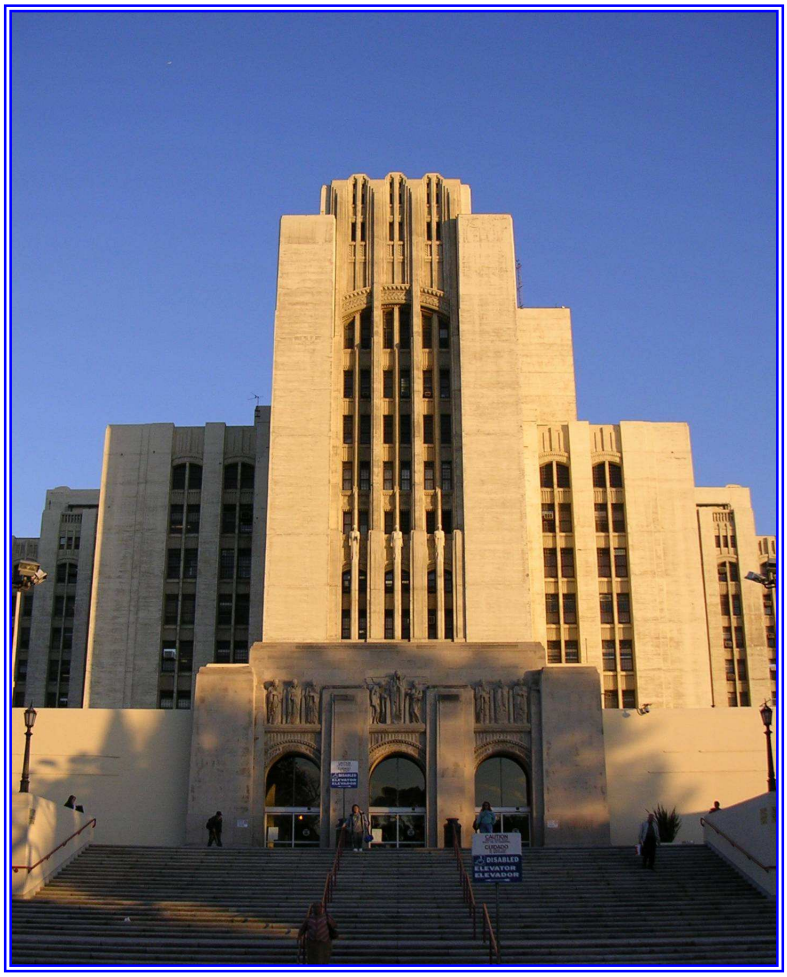
LAC+USC Medical Center



Surge Plan

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The Surge Plan

SUBJECT:

The LAC+USC Medical Center Healthcare Surge Plan.

DEPARTMENTS:

Hospital wide.

PURPOSE:

To establish a system-wide approach to healthcare surge response capability in order to effectively and appropriately accommodate patient needs, manage healthcare emergencies, and mitigate disasters.

POLICY:

The plan provides a methodology to maximize healthcare capabilities in response to patient influx by encompassing a continuity of operations from open hospital status, to full capacity, to overcrowding, and to surge capacity.

The plan is not an emergency operations plan. It is a daily operational plan, elements of which are an integral part of the overall emergency operation plan.

The plan will utilize an objective measure of Emergency Department and Hospital