



POLICY & PROCEDURE

SECTION: LEADERSHIP	NUMBER:	LD.159
TITLE: SURGE CAPACITY	ORIGINATED:	7/06
	REVISED:	2/08, 4/10, 8/13, 8/17
	REVIEWED:	
APPROVALS		
Responsible Person: Director, Emergency Department	Approved by: AVP Patient Care Services Date: 9/17, 1/20 Approved by: VP Quality and Safety Date: 9/17, 1/20	Approved by: Board of Trustees Date: 3/08, 6/10, 10/13, 9/17, 1/20

I. Applies to:

All Hospital Personnel.

II. Purpose:

The Surge Capacity policy shall describe the response procedures to follow for Level V in the event of rapid influx of patients in which all available resources are maximized, previous diversion/saturation efforts taken are ineffective, and patient care requirements exceed available Emergency Department (ED) resources. External/Internal Disaster Plan can be initiated. This can include an emergency health crisis or pandemic event. Communication of plan and oversight of responsibilities is established.

III. Policy:

- A. In the event Level V criteria is met, RCH shall address emergency staffing needs and increased demand for isolation wards, ICU beds, assisted ventilation services, and consumable and durable medical supplies. Activation of External/Internal Disaster Plan is considered.
- B. Level V emergency response procedures include the following:
 - 1. Assessing adequacy of current capabilities
 - 2. Support critical hospital services
 - 3. Reallocating resources
 - 4. Curtailing access and services
 - 5. Obtaining additional resources from outside of the community
 - 6. Diversion of non-critical patients to alternative care sites
- C. The Administrator on Call/designee assumes oversight responsibilities for activating the Emergency Operations Plan and directs actions to be taken. For activation of Disaster Plan, see Emergency Operations Plan policy.

IV. Procedure:

Level V Procedures to Support Critical Services Level V

Definition:

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1. Multi-incident victims arriving via ambulance.
2. No inpatient beds are available.
3. No routine temporary placement areas are available.
4. Bed Capacity exceeds available ED resources. All available resources are maximized, previous diversion efforts taken are ineffective, and patient care requirements exceed available ED resources. Previous measures ineffective to decompress.
5. Unable to achieve minimal staffing.
6. Equipment, supplies, or other resources does not meet required need.
7. 50 or more patients are ED holds awaiting beds.
8. AMR wall time is greater than 120 minutes.
9. The EDWIN score will be used to measure ED “overcrowding”:

Scale:

- **0 - 1.5 = Active, but manageable**
- 1.5 - 2 = Very busy, but not overcrowded**
- 2+ = Extremely busy and severely overcrowded**

Initiating Emergency Management Plan

1. The Administrative Liaison will meet with the ED Director on current status of ED waiting room back log, patients holding for inpatient beds and turn around time. The Administrative Liaison will report to the Administrator on Call/designee on the status of the situation.
2. The Administrator on Call/designee will evaluate the situation to determine whether the Emergency Operations Plan will be activated. If the plan is to be activated, actions to be taken will be directed by the Administrator on Call/ designee in charge of the Command Center.
3. Until Incident Command staff are in place, the Administrative Liaison will have oversight of Incident Command functions. The Administrative Liaison will determine if the Labor pool will be opened and assign additional help to the ED as needed.

Communication

1. For communication of Emergency Operations Plan, see Emergency Operations Plan policy.
2. Live process notification maybe be utilized to communicate the emergency management plan to all hospital leadership and medical staff.

Support Critical Hospital Services / Reallocating Resources

The Incident Commander will:

1. Assess adequacy of current capabilities including personnel, facility, beds, and supplies.
2. Mobilize staff, providers, and additional resources to the ED and essential patient care areas.
3. Notify the Medical Care Branch Director for availability of physicians to respond to ED as indicated.

