Avoiding, questioning use in AECOPD patients

Regional Response Planning

- Northwest HealthCare Response Network
    - Disaster Medicine Advisory Committee and Disaster Clinical Advisory Committee
    - Crisis triage mechanism for allocating and rationing resources across the region
        - GOC/PoIst
        - Assessment for meeting ICU criteria
        - Re-assessment and consideration of re-allocation of resources
        - ICU waiting list
- All region hospitals will be on a call tomorrow, 3/18 to discuss further

Region Hospitals in Close Contact

- Evergreen Hospital (Center of the current outbreak)
- University of Washington and Harborview
- Northwest Hospital
- Seattle VAMC
- Virginia Mason
- Overlake Hospital
- Providence Everett
- Highline hospital

Local and Regional Communication

- Daily calls with our internal ICU director cabinet members
- Daily campus based calls (Total numbers, resources)
- Daily Acute Care Services Division calls (ER, Hosp Med, ICU)
- Daily Hospital Incident Command System based calls (System total numbers, resources, all Swedish Institute and Executive Directors)
- Text string with all area Hospital ICU directors
    - Discuss numbers of PUI and Covid + patients, number in ICU, number vented, treatment options, potential therapies, experience, resource allocation etc
- Northwest Healthcare Response Network
    - Crisis standards of care, Triage planning, scarce resource allocation protocols for all area hospitals