The Mount Sinai Health System and COVID-19 Pandemic

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Mount Sinai Health System: February 1

- Six hospital system in NYC and Nassau County LI
  - 1,100 bed academic medical center
  - Four 500 bed community hospitals
  - Two 200 bed community hospitals
- 3000 Total beds
- 283 ICU beds

The Mount Sinai Hospital

Mount Sinai Beth Israel

Mount Sinai South Nassau

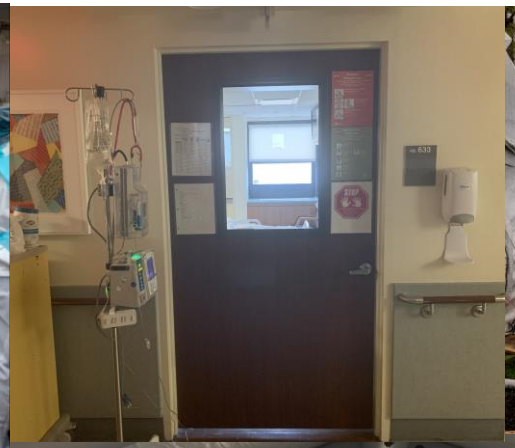
Mount Sinai Queens

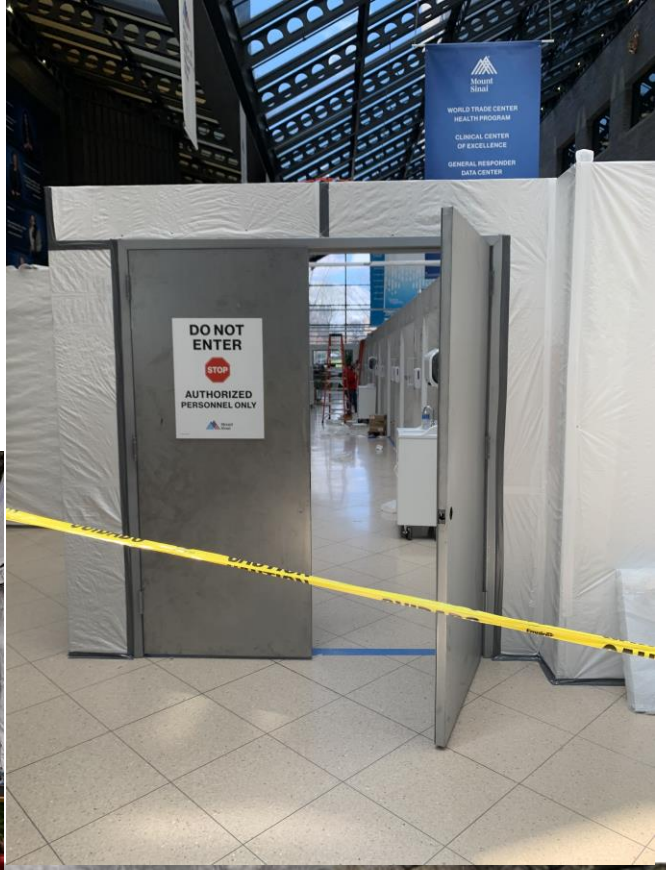
Mount Sinai Morningside

Mount Sinai West

Mount Sinai Health System: April 8

- 2000 patients hospitalized with COVID
- 450 COVID patients in ICUs





Challenges

- Overwhelming numbers of critically ill patients with high symptom burden
- EM physicians facing unprecedented numbers of patients requiring respiratory management
- Critical care operating at 1.6 times “maximal” capacity
- Covid-19 medical services (with deployed physicians) facing multiple difficult treatment decisions daily

Covid-19 Areas of Need for MSHS

- Emergency Department
- Critical Care Units
- COVID-19 Primary Palliative Care
- Home