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4. Create a list of non-essential positions that can be reassigned to support critical hospital services (e.g., administrative staff, physical/occupational therapy, education). Consider using trainees (e.g., medical and nursing students) for indirect patient care activities (answering phones, transport of patients, obtaining supplies).
5. Increase cross training of personnel to provide support to ED and essential patient-care areas.
6. Managers or charge nurses will call in additional staff as needed via the callback system. Reassign personnel at high risk for complications due to pandemic event (e.g., pregnant women, immuno-compromised persons) to low-risk duties (e.g., non-influenza patient care, administrative duties that do not involve patient care).
7. Identify areas of the facility per infection control guidelines that could be vacated for use in cohorting patients.
8. Consider opening holding areas on units for pending admissions in order to free up ED beds.
9. Track bed availability including ICU beds and ventilator capability, when patient care requirements exceed available ED resources. May use FluSurge software (<http://www.cdc.gov/flu/flusurge.htm>) from CDC to estimate the potential impact of a pandemic event on resources for staffed beds (both overall and ICU) and ventilators for RCH.
10. Evaluation of current status of beds, personnel, and supplies against what is needed and what is continuous until the bed capacity issue is resolved, at which point staff return to their units. This will continue to be reviewed no less than twice daily by the Administrative Liaison at the bed huddle meetings.
11. Estimated patient capacity for RCH is 478 regular beds. See census summary for breakdown of beds.
12. For additional pandemic plan, see IC 402 "Emerging Respiratory Viruses"
13. See attachment "A" for summary table.

Curtailing Access and Services

1. Consider exercising strict control of access to and from the hospital and diversion of ambulatory patients to alternate care sites within or outside the hospital (e.g., hospital cafeteria, nearby school) where lower level care can be provided. The emergency department should be protected in order to care for more critical patients.
2. Consider only lifesaving surgeries to be performed. Defer elective admissions and procedures, including elective surgery and non-emergent outpatient procedures. Patients may be transferred to other facilities or alternative care sites as the incident dictates. Stable patients may be discharged home if appropriate.
3. Review admission procedures and streamline them as needed to limit the number of patient encounters in the ED (e.g., the transfer center, direct admission to an inpatient bed). Admissions to the hospital are limited to those who require critical services obtainable only through hospital care.

Obtaining External Resources

1. Establish contact with local and state health departments to achieve adequate staffing including defining when an "emergency staffing crisis" can be declared. Discuss staffing options for recruiting staff from different hospitals and/or regions, or federal facilities and

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rapid credentialing of healthcare professionals with out-of-state licenses. Discuss how bed availability, including ICU beds and ventilators, will be tracked during a pandemic.

2. Consider recruiting healthcare personnel from other healthcare settings (e.g., medical offices and day-surgery centers) with community health partners' involvement. Consider recruiting retired healthcare personnel and volunteers.
3. Implement these arrangements with community health partners through Mutual Aid Agreements (MAAs) or memoranda of Understanding/Agreement (MOU/As).
4. Consult with hospital licensing agencies on expanding bed capacity. These efforts should take into account the need to provide staff and medical equipment and supplies to care for the occupant of each additional hospital bed.
5. Develop Mutual Aid Agreements (MAAs) or Memoranda of Understanding/Agreement (MOU/As) with other local facilities that can accept non-pandemic patients who do not need critical care.
6. Work with local home healthcare agencies to increase home health staff to reduce hospital admissions during the emergency.
7. Mobilize public and private transport, including public and school buses, taxis, and limousines as needed.
8. Consult with state and local health departments on their roles in determining policies for hospital admissions and transfers.
9. Discuss with healthcare regulators when an "altered Standards of Care in Mass Casualty Events" will be invoked (<http://www.ahrq.gov/research/altstand/>). If invoked, see altered Standards of Care guidelines.
10. Legal Counsel to identify and resolve any insurance and liability issues related to the use of non-facility staff and review credentialing practices.

Consumable and Durable Resources

1. For consumable and durable resources, see Consumable and Durable Supply policy.
2. For resources and assets, see Emergency Operations Plan.

Diversion of Non-Critical Patients to Alternative Care Sites

1. If diversion of non-critical patient to alternative care sites is necessary, the Administrative Liaison will work with the Transfer Center who will be responsible for inter-facility communication between the hospital and the designated alternate care site, and for retaining logs of which patients were transferred to and from an alternate care site. (e.g., school gymnasiums, armories, convention centers). (Also see <http://www.ahrq.gov/research/altsites.htm>.)
2. The selection of alternative care sites during a pandemic event will be based on the following infection control and patient care needs:
 - a) Bed capacity and spatial separation of patients.
 - b) Facilities and supplies for hand hygiene.
 - c) Lavatory and shower capacity for large numbers of patients.
 - d) Food services (refrigeration, food handling, and preparation).
 - e) Medical services.
 - f) Staffing for patient care and support services.
 - g) PPE supplies.

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- h) Cleaning/disinfection supplies.
- 3. Alternative sites with the hospital for patient care are: holding areas, outpatient unit.
- 4. Potential alternate sites on Hospital campus for patient care are: Raincross Urgent Care, Professional Medical Building.
- 5. Alternates sites off Hospital Campus for patient care will be coordinated by the County Emergency Medical Services.

