UCI Health COVID Surge Plan & Crisis Care Guidelines

COVID-19 SURGE & CRISIS CARE OPERATIONS

Background

This document is a framework designed to support UCI Health operations during the COVID-19 pandemic, which may cause an overwhelming surge of patients seeking medical care. This guidance exists within the framework of the UCI Health Hospital Incident Command System (HICS) and incorporates healthcare emergency management planning and processes that underlie scarce resource decision-making. UCI Health's goal during medical surge events is to maximize surge capacity strategies that mitigate the crisis while minimizing the risks associated with deviations from conventional care; posing the least risk to patients and healthcare providers.

Situation

UCI Health frequently operates at 100% bed utilization. The COVID surge has further strained our operations, despite all possible efforts to decompress the system. These efforts include ED diversion for saturation, trauma center diversion, minimizing non-urgent operative volume, deferring transfers from other institutions and transferring patients to other healthcare facilities in Orange County and beyond. As the surge of COVID patients appears to continue unabated, we have initiated our disaster response plan to further expand the number of available beds in order to safely serve our community for both COVID and non-COVID related health care needs.

UCI Health Serves a Critical Need to Orange County

Beyond the need to care for COVID in Orange County, UCI Health serves as the county's only academic and tertiary/quaternary care hospital, providing the highest level of care for referrals from less resourced

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institutions. Having closed the hospital to normal operations in March and April, we have been able to prepare on multiple fronts to safely manage this expected COVID surge that is currently underway. We have advanced our surge/disaster planning, reconfigured areas of the hospital, secured adequate PPE, expanded our COVID testing capability, trained staff, created a screening process for safe access, significantly expanded virtual care access to meet our community's needs and identified alternate spaces for the management of inpatient care. This includes a mobile hospital that was established with the support of the Orange County Emergency Management System, the Orange County Healthcare Agency and the California Department of Public Health. With these efforts completed, we are better prepared to manage the current COVID surge without compromising our ability to perform other critical functions unique to the tertiary/quaternary services provided by UCI Health.

Baseline Mitigation Strategies Employed

As previously mentioned, the enterprise has initiated processes to accommodate the increasing number of COVID patients while continuing to perform our traditional service to the Orange County community. These processes include:

1. Emergency Room Diversion for Saturation

   The hospital, operating at licensed bed capacity, has experienced a large number of admitted patients who need to be boarded in the Emergency Department until inpatient beds become available. This is occurring as the ED continues to receive record numbers of patients requiring the full spectrum of emergency care, as well as large numbers of patients with COVID, and walk-up patients who demand COVID testing that is unavailable elsewhere due to backlogs. While temporarily reducing volumes, ED diversion is problematic as it prevents access to the highest level of care emergency services that only UCI Health can provide, most notably acute stroke, pulmonary, and cardiothoracic care, including extracorporeal membrane oxygenation (ECMO). Furthermore, in times of countywide surge, diversion is not allowed for any hospital.

2. Trauma Diversion

   Trauma Diversion should be an approach of absolute last resort as we are the only level 1 adult and a level 2 pediatric trauma center in Orange County. With outcomes in the top decile for trauma centers nation-wide, it is critical that UCI Health remains able to continue providing this service to the community at all times.

3. Operative Volume

   A detailed plan has been employed to reduce operative volume to a necessary minimum. We have focused on expanding operative volume that is ambulatory in nature to our ambulatory surgery site. As the only academic and tertiary/quaternary care center in Orange County, we recognize our need to continue operative cases that are urgent/emergent and cannot be further deferred. In the March through May 2020 "Stay At Home" period, we shut down all non-emergent operative volume in order to prepare for this surge. However, this shutdown of elective surgery created a significant backlog of patients requiring procedures, many of which can no longer be deferred.

Our plan for further reducing the impact of the operating room on inpatient bed utilization involves daily review of cases by physician leaders and hospital administration. Effective January 6, 2021 we moved from our internal tiered surgical triage process to Elective Surgery Acuity Scale (ESAS), as ordered by the California Department of Public Health (CDPH). ESAS Tier 1 and 2 surgical procedures will be delayed for at least as long as the Order remains effective in Orange County.

UCI Perioperative COVID-19 Resource Mitigation Plan

ESAS Prioritization of Surgical Cases:

Tier 1a: Low acuity surgery/healthy patient-Outpatient surgery-Not life threatening illness
Tier 1b: Low acuity surgery/unhealthy patient
Tier 2a: Intermediate acuity surgery/healthy patient-Not life threatening but potential for future morbidity and mortality-Requires in hospital stay
Tier 2b: Intermediate acuity surgery/unhealthy patient
Tier 3a: High acuity surgery/healthy patient
Tier 3b: High acuity surgery/unhealthy patient

4. Transfer Center/Case Management

The transfer center has employed a two-fold plan. In times of surge, we have minimized transfers into UCI Health from outlying hospitals. Much like the trauma center, this is a strategy of last resort, as we are the only tertiary/quaternary care center for Orange County. As such, many of the transfer requests are for a higher level of care, are critical to the successful treatment and recovery for patients with complicated conditions. Every effort is made to prioritize transfers wherein UCI Health is the only provider available to appropriately care for a patient's advanced or complex condition.

Secondly, the UCI Health Transfer Center and Care Management teams have worked tirelessly to expedite transfer out, of both COVID and non-COVID patients, to other hospitals and facilities across Orange County and beyond to clear beds to more acutely ill incoming patients. We have developed a contractual relationship with Garden Grove and OC Global medical centers to allow direct admissions to their inpatient services from our emergency department. We have also forged a close relationship with four long term acute care hospitals (LTACHs) in the area and have been sending the full spectrum of both COVID and non-COVID patients to available beds in that network, from critically ill to rehabilitation-ready patients.

