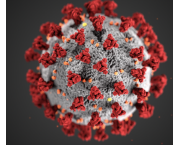


How the COVID-19 Pandemic Impacted Departments and How They Responded- Clinical Impact



Andrew D Rosenberg MD FASA
Professor and Dorothy Reaves Spatz MD
Chair, Dept of Anesthesiology, Perioperative Care and Pain Medicine
NYU School of Medicine



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Disclosures

- None related to this topic



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Objectives

- Discuss organizational issues that need to be addressed when planning a departmental clinical response to the COVID pandemic
- Describe the value that our skill set provides as members of the anesthesia care team in helping to fight this pandemic and how it had a clinical impact
- Organize an approach to equipment and supplies being available in order to effectively deal with the COVID pandemic



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Organizational Issues

- In NYC we experienced 9/11 and Superstorm Sandy
 - While these were unprecedented we went right into a recovery phase
 - COVID pandemic is different- issue - will be here for a while
- We gained department organization knowledge from those experiences
 - Need to be Organized and Nimble in Order to Address the Challenge!



Wikipedia, National Park Service

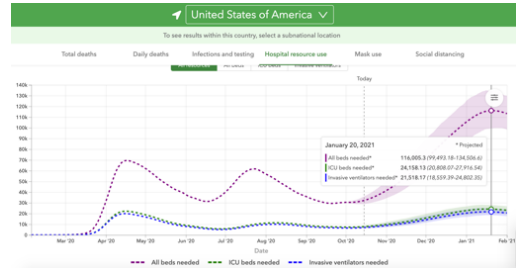


MTA Pic Entrance to Brooklyn Battery Tunnel



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Projections on Needs of ICU Beds and Ventilators from IHME website



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Our Role in an Academic Medical Center

- We are in the front lines
- This is what we are good at – caring for sick patients, intubations, ventilator management, ICU care, lines, prone positioning of patients
- So makes sense to define our role instead of the institution telling us what we should be doing
- Humbled at conviction, determination and dedication of our Physician anesthesiologists, CRNAs, residents & anesthesia tech staff
- Collaborating well with others in our institution is important



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Organizational Issues Necessary to Provide Clinical Care

- Leadership
- Disseminating information to entire Department
- Workforce issues— scheduling and team approach
- Equipment and supplies
 - PPE
 - Anesthesia Machines and supplies
 - ORs



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Organizational Issues

- It is a marathon not a sprint, in Spring 2020 seemed to be a marathon being run at a sprint pace-
- Daily leadership conversations over video conferencing enabled leadership to get input from multiple locations (5 hospitals + other clinical leaders) that were providing COVID care to determine needs, share experience, and determine next steps (1/2 hr to an hr and all get to weigh in)
- Daily update disseminated to department members so people are kept knowledgeable and engaged-
 - Feedback was very positive
 - Address each location and note what is going on there and suggestions
 - Also opportunity to express gratitude
- Important to consider the emotional state of our personnel



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Workforce Issues

- Account for all staff
- Organize staff and include down time
- Address issues such as daily schedule (who is in OR, ICU, on intubation teams, and vent management teams), vacation, call, overtime
- We went to shifts- no longer weekdays vs weekends- no call, no overtime
- Collaborate with all locations to determine who is assigned to which location



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Workforce Issues

- Centralize overall schedule 1 leader- organizing 100s of people (critical resource and had a backup for this person)
- Define Teams and Teams Leaders and let Team Leaders help make their schedule
- Take into consideration that you will lose staff for various amounts of time as they become symptomatic and/or COVID +
 - (Over half of residents out during spring pandemic surge)
- Be flexible as staff needs increase for certain teams



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Staff

- Anesthesiologists (OR and ICU)
- CRNAs
- Residents
- All staff can play an important role so need to make sure they aren't deployed elsewhere – especially impt for CRNA workforce
- Their schedules should be organized and fed into the Team schedules
- Anesthesia Techs need to be available



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Teams

- OR teams- less need for this- really only emergencies (good on-site backup) because we just had no idea what was coming
- ICU attendings- Many major AMC have anesthesiology intensivists—we freed them from OR to focus 100% on ICU patients as COVID ICU floors opened. New pavilion all negative pressure rooms so could develop many ICUs
- A second pool of anesthesiologists was created that help with ICU management
- Anesthesia care team members helping with vent management and other issues. Excellent collaboration among attendings, CRNAs, residents, anesthesia techs and the floor nurses so they understand how our anesthesia machines work- learning curve to this
- AVPP team