Emergency Department

- 1. If the Emergency Department is overwhelmed with patients seeking care during pandemic events, consider Alternate Triage Protocols including implementing phone triage to discourage unnecessary E.D./outpatient department visits. Triage to a medical office or other non-urgent facility.
- 2. Limit number of visitors to those essential for patient support. Screen all visitors at point of entry to facility for signs and symptoms of influenza or other pandemic event. Limit points of entry and exit to and from the facility; assign clinical staff to entry screening.
- 3. Ambulatory patients may be redirected to alternate care sites within or outside of the hospital as approved by the CEO or Sr. VP/Patient Care Services CNO/Designee, such as the hospital cafeteria or a nearby school, to be re-triaged and receive care as needed.

Other Department Responsibilities

See attached table of other department responsibilities at Level V status.

Mortuary Issues

- 1. To prepare for the possibility of mass fatalities during a pandemic event:
 - a) Assess current capacity for refrigeration of deceased persons.
 - b) Use mortality estimates to determine the scope and volume of supplies (e.g., body bags) needed to handle an increased number of deceased persons.
 - c) Discuss mass fatality plans including identifying temporary morgue sites and supply sources for post mortem materials with local and state health officials and medical examiners.

Demobilization

For decision to demobilize, criteria for demobilizing, and communication to staff and appropriate external agencies of decision to demobilize, see Emergency Management Planning policy.

V. Exceptions/Clinical Alerts:

None

VI. Documentation:

None

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VII. References:

- A. CDPH National Pandemic Influenza Preparedness Plan. Annex 1: State and Local Health Departments Guidance.
- B. US Department of Health and Human Services; HHS Pandemic Influenza Plan November 2005.
- C. Emergency Operations Plan (EOP) Reference #2001



ED SURGE CHECKLIST

Date and Time of Surge Plan Activation:

ED Census :	
# of Ambulance Patients Holding:	
Admissions holding in the department:	Total ___ ICU ___ SD ___ Tele ___ MS ___
Number of critical patients in the department:	
Potential ED Discharges:	Dispositions _____ Re-Evals _____
Number of patients in RC:	
Number of patients in WR's:	
# Radiology pending:	
# CTs pending:	
# Labs pending:	
# patients awaiting Triage	
# Unassigned patients:	
Open to Transfers?	
EDWIN Score at the time of initiation:	
Staffing:	<input type="checkbox"/> Fully Staffed <input type="checkbox"/> # of Hold Nurses _____ <input type="checkbox"/> Short RNs X _____ <input type="checkbox"/> Short Techs X _____ <input type="checkbox"/> Short Provider X _____
Who was notified?	<input type="checkbox"/> ED Manager <input type="checkbox"/> ED Director <input type="checkbox"/> ED Medical Director <input type="checkbox"/> House Supervisor (Liaison)

Notes:

Activation of ED Surge

1. ED Director fills out surge activation checklist and submits it to nurse liaisons
2. Nurse liaisons notify Administrator on Call (AOC) and alert hospital of surge activation via iMobile communication
 - a. Surge notification will include the following
 - i. Level of surge
 - ii. Time of surge activation
 - iii. ED census
 - iv. ED holds
 - v. Request for support from specific departments, if needed (ex. lab, radiology, EVS)
 - b. Who is notified?
 - i. AOC and Administration
 - ii. Emergency Department
 - iii. Radiology
 - iv. Laboratory
 - v. EVS
 - vi. Telemetry
 - vii. ICU
3. Departments impacted by surge are to follow respective actions defined in surge plan

Guidelines to Activate a Tiered Response Plan

POLICY STATEMENT: The Surge Capacity policy shall describe the response procedures to follow for Level V in the event of rapid influx of patients in which all available resources are maximized, previous diversion/saturation efforts taken are ineffective, and patient care requirements exceed available ED resources. External/Internal Disaster Plan can be initiated. This can include an emergency health crisis or pandemic event. Communication of plan and oversight of responsibilities is established. The Emergency Department Work Index Score (EDWIN) is utilized in daily operations and will be conveyed in a coordinated manner to ensure prompt attention and response to the various levels. (The information is aligned, contributes to and is integrated with the facility-wide saturation and bed management plans.)

