Orchard HOSPITAL

Growing Healthy Communities

Capacity to Crisis Care Continuum Guidelines

The goal during a medical surge event is to maximize surge capacity strategies that will mitigate the crisis while minimizing the risk associated with deviations from conventional care. Orchard Hospital has established strategies which allows flexibility to move across care continuum's and provide safe, appropriate care within the current situation. Moving through care continuum's by starting at the lowest risk and moving to higher risk as demand increase and options decrease, supports Orchard's ability to choose the appropriate level of care which poses the least risk while in turn delivering the best possible care for the patient and community.

Capacity is described as:

- **Conventional:** Usual resource and level of care provided. For example, during a surge in

Patient's, maximizing bed occupancy and calling in additional staff to assist.

- **Contingency:** Provision of functionally equivalent care that may incur a small risk to patients.

Care provided is adapted from usual practices. For example, boarding in

Patient's in surgical same day stay rooms and using less traditional care areas,

While utilizing appropriate resources. Implementation of existing Emergency

Operations Plan – "Standby".

- **Crisis:** Disaster strategies used when the demand for patient care forces choices that

Pose a significant risk to patients, but is the best that can be offered under the

circumstances. For example, severe staffing restrictions, critically limited

resources and impacts infrastructure are identified. Emergency Operations

plan – "in- effect" is employed.

Conventional Care

Usual and normal resources and level of care provided. For example, during a surge in

Patient's, maximizing bed occupancy and calling in additional staff to assist.

Indicators and Triggers

- Emergency Department (ED) surge Alert's texted to key hospital personnel once ED tracking
  board reaches a total of 9 patients with an ESI level average of 3.5 or Lower
- Diversion protocol implemented
- Patient surge or safety issues identified through medical capacity chart from the Emergency
  Department
- Patient surge or safety issues identified through medical capacity chart from inpatient units
- Internal events compromise the organization to deliver ordinary care
- External events compromise the hospitals ability to deliver ordinary care

Emergency Operations Plan – Standby

Contingency

Emergency Operations Plan (EOP) – Standby

This designation is utilized when there is knowledge of an emergency or unusual event that may impact the hospital and requires analysis of the situation. Use of the EOP "Standby" would require a range from limited to full activation of an Incident Command system and other essential HICS positions identified in Part 1 of the EOP for planning and discussion.

Purpose: To respond and recover from internal and external emergencies that affect hospital staff, patients, visitors and the community. This plan provides a   coordinated and organized response to incidents that may overwhelm the capabilities of the organization or community health care system.

Response: Each emergency will be addressed on a "case by case" basis

Coordination: Orchard Hospital cooperates with local, regional, state, and federal agencies in coordinating emergency management efforts. Orchard Hospital is a participating hospital in the Northern California Regional Hospital Group. The Regional Plan provides guidance for sharing supplies, equipment and personnel in the event a member hospital's resources are exhausted in an emergency. A copy of the reginal plan is located in the Hospital Incident Commanders Instruction book and kept on file in Administration office.

Supply management: Supply/resource list are maintained and managed through incident operations. Additional supplies are procured as needed through Administration/finance (HICS Structure) distributed based on needs of patient care.

Emergency Operations Plan – In Effect

Crisis Management

Emergency Operations Plan - in Effect (an extension of EOP-standby)

This designation informs all hospital departments heads and employees to activate the disaster plan in response to a known or perceived situation impacting the hospital.

Purpose: To respond and recover from internal and external emergencies that affect hospital staff, patients, visitors and the community. This plan provides a   coordinated and organized response to incidents that are overwhelming the capabilities of the organization or community health care system.

Care Criteria Defined:

 - Critically limited resources and infrastructure are identified

- Emergency Operation Plan is fully employed within the organization and regionally when

   capacity and/or space is a limited resource.

- Patient transfers or admissions is not possible or will occur too late for bridging therapies.

- Necessary resources have been requested from local and regional health officials.

- A state of emergency has been declared, or other health powers have been activated.