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AVPP Teams

- **A**irways- Doing the intubations
 - **V**entilation Management- Managing ventilator settings and supplies and equipment as necessary
 - **P**rocedures- placing lines- A lines, central lines, IVs
 - **P**rone Positioning- We know the prone position, so can help with moving and proper positioning
- Both Attendings and Residents on these teams AMC have this ability
- These Teams are really appreciated by the clinicians and the hospital leadership!**



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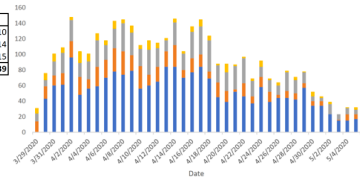
AVPP Teams

AVPP Team Consults at NYU Langone Health During the COVID-19 Pandemic

NYU Langone Health AVPP Team Consults and Team Composition

	Manhattan	Brooklyn	Bellevue	Winthrop	TOTAL
Intubations	236	274	113	287	910
Lines	635	*	579	*	1214
Prone	1097	518	*	*	1615
Total	1968	792	692	287	3739

Data not available from the site



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Collaboration With Others is Key We are Working With Very Large Organizations

- Work with others in the institution-
Speak with leaders in C suite and inform them what is going on and your roles
Participate in daily briefings – new floors opening and staffing models, vents, etc.
- ID- Frequent conversations,
Webinar to Department –early on- let dept members know what is going on-
Constantly changing landscape for PPE and indications



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Collaboration

- ICU personnel and management- to define where best to deploy people (our anesthesia/CC attendings should be where anesthesia machines are used)
- Emergency Management- to make sure you get needed PPE and supplies
- Respiratory Therapy- know how many vents there are and work with them
- Anesthesia Machines- know where you are going to deploy them and have an organized approach to manage and maintain vents and equipment for vents-



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Equipment

- Account for all supplies and equipment
- Centralize anesthesia machines from ambulatory and off-site locations
- Keep daily tally of anesthesia machines and their locations (both those in use and spares)
- Let those working overnight know location and latest counts in case of surge (ex. Call after midnight from NYU CMO- "Andy- We need ventilators now")
- If you think you might need something down the line- get it now or have a plan how you will be able to procure it as the need arises
- Know where your equipment and supplies are being stored
- Make sure you establish what ORs can be negative pressure, designate those and maintain them as negative pressure



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Use of Anesthesia Machines in the ICU

- Gain experience
- Cohort your anesthesia machines
- Think it best if you can have anesthesia machines and your anesthesia intensivists in same location
- Experience helps you organize management issues- rounds, filters, water traps, CO₂ absorbers etc.
- As things get worse, determine if you can to use all oxygen sources in the OR. Many ORs have oxygen and air sources in more than one location in OR



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If Your Department is Performing Well It Doesn't Hurt to Get Some Publicity and Get Credit for What You Do

- Medical Director of Joint Commission volunteered in one of our ICUs- Did not reveal his day job- email shared with NYU leadership (Dean et al.)
- “I have seen a lot of tremendous care in my life, but what I saw at NYU was simply the best.”
- “Specific to your department, I want to call out how exceptional it is that your attending anesthesiology staff were there in the middle of the night leading the proning, access, intubation teams”
- “Recently, I have been working with airlines on high reliability; I saw many of the principles at work in your institution. Specifically, safety culture, deference to expertise rather than authority, and resilience were top notch.”



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Pain Medicine

- Multiple conversations with Pain Medicine leadership
- Followed direction of medical center on in person visits, etc.
- Offices and Clinics were closed
- Transitioned to Telemedicine
- Kept service going but at significantly lower rate.
- Now a hybrid of Telemedicine and in person and back up to about 90% of pre-COVID levels
- We have spaced out timing of office and procedure visits
- Need to have a plan to stratify pain procedures – which to do or wait
- Need to have a plan to address patients on chronic opioids



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New York Summer 2020 - Eye of the Storm



Image by Wikimedia from Pixabay



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Preparing For The Second Wave- Fall 2020

- Reopen the play book
- Seems to be an increasing sense of anxiety developing- so communicate
- Remember who in your department stepped up and played a critical role in helping the department and the institution and use their help
- Keep track of the workforce
- Perhaps they will not shut down ORs so fast this time
- AVPP Teams- Don't do this alone, especially proning, use other services as it is a major time and personnel commitment
- Have supplies and equipment available
- Be flexible



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Summary

- Developing an organized approach to this crisis is important
- Each crisis is different but:
- As anesthesiologists we are used to being flexible and need to use that ability to help the institution fight this issue
- As anesthesiologists we have the clinical skill set to play an important role
- Good leadership and organization sends a positive message so the staff knows things are under as much control as possible
- Be safe!
- Thank you



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