**Master Checklist**

1. Set up incident command
2. Created a surge checklist
3. Know where you can surge to
4. Know where to go for critical supplies like oxygen
5. Prepared staff for role changes
6. Obtained necessary equipment such as ventilators and PPE
7. Redesigned your immediate information flow electronically or manually
8. Created a triage process for decision making in the emergency room
9. Developed education materials for patients and families on their options
10. Reviewed data modeling on what your outbreak may look like

**Phase 1-Prep for surge**

Set Up Telehealth for Primary Care Visits
Triage Patients by Phone
Create a process to screen, test, and identify patients
Educate Staff and Patients About COVID-19
Implement the COVID-19 Metrics Tracking
- Total number of Covid+ patients and their bed location (ICU, non-ICU, and ED)
- Total number of Persons Under Investigation (PUI) and their location
- Total number of Covid or PUI patient expirations (ICU, non-ICU, and ED)
- Total transfers from ICU to non-ICU and vice versa
- Total discharges to home or other facilities
- Total number Covid tested (Admitted, Discharged, and Admission Decision Pending)
- Number and location of negative pressure rooms
- Total number of surge critical care beds and occupancy by location
- Total number of surge non-critical care beds and occupancy by location
- Total number of patients on invasive and non-invasive ventilation

Identify Patients at Risk of COVID-19 Complications
Postpone Elective Surgical Cases
Inventory PPE including on-order
Create a process to distribute PPE faster
EHR-Make a plan to rapidly add new (temporary) rooms in the HER
Estimate the number of transporters needed to move patients
Surge plan for managing medications, IV tubing, ventilator supplies, oxygen supplies, lab supplies, etc.

Patient’s can’t have visitors. Develop a plan/policy on what technology will be available to them to communicate with their family (i.e. not everyone has a smartphone or a tablet... will the hospital supply those?).
Plan for tracking billing, etc. as things will change fast...who is watching to ensure the hospital can get paid where appropriate?
Layoffs, furloughing staff, donating to staff funds, etc. There need to be a plan for who will track and how decisions will be made to distribute, etc.
Some organizations are looking for staff that weren’t working for them previously. Need an expedited process to verify credentials, licensure, etc.
If an organization ‘donates/loans’ equipment to another organization, what is the plan to ensure the equipment is returned (and in good working condition)?
Identify PPE Urgent Kanban
Identify who is managing Inventory
Identify who is managing resupply
Set up Incident Command. Assign rotations and roles to keep incident command running.
Identify who to call in emergency when forecasted PPE inventory is projected to be past key point. Validate phone numbers & contact process.
Create a plan for patient flow
Create a patient visit plan & communications
Catalogue all available spaces that could be potentially used for patient care with little to no modification (e.g., PACUs, unused hospital wings, ambulatory surgery centers)
Identify alternative care sites that could be used for patient care with state assistance, such as recently used, now vacant facilities. Catalogue capacity, time required to be operational, and financial needs.
Identify opportunities for regulatory relief that would enable surge capacity while safeguarding patient care.
Determine which staffing model and options are feasible under contingency and crisis scenarios to care for the maximum number of patients if all alternative spaces and sites are utilized.
Identify support staff, for instance, facilities management, required under contingency and crisis scenarios
Identify plan to expand patient care workforce: -Identify personnel currently serving in other patient care settings within the organization that could be redeployed to surge needs. -Train healthcare workforce to perform critically needed functions like ventilator management. -Determine which office personnel could fill alternate roles to support care sites.
Monitor staffing and supplies from ancillary services such as laundry & housekeeping, food services, and environmental services. Develop business continuity plans in the event that contractors’ ability to conduct their business is impacted
Develop plans for conservation of PPE.

Create mechanism for real-time tracking of critical equipment that will be shared across units or between staff.
Develop methods for maximizing available ventilator support (e.g., BIPAP with ET tube, etc.).
Plan to obtain clinical staff from other settings (e.g., Ambulatory Surgery Center CRNAs managing critical care vents) and utilize office staff in patient care support roles (food delivery, runners, etc.)
Create a feeding plan for staff
Create a hydration plan for staff
Add remote monitoring to all ICU beds to minimize patient contact
Create/validate ventilator allocation algorithms.

Some of your staff have served in Military Field Hospitals--are you using their experiences?

Plan to quickly onboard new or temporary staff. Include technology systems too
Surge rooms have to start first by determining the oxygen requirements. Next can they converted to negative pressure, which means the rooms must have a window where an HVAC can be installed. Next, there must be the option to install a sink because there is likely patients will need dialysis. This should all be in place before the crisis hits.

Start working on the staffing model now. They have created a model with one intensivist matched with at least two other non-intensivist doctors. The intensivist acts as the "chief" both training and working with the other doctors who now are caring for critically ill patients on ventilators which they don’t normally do. The same model works in nursing. The ICU nurse is matched with other nurses and is the lead, training and working side by side with colleagues not used to caring for critically ill patients.
The Lean improvement team has been called on to do rapid cycle improvement events with staff. Sometimes one hour in length coming up with new ideas that are immediately tested and then studied and adjusted. Many new processes have emerged in a very short time frame.
Create a staff communications plan.

Phase 2-During the surge

Utilize current mechanisms to monitor staffing levels and absenteeism on daily basis, including employee health tracking of staff impacted by COVID-19.
Track PPE burn rates and forecast on-hand inventory

Complete COVID-19 testing based on tiered approach promoted by DHS based on established CDC guidelines.
Begin utilizing alternative care sites.
Transition patients home with appropriate care.
Transition low-acuity ED and low-acuity admitted patients to ambulatory care sites.
Begin cohorting COVID-19 patients to minimize impacts on infrastructure.
Obtain clinical staff from other settings (e.g., Ambulatory Surgery Center CRNAs managing critical care vents) and utilize office staff in patient care support roles (food delivery, runners, etc.)
Move staff between institutions via mutual aid agreement or centralize patients to optimize staff
Further limit COVID-19 testing to critically ill or hospitalized patients in accordance with state lab and CDC guidelines.
The Lean improvement team has been called on to do rapid cycle improvement events with staff. Sometimes one hour in length coming up with new ideas that are immediately tested and then studied and adjusted. Many new processes have emerged in a very short time frame.
Develop a consistent message for the providers and staff to utilize in communicating difficult care decisions to patients and families
Order more body bags
Use the communications plan
Create a inclimate weather plan for field hospitals

Surge capacity reached or exceeded

Referral to non-traditional care sites
Care for ICU patients in step-down care or med-surge as necessary
Alter admission and discharge criteria
Utilize staff beyond usual scope of practice
Continue to implement telemedicine critical care and specialty consultation when critical care transfers are not possible
Allow students/trainees to practice without usual amount of supervision
Allow COVID-19 positive healthcare workers to care for COVID-19 patients
Implement crisis PPE sparing practices, per CDC recommendations.
Utilize ventilator allocation algorithms.
Track the morgue's capacity
Phase 3-Prepare for restart

Phase 4-restart

Phase 4 (new normal)