Surge Capacity

The goal of UCI Health during a medical surge event is to maximize surge capacity strategies that mitigate the crisis while minimizing the risks associated with deviations from conventional care. Choosing the strategies that are most appropriate to the situation and pose the least risk to the patient and to the healthcare provider first, and then proceeding to riskier strategies as demand increases and options decrease, is the preferred path.

Surge Level I – No Strain: Sufficient medical/surgical and telemetry beds to meet patient needs. Cohort COVID cases to specific units; Towers 3, 4, 5 - all single occupancy rooms. Adequate ICU capacity for COVID and non-COVID volumes.

Surge Level II – Moderate Strain: Repurpose existing beds/capacity, such as: relocation of adolescent psychiatric population to CHOC, increase emergency department capacity through hallway bed designations, conversion of limited use beds into general medical/surgical beds (i.e., adult rehabilitation unit, perinatal space, etc.) and holding 23-hour observation patients in outpatient procedural areas. Daily assessment of the number of OR cases requiring ventilator support; compared to COVID-level ventilator requirements.

Surge Level III – Significant Strain: Expand the number of cohorted COVID units from Tower locations to Douglas Hospital. Evaluate medical/surgical and other general acute care beds for ICU space.

Surge Level IV – Severe Strain: Addition of 50 bed capacity mobile hospital unit, creation of inpatient care spaces in waiting rooms of Douglas Hospital (5th, 6th, 7th floors), expand into buildings 23 and 22C, conversion of ED Annex to ICU level care for inpatients. Step down units convert to meet ICU level patient care needs. Convert PPCU for non-COVID SDU needs.

Surge Level V – Crisis Capacity: Non-COVID patients to additional non-acute care spaces such as interventional radiology, outpatient surgery suite and outpatient GI procedure area.

Implementation

The HICS Incident Command will make determination, in conjunction with hospital executive leadership, on implementing surge plan levels and mitigation strategies. As emergency surge events are fluid and developing hospital operations must be agile to adapt to the need. Each element of the plan can be activated independently or simultaneously. Document surge plans are developed as a guide but may need to be modified to suit current or unanticipated needs. The HICS Incident Command has ultimate authority to make decisions on implementation of surge countermeasures.

Supply Management

UCI Health actively anticipates supply needs and has made every effort to procure, in advance, supplies through usual supply chains and standing vendor contracts. In addition, when resources are scarce, UCI Health pursues aggressive measures to acquire needed equipment such as ventilators. These measures include coordination with healthcare coalition partners and local reserves that may provide a source of supplies otherwise in shortage. When usual supply chain sources are exhausted, supply resource requests are made through the local Medical Health Operational Area Coordinator, who in turn attempts to fill requests through regional and state level stores of supplies and various procurement capabilities.

Staffing

UCI Health is committed to providing safe and adequate staffing for patient care. We believe in maintaining staffing ratios, to the degree possible, provides optimal patient care and reduces the stress on healthcare workers in already challenging times. Strategies to maintain staffing levels include internal financial incentives for extra shift participation as well as leveraging contractual relationships with external temporary staffing agencies and travelers to meet the need. We ensure that staff have an awareness of the Crisis Continuum plan

and the extent to which it affects each individual patient care area. Competency of individual staff members as it pertains to the specifics of the plan and the areas involved is ensured. Nursing leaders are made aware of the specific elements of the plan and the escalation procedures required to execute through daily virtual huddles.

Clinical Support Services

With the advent of each Surge Level previously described, UCI Health has orchestrated real time and tabletop exercises to walk through the processes expected to ensure seamless provision of care and emergency responses. Before any non-traditional care area is utilized, or before use of a traditional area is changed, a "day in the life" exercise is performed which includes testing of emergency responses. All ancillary and support level services are included in these exercises. This is to ensure a familiarity of roles and responsibilities relative to the crisis care and to promote modifications and enhancements to the existing plan.

Crisis Care – Allocation of Scares Resources

Every effort is being made to avoid reaching the point of triaging or allocation of scarce resources at UCI Health. The University of California early, and thoughtfully, brought together experts from across the system, including leaders from UCI Health, to formulate the plan for "Allocation of Scares and Critical Resources Under Crisis Standards of Care." The document, which is attached, outlines our guiding principles and plans during the COVID surge.

Conclusion

The UCI Health COVID Surge and Crisis Care Guidelines are intended to provide a measurable representation of the organization's ability to manage a sudden influx of patients as a result of pandemic surge. It is dependent upon the functioning of the HICS structure and the variables of space, supplies, and special considerations generic to UCI Health. As is defined by The Joint Commission, UCI Health's emergency management process details actions to increase surge capacity within the categories of space, staff and supplies. These actions include, but are not limited to, defining additional treatment spaces, executing early discharges, cancelation of surgeries and elective procedures, and increasing/sustaining required staffing levels. ICU level services include the ability to provide cardiac monitoring, invasive monitoring, mechanical ventilation, and hemodynamic management. In order to accomplish this, UCI Health has determined the additional space that can be used for ICU level care. Procedural and surgical areas including pre- and post-op care areas have been designated as appropriate locations as these areas already have the monitoring equipment necessary for critical care. An appreciation for the overall acuity of the patient population supports the determination for discharge to lower levels care including outpatient care, homecare, long-term care, or an alternate care site provided by County and/or State agencies.