- Regional, state, and federal resources are insufficient or cannot meet demand.

Concept of Operations: Orchard Hospital will utilize incident command, chain of command, and unity of command to manage emergency operations in response to events affecting the facility and/or surrounding community.

Coordination: Orchard Hospital will continue to cooperate with local, regional, state, and federal agencies in coordinating emergency management efforts. Orchard Hospital is a participating hospital in the Northern California Regional Hospital Group. The Regional Plan provides guidance for sharing supplies, equipment and personnel in the event a member hospital's resources are exhausted in an emergency. A copy of the reginal plan is located in the Hospital Incident Commanders Instruction book and kept on file in Administration office.

Logistical Support: Orchard Hospital has developed a network of medical facilities and medical supply sources to ensure the ability to obtain needed medical supplies in an emergency. The participating facilities include but are not limited to Enloe Medical Center and Oroville Hospital.

Triage: Designated Triage RN – Emergency Department, utilizing triage tags when necessary. Designated Triage of medical resources – Hospitalist on Duty and Incident Command. Increasing demands for

triaging resources are allocated per incident demand with clinical support team. Daily determinations for resources are evaluated and reevaluated with change and/or on a daily basis

Triage Tree
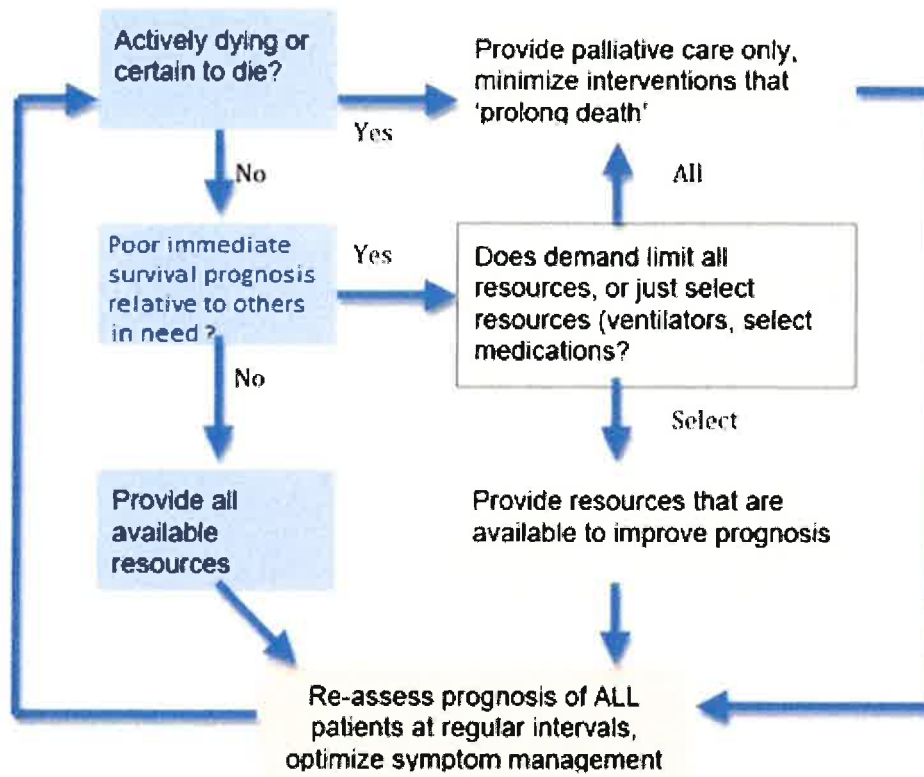
Ethical Considerations:

To protect the rights of patients and patients with disability in accordance with Crisis Care Guidelines:

 Heath care decisions, including allocation of scarce resources are not based on age, race, disability (including weight-related disabilities and chronic medical conditions), gender, sexual orientation, gender identity, ethnicity (including national origin and language spoken), ability to pay, weight/size, socioeconomic status, insurance status, perceived self-worth, perceived quality of life, immigration status, incarceration status, homelessness, or past or future use of resources;

 Rejecting any consideration of 'life years,' 'life cycles' and 'quality of life' when allocating scarce healthcare resources such as ventilators or high-flow oxygen equipment;

Ensure equal treatment in triage and allocation decisions, including adjustments to triage scoring, and longer ventilator trials to account for pre-existing disabilities;

Require effective communication either virtually or in person or with appropriate decision maker for people with disabilities including people who are deaf, people with non-verbal language, people with I/DD, and people with Alzheimer's or another form of dementia.

Prohibit visitor limitations to permit a disabled or older patient to bring a family member, personal care attendant, communicator, or other helper to the hospital with them.

Ensure that there is an appointed Disability Accommodations Specialist or Ombudsperson who has the responsibility and authority to ensure that older adults and people with disabilities receive needed accommodations needed for effective COVID treatment.

Patient Rights Policy utilized for any patient grievance

Allocation of medical resources: Sequential Organ Failure Assessment (SOFA) score tool. Addendum A

Alternate Care Sites: Alternate areas of care are identified which range from sites within the facility utilizing non patient care areas to employing an alternate care site utilizing disaster tent. Incident command will determine when or if it would need to deploy the isolation tent based on the severity and length of time our continuity of care plan is activated.

Supply management: Supply/resource list are maintained and managed through incident operations. Additional supplies are procured as needed through Administration/finance, Local MHOAC and distributed based on needs of patient care and availability of resources. Maximum efforts in force to conserve, substitute, adapt, and re-use supplies. Examples include, bed pans, beside water pitchers, urinals and disposable instruments that are able to be autoclaved.

Staffing needs: Staffing needs which exceed organizational resources will be staffed by local and national registries. Staffing needs not fulfilled through these avenues will be requested from MHOAC.

Nutritional support: 72 hour Emergency Water supply and emergency meals on site.

Supportive Polices:

Butte County MHOAC Program

Continuity of Operations Plan

Disaster communication

Disaster Department Level Command

Disaster HICS Incident Command System

Disaster Labor Pool

Disaster Security

Emergency Operations Plan

Patient Rights

STEP 1: **Calculate each patient's priority score using the multi-principle allocation framework.** This allocation framework is based primarily on two considerations: 1) saving the most lives; and 2) saving the most life-years. Patients who are more likely to survive with intensive care are prioritized over patients who are less likely to survive with intensive care. Patients who do not have serious comorbid illness are given priority over those who have illnesses that limit their life expectancy. As summarized in **Table 1**, the Sequential Organ Failure Assessment (SOFA) score (or an alternate, validated, objective measure of probability of survival to hospital discharge) is used to determine patients' prognoses for hospital survival. In addition, the presence of life-limiting comorbid conditions, as determined by the triage team, is used to characterize patients' longer-term prognosis.

Table 1. Sequential Organ Failure Assessment (SOFA) score SOFA Scale

Variable	0	1	2	3	4
PaO2/FiO2 mmHg	>400	$\leq$ 400	$\leq$ 300	$\leq$ 200	$\leq$ 100
Platelets, x 103/µL (x 106/L)	> 150 (>150)	$\leq$ 150 ($\leq$ 150)	$\leq$ 100 ($\leq$ 100)	$\leq$50 ($\leq$50)	$\leq$ 20 ($\leq$ 20)
Bilirubin, mg/dL (µmol/L)	<1.2 (<20)	1.2-1.9 (20 – 32)	2.0-5.9 (33 – 100)	6.0-11.9 (101 – 203)	>12 (> 203)
Hypotension	None	MABP < 70 mmHg	Dop $\leq$ 5	Dop > 5, Epi $\leq$ 0.1, Norepi $\leq$ 0.1	Dop > 15, Epi > 0.1, Norepi >0.1
Glasgow Coma Score	15	13 – 14	10 - 12	6 - 9	<6
Creatinine, mg/dL (µmol/L)	< 1.2 (<106)	1.2-1.9 (106 – 168)	2.0-3.4 (169 - 300)	3.5–4.9 (301 – 433)	>5 (> 434)

Sequential Organ Failure Assessment (SOFA) score SOFA Scale
Dopamine [Dop], epinephrine [Epi], norepinephrine [Norepi] doses in ug/kg/min SI units in brackets
Adapted from: Ferreira Fl, Bota DP, Bross A, Melot C, Vincent JL. Serial evaluation of the SOFA score to predict outcome in critically ill patients. JAMA 2001; 286(14): 1754-1758.

Table 2. Multi-principle Strategy to Allocate Critical Care/Ventilators During a Public Health Emergency

Principle	Specification	Point System*			
		1	2	3	4
Save the most lives	Prognosis for short-term survival (SOFA score#)	SOFA score < 6	SOFA score 6-8	SOFA score 9-11	SOFA score ≥12
Save the most life-years	Prognosis for long-term survival (medical assessment of comorbid conditions)	...	Major comorbid conditions with substantial impact on long-term survival	...	Severely life-limiting conditions; death likely within 1 year

Points are assigned according to the patient's SOFA score (range from 1 to 4 points) plus the presence or absence of comorbid conditions (2 points for major life-limiting comorbidities, 4 points for life-limiting comorbidities likely to cause death within a year (**Table 2, and Table 3**)). These points are then added together to produce a total priority score, which ranges from 1 to 8. Lower scores indicate higher likelihood of benefiting from critical care, and priority will be given to those with lower scores.

Table 3. Examples of Major Comorbidities and Severely Life Limiting Comorbidities*

Examples of Major comorbidities (associated with significantly decreased long-term survival)	Examples of Severely Life Limiting Comorbidities (commonly associated with survival < 1 year)
- Moderate Alzheimer's disease or related dementia - Malignancy with a < 10 year expected survival - New York Heart Association Class III heart failure - Moderately severe chronic lung disease (e.g., COPD, IPF) - End-stage renal disease in patients < 75 - Severe multi-vessel CAD - Cirrhosis with history of decompensation	- Severe Alzheimer's disease or related dementia - Cancer being treated with only palliative interventions (including palliative chemotherapy or radiation) - New York Heart Association Class IV heart failure plus evidence of frailty - Severe chronic lung disease plus evidence of frailty - Cirrhosis with MELD score ≥20, ineligible for transplant - End-stage renal disease in patients older than 75

*This Table only provides examples. There are likely other reasonable approaches to designating 0, 2, or 4 points according to the "save the most life-years" principle. Indices such as Elixhauser or COPS2 may be used, but these scores may be difficult to calculate quickly.

Other scoring considerations:

Giving heightened priority to those who have had the least chance to live through life's stages:

We suggest that life-cycle considerations should be used as a tiebreaker (see below) if there are not enough resources to provide to all patients within a priority group, with priority going to younger patients. We recommend the following categories: age 12-40, age 41-60; age 61-75; older than age 75. The ethical justification for incorporating the life-cycle principle is that it is a valuable goal to give individuals equal opportunity to pass through the stages of life—childhood, young adulthood, middle age, and old age.[7] The justification for this principle does not rely on considerations of one's intrinsic worth or social utility. Rather, younger individuals receive priority because they have had the least opportunity to live through life's stages. Evidence suggests that, when individuals are asked to consider situations of absolute scarcity of life-sustaining resources, most believe younger patients should be prioritized over older

Level 1 Not Busy/Busy	Level 2 Saturated/ Conventional	Level 3 Overcrowded/Conventional	Level 4 Surge/Conventional	Level 5 Contingency	Level 6 Crisis Care
• The ED Lead Nurse (LN) will monitor the saturation level of the department as needed and report to the Supervisor any acute changes. • The LN ensures that immediate bedding is implemented. • ED providers conduct MSE timely. • LN ensures that patients are discharged timely once discharge orders are written. • Admitted patients are taken to their Inpatient beds timely.	• The ED LN will monitor the saturation level of the department every (2) hours as needed and report to the MD, Supervisor/Director. • The LN ensures that immediate bedding is implemented. • ED providers conduct MSE timely. • LN ensures that patients are discharged timely once discharge orders are written. • Admitted patients are taken to their Inpatient beds timely. • LN begins to assess department for any proactive issues that can be solved to prevent patient flow from slowing down, I.E. housekeeping picking up laundry, supplies that need to be restocked, equipment or staffing needs identified, set up discharge chairs if needed.	• LN assess the department hourly. • Reports any changing status to MD, HS, or ED Supervisor/Director. • Set up vertical patients. • Set up discharge chairs. • Nursing Supervisor to contact leads of all ancillary services and inpatient units to alert them to the ED Status. • Each inpatient unit will help expedite any inpatient admissions and evaluate any discharges that can be expedited to accept new admissions. • Housekeeping will report to ED to help clean beds, empty full laundry hampers, fill linen cupboards. • Radiology and lab will expedite ED patients.	• LN asses the department hourly and huddles with MD every 1-2 hours. • Reports any changing status to MD, HS, or ED Supervisor/Director. • Set up vertical patients. • Set up discharge chairs. • Nursing manager to contact leads of all ancillary services and inpatient units to alert them to the ED Status. • Each inpatient unit will help expedite any inpatient admissions and evaluate any discharges that can be expedited to accept new admissions and consider exceeding nurse to patient ratio's temporarily. • Housekeeping will report to ED to help clean beds, empty full laundry hampers, fill linen cupboards. • Radiology and lab will expedite ED patient. • ED supervisor will rally any extra staff to help in the ED. • Notify EMS for patient transfer.	• Charge Nurse asses the department hourly and huddles with MD every 1-2 hours. • Reports any changing status to MD, HS, or ED Supervisor/Director. • Set up vertical patients. • Set up discharge chairs. • contact leads of all ancillary services and inpatient units to alert them to the ED Status. • Each inpatient unit will help expedite any inpatient admissions and evaluate any discharges that can be expedited to accept new admissions. • Housekeeping will report to ED to help clean beds, empty full laundry hampers, fill linen cupboards. • Radiology and lab will expedite ED patients. • Manager will rally any extra staff to help the ED. • CNO or administrator or administrator on call notified for EOP 'standby' • IP beds held for surgical patients are opened up for ED admits. • Elective surgeries evaluated for any potential rescheduled	• Administration drives EOP plan implementation "In Effect" • Look at alternate care site setup • Identify any staffing support needed • Supply assessment • Additional EOP guidelines • Surgical cases canceled

EMERGENCY DEPARTMENT SATURATION LEVEL BASED SURGE RESPONSE PLAN

Color-Coded Communication and collaboration methodology for safe and efficient practices in times of high demand.

- All surgical cases evaluated for necessity.

Orchard Hospital In Patient Medical Capacity Management

Color-Coded Communication and collaboration methodology for safe and efficient practices in times of high demand.