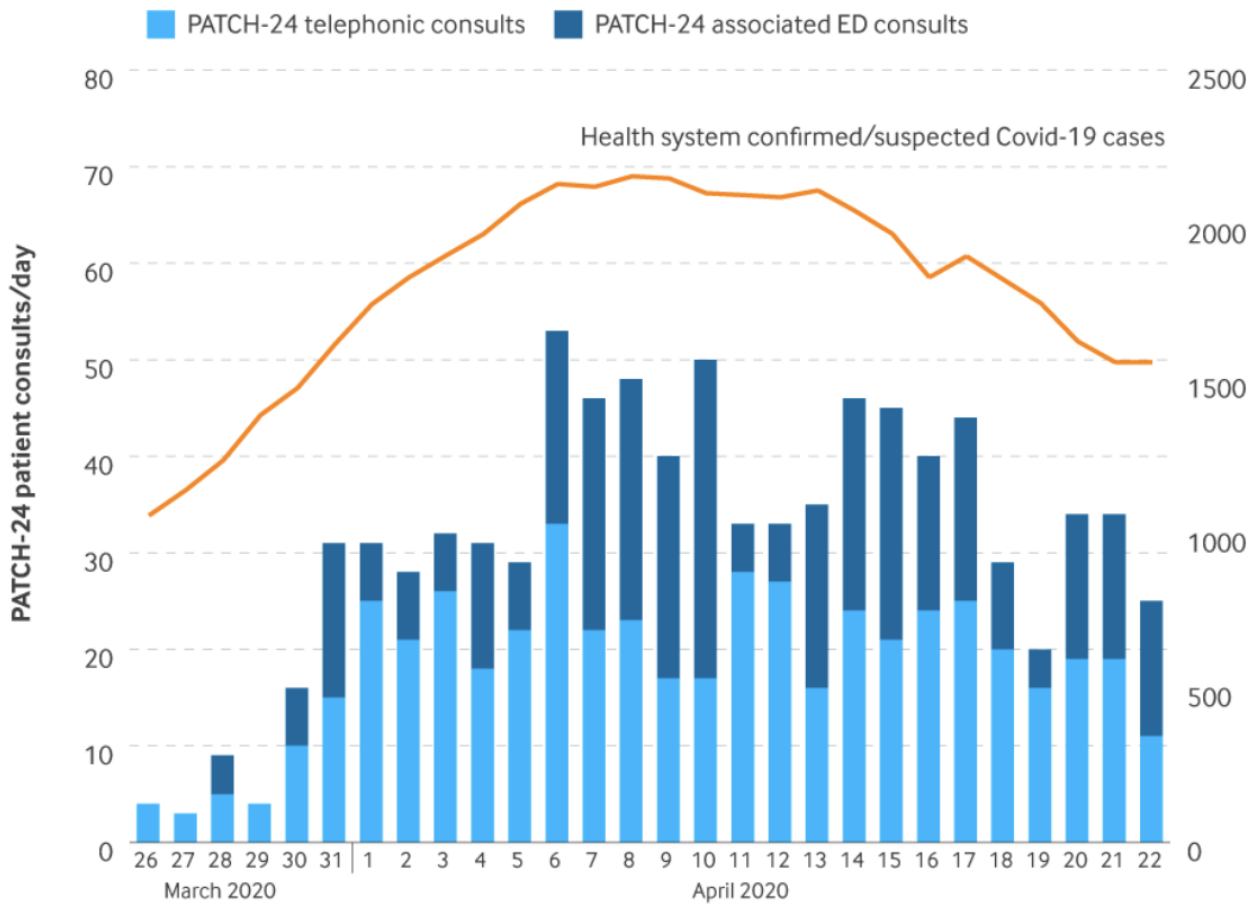
PAlliaTive Care Help line (PATCH-24)

- Designed to extend the reach of palliative care as a critical component of the Mount Sinai Health System Covid-19 disaster response through telephonic palliative care support to front-line providers
- Planning began March 23, first calls received March 26
- Staffed by two board-certified palliative medicine physicians who alternated 12 hour shifts

PATCH-24 Principles and Lessons Learned

1. Be prepared to adapt and innovate

- Call volume grew rapidly and quickly overwhelmed the 2 physicians
- **Adaptations:**
  - backup pool (5 MDs) created to assist when multiple calls came in simultaneously.
  - cohort of medical students trained as "operators" to receive and direct calls to palliative care MDs



2. Palliative care-to-family communication was required in highest-need settings

- MDs lacked time to receive coaching and conduct goals-of-care discussions
- Redeployed clinicians staffing COVID services lacked experience conducting complex goals-of-care discussions
- **Adaptations:**
  - Teleconsultation (physician-to-physician) changed to telemedicine (palliative medicine clinician-to-family) to better align with hospital workflow and clinical needs.
  - Customized electronic health record note templates developed to reflect standardized language, facilitate rapid charting, and promote best practices in peer-to-peer communication

3. Monitoring call line volume guided targeted supports to hot spots

- Daily calls logs were kept and reviewed during shift-change huddles (9 am/pm) allowing identification of sites with highest needs
- **Adaptations:**
  - Deployed a full-time on-site palliative care physician to our smallest community hospital
  - Deployed in-person weekend coverage to system hospital that normally operated with weekend telephonic coverage in response to high weekend call volume.

4. Hot spots that went cold indicated overwhelmed clinicians

- Day 3, no calls received from largest ED despite rising volume.
  - Patient volume had precipitously increased, ED physicians had no time to call PATCH-24.
- **Adaptations:**
  - Palliative care MD imbedded into largest EDs during busiest hours (11 am–7 pm).
    - Palliative MD met with patients and families while ED MDs triaged and stabilized
    - In-person palliative MD could request PATCH-24 MD assistance goals of care conversations with families.
- Additional Benefits:
  - ED PATCH-24 utilization increased even when ED palliative care MD not physically present

5. Staffing expansion presented logistical training challenges

- At surge peaks, # of referred patients overwhelmed staffing
- **Adaptations:**
  - Palliative care clinicians from across the country joined PATCH-24 back-up pool
    - Credentialed emergently as Mount Sinai providers under NYS state of emergency and received 2 hour virtual PATCH-24 training
  - Added a MSHS backup physician who was available to assist volunteer physicians with navigating hospital environments, systems, and cultures