LEVEL 1 - GREEN	LEVEL 2 - YELLOW	LEVEL 3 - ORANGE	LEVEL 4 - RED	LEVEL 5- BLACK
ED EDWIN Score < 1.5 ED Census >80 ED Holds <10 RAD Exams<13 CT Exams<10 Lab pending draws <10	ED EDWIN Score 1.5-1.75 ED Census >100 ED Holds >15 RAD Exams>15 CT Exams>10 Lab pending draws >10	ED EDWIN Score 1.75-2.0 ED Census >110 ED Holds >20 RAD Exams>18 CT Exams>13 Lab pending draws >20	ED EDWIN Score >2.0 ED Census >125 ED Holds >25 RAD Exams>25 CT Exams>15 Lab pending draws >30	
Throughput: <ul style="list-style-type: none"> Goals are met or exceeded, day to day operations within POD system are optimal. 	Throughput: <ul style="list-style-type: none"> >10 patients awaiting triage. >5 ambulances holding the wall. >7 patients that are unassigned to providers. Holding 10+ admitted patients or 3 ICU WITHOUT a plan for bed assignment in the next 3 hours. 	Throughput: <ul style="list-style-type: none"> >15 patients awaiting triage. >7 ambulances holding the wall. >10 patients that are unassigned to providers. Holding 15+ admitted patients or 3 ICU WITHOUT a plan for bed assignment in the next 3 hours. 	Throughput: <ul style="list-style-type: none"> >20 patients awaiting triage. >10 ambulances holding the wall. >13 patients that are unassigned to providers. Holding 20+ admitted patients or 3 ICU WITHOUT a plan for bed assignment in the next 3 hours. 	Follow internal disaster policy ONLY at direction of Senior Leadership

Staffing: <ul style="list-style-type: none"> Clinical, ancillary and support staffing as defined by matrix and or staffing plan. 	Staffing: <ul style="list-style-type: none"> RN: PT ratio continues 4:1 including utilization of 2nd Charge (C2)/Supervisor and ED Resource RN. Forecast of critical staffing level and call in additional staffing. Contact CT, X-Ray and Lab for additional resources if above tier yellow criteria is met. 	Staffing: <ul style="list-style-type: none"> RN: PT ratio continues 4:1 including utilization of additional resource RN's to be called in, Supervisor in staffing. Forecast of critical staffing level and call in additional staffing. Contact CT, X-Ray and Lab for additional resources if above tier orange criteria is met. 	Staffing: <ul style="list-style-type: none"> Acuity is BEYOND staffing capability. RN: PT ratio continues 4:1 including utilization of additional resource RN's to be called in, Supervisor in staffing. ED on call manager called in to assist with throughput and act as supervisor. Contact CT, X-Ray and Lab for additional resources if above tier red criteria is met. 	
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Activation

ED CHARGE RN <ul style="list-style-type: none"> ED operations as normal. 	ED CHARGE RN/Supervisor <ul style="list-style-type: none"> Contact Nursing House Supervisor, ED Supervisor, ED Manager & Director via I-mobile, inform of surge level yellow and provide them with surge checklist information. Text ED group to Swarm Triage and/or ambulance bay & validate response. Text ED attending physicians informing them of unassigned patients. Ask to rapidly evaluate and discharge patients (If no response within 10 minutes, escalate to MGR). Call or Text Nursing House Supervisor and confirm actions to address holds. 	ED CHARGE RN / ED LEADERSHIP <ul style="list-style-type: none"> Contact Nursing House Supervisor, ED Supervisor, ED Manager & Director via I-mobile, inform them of surge level orange and provide them with surge checklist information. Evaluate staffing and consider activation of S1 & S2. Call EVS Supervisor to setup surge areas. If staffing cannot support S1 & S2, expand into WR1 & WR2. Text ED group to Swarm Triage and/or ambulance bay & validate response. Text ED attending physicians informing them of unassigned patients. Ask to rapidly evaluate and discharge patients (If no response within 10 minutes, escalate to MGR). Call or Text Nursing House Supervisor and confirm actions to address holds. 	ED CHARGE RN / ED LEADERSHIP <ul style="list-style-type: none"> Contact Nursing House Supervisor, ED Supervisor, ED Manager & Director via I-mobile, inform them of surge level red and provide them with surge checklist information. Evaluate staffing and consider activation of S1 to S4. Call EVS Supervisor to setup surge areas. Update Surge Checklist and Re-inform Nursing House Supervisor and Departmental Leadership of status every hour. Text ED group to Swarm Triage and/or ambulance bay & validate response. Text ED attending physicians informing them of unassigned patients. Ask to rapidly evaluate and discharge patients (If no response within 5 minutes, escalate to ED Director and Medical Director). Call or Text Nursing House Supervisor and confirm actions to address holds. Notify ED Medical director to evaluate the need for additional providers Consolidate holds into H1 – H6. 	