PART 1 – CRITERIA

Status:	GREEN Conventional	YELLOW Conventional	ORANGE Contingency	RED Crisis Care
Definition:	**CRITERIA** Staffing, resources and bed availability match patient needs and there is ease in collaboration between all departments.	**CRITERIA** A state of early triggers identifying a need to initiate early interventions to avoid escalation and meet patient demand.	**CRITERIA** Escalating demand without available capacity and/or resources. Aggressive action is required to avoid declaring internal disaster. EOP "standby"	**CRITERIA** Implementation of Rapid Influx of Patient Diversion Policy is required. Will take many hours of intervention, perhaps days, to return to equilibrium. EOP "In effect"
Census/Beds (census number, number of available beds, procedures, visits, other volume indicators)	- Inpatient beds avail >4 - >1 MBU beds avail. - Identified discharges - Post-ops have tentative bed assignments	- Empty inpatient beds <2 - 0 MB bed - Census Alert in progress; unable to take incoming transfers/take back patients - Any Med surg level patients in MB beds moved immediately/ASAP if bed available - Multiple admissions at once/short period of time.	- 100% occupancy with impending, temporary use of unlicensed space. - No/Few Identified timely discharges. - Alternate Discharge waiting area set up - Evaluate Surgeries to rescheduled/no new elective cases added. - multiple admits, alternate care sites considered.	- >100% occupancy with use of unlicensed space - No or few identified discharges - Holding surgeries/amby overflow full - Alternate Discharge waiting area set up - Surgeries cancelled
Employees/Staffing (Number of staff, required vs. actual dept. vs. unfamiliar staff.	- Most departments meet staffing standards. - All acute units have sufficient license staff over staffing plan/PCS/ratios. May be "short" in support staff positions - Staff may be avail. O/C. - Full Staff	- Acute units staffed per staffing plan/PCS/ratios. - No staff O/C - Multiple registry and/or unfamiliar/float staff scheduled. - Some ancillary departments do not meet staffing standards. - Multiple sick calls	- Multiple departments staffed bellow staffing plan/PCS/ratios. - No additional staffing resources available (registry, other depts.) - Supervisors on units with some not available. - (Increase IHR incentive$) - Financial incentives in place and labor pool back up resources exhausted.	- Multiple departments staffed critically bellow staffing plan/PCS/ratios. - No additional staffing resources available (registry, other depts.) - Financial incentives not effective. - All management/non-direct care staff reassigned to patient care/clinical areas with some not available.
Acuity (special patient needs, STATS, special circumstances)	- Acuity calculated - Low Acuity – swing bed status - Mod Acuity – medical patients - High acuity – Monitor Bed Status - Manageable number of special needs patients (see "yellow") allowing needs to be met without stretching resources.	- Multiple special needs patients such as: - mental/behavioral health - Confusion/needs safety attendance - Combative patients - isolation/precautions - high number of ETOH withdrawal - patients that require private room - High fall risk	- Multiple special needs patients in multiple units - Emergency surgeries - Pandemic Event	- Multiple ICU admits and/or special needs - Emergency surgeries - Co-horting pandemic patients and setting up alternative care areas
Resources (Equipment, Supplies, Information system)	- Equipment & supplies avail. & in stock on units. - IS services running and support available. - All utilities functioning (phones, elevator, power, water, gases, air handling service, etc.)	- Equipment & supplies limited &/or not accessible on unit within acceptable time frames. - Prolonged unscheduled IS downtime, or immediate post down-time affecting workload and/or communication > 4 hours. - Imaging/diagnostic equipment down - Failure of one or more utilities, although adequate back up is available	- Significant and prolonged equipment and/or supply shortages or prolonged delays - Severe pharmaceutical/blood Shortage - Imaging/diagnostic/critical patient care equipment down/unavailable. - back up system/ process is stretched - One or more utilities failed - Prolonged unscheduled IS downtime,>4hours	- Key equipment & supplies unavailable. - Full IS downtime >24 hrs. Impacting communication and workload without availability of adequate support - Multiple utility/power failures.

PART 2 – INTERVENTIONS

For every criteria there must be a "call to action" or intervention.

These are the required responses to achieve success in reducing the status to the next lower level.

Status:	GREEN Conventional	YELLOW Conventional	ORANGE Surge Plan	RED Crisis Care
Definition:	Staffing, resources and bed availability match patient needs and there is ease in collaboration between all departments.	A state of early triggers identifying a need to initiate early interventions to avoid escalation and meet patient demand.	Escalating demand without available capacity and/or resources. Aggressive action is required to avoid system overload and gridlock	Implementation of Rapid Influx of Patient Diversion Policy is required. Will tale many hours of intervention, perhaps days, to return to equilibrium.
	INTERVENTIONS	**INTERVENTIONS**	Set Up Incident Command	Incident Command in full response
			INTERVENTIONS	**INTERVENTIONS**
Census/Beds (census number, number of available beds, procedures, etc.)	· Beds cleaned within 30 minutes or less · Consider identifying surgeries that may be placed "on hold" if status progresses · Bed all appropriate patients together in double rooms.	· Assign specific post-op bed just prior to/during procedure · Evaluate surgeries for potential "hold" or rescheduling. · All out patients in out pt. treatment areas remain but readiness for closure. · Notify hospitalist of impending situation. · Request timely discharge. · Triage for other potential discharges.	· Consider increased accommodation In unlicensed space (corridors, conference rooms, etc.) for inpatients · Consider rescheduling non- emergent surgeries, procedures, treatments · Activate "discharge holding area" · Notify P.R. Dept. to set up staff for Service Recovery area. ·	· Consider use of other offsite non-hospital areas (i.e. Community Clinic,) for acute care inpatients · Cancel elective surgeries
Acuity (special patient needs, STATS, special circumstances)	· STAT's ordered appropriately	· Mobilize case managers and discharge planners to assist with identifying potential discharges or transfers.	· Consider expanded use of non-clinical staff in observation roles to insure pt. safety. · Consider runners for labs, etc. · Consider use of both Social Workers and case managers	Utilize basic IP triage tree
Resources (Equipment, Supplies, Information system)	· Minimize # of late trays · Call diet orders timely · Evaluate availability of IV Pumps, monitors, ventilators, pillows, linen in relationship to potentially climbing census.	· Add linen restock · Send spare gurneys to area of need · Increase trash empty	· Buyers/fiscal implement local shopping/immediate purchase for needed supplies. · Consider call in of additional IS tech support. · Consider call in additional Materials, Engineering, and other support staff.	· Set up incident command if not up and functional · Notify CDPH
Employees/Staffing (Number of staff, required vs. actual dept. vs. unfamiliar staff. (continued on next page)	· Critical Care on call · Consider MS RN on call	· Send float staff to other areas · Consider financial Incentives if needed · Request additional staff from all departments to perform needed duties	· Assure financial incentives in place, call off duty staff and staff on PTO · Identify clinical staff who typically work in other roles for potential deployments (Wound Care, Education, Occ. Health, etc.) · Managers in-house – called back from PTO, days off · Open "labor poor"	· Consider mandatory overtime. · Utilizing nursing managers in bedside care

PART 2 – INTERVENTIONS

For every criteria there must be a "call to action" or intervention.

These are the required responses to achieve success in reducing the status to the next lower level.

Status:	GREEN Contingency	YELLOW Contingency	ORANGE Surge Plan	RED Crisis Care
Definition:	Staffing, resources and bed availability match patient needs and there is ease in collaboration between all departments.	A state of early triggers identifying a need to initiate early interventions to avoid escalation and meet patient demand.	Escalating demand without available capacity and/or resources. Aggressive action is required to avoid system overload and gridlock	Implementation of Rapid Influx of Patient Diversion Policy is required. Will take many hours of intervention, perhaps days, to return to equilibrium.
	INTERVENTIONS	**INTERVENTIONS**	**INTERVENTIONS**	**INTERVENTIONS**
Employees/Staffing, continued	Fully staffed	- Couriers - Runners - Locate and send/deliver equipment/supplies - Trash emptying - Linen restocking - Passing trays - Calls to families to pick up patients - Let patients know reason for delay and expected time of service - Answer patient call lights and provide info. - Answering phones - Receiving and communicating FAXes, printed results - Misc. clerical functions - Consider additional registration/operator help	- Facilitate labor pool - Call in staff to assist - Ancillary clinical staff to assist with nursing/needs - Patient transport (use of non-clinical staff and volunteers) - IS available in house - Engineering available in house - Bio-med available in house - Formal communication to patients that there will be delays (use PR to assist with families and media) - Alert dietary department managers of impending increase demand for patients, families, and staff	- AS DETERMINED PER DISASTER PLAN/EMERGENCY OPERATIONS PLAN