6. PATCH-24 supported clinicians as well as patients and families.

- Clinicians calling for assistance were often fatigued, overwhelmed, and distressed about a dying patient's isolation
- **Adaptations:**
  - Provided empathic listening and encouragement for frontline clinicians.
  - Arranged for video visits with family, chaplaincy calls, child life specialists, art therapy support, and mindfulness coaching for families
  - Helped distressed clinicians see the range of care that could be delivered even when death was imminent.
  - Emphasized wellness resources available for MSHS staff
  - PATCH-24 huddles used to support each other and maintain camaraderie

7. PATCH-24 was ideal for crisis response but not continuity

- As call volume and number of MDs staffing PATCH-24 grew, managing follow-up after calls and integrating with in-patient palliative care teams became challenging.
- **Adaptations:**
  - Emphasized that PATCH-24 did not automatically follow patients, encouraged teams to re-call if assistance was needed and provided families with appropriate contact information
  - Refined workflows to create hand-offs to inpatient palliative care teams for those requiring follow-up

Palliative Care in Critical Care

COVID Appropriate Care Evaluation Team (CACET)

- Designed to address palliative care needs of sickest patients within initial 5 COVID ICUs at MSH while recognizing palliative care and ICU staffing constraints.
- Staffed by experienced Intensivist & IDT Palliative Care Team
- Screening criteria to identify patients with high risk of mortality and/or unmet communication needs established
- Roster of patients meeting screening criteria generated through EHR
- Lead intensivist reviewed and edited roster
- Final roster transmitted to CACET for palliative care consultation

CACET Screening Implementation

Initial Screening Criteria

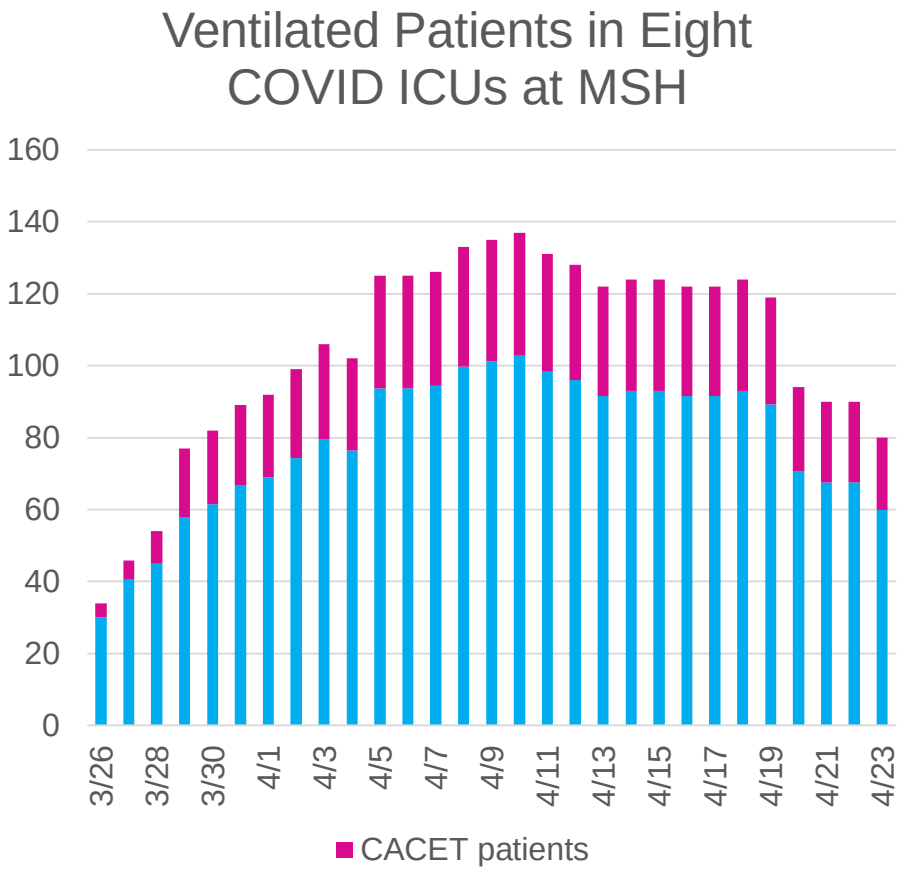
Age >80	pO_2/FiO_2 ratio <100
SOFA score: >5	More than 2 vasopressors

Revised Criteria

Age >65	ICU LOS > 7 days
SOFA score: >7	Patient Condition Worsening

CACET Screening Final Criteria

Image courtesy of vecteezy.com



COVID-19 Primary Palliative Care

- Conducted virtual training for 300 SWs, 45 deployed residents and 2 psychiatrists focused on values/preferences assessment, treatment choices, and identification of surrogate decision makers in setting of Covid

Summary

- The New York situation was relatively unique
- MSHS palliative care program is relatively unique
  - Size, scope of services, fellowship program
- Innovation and flexibility are critical
- Design for outliers, pilot test, re-design and innovate, re-pilot
- Watch for warning signs and adapt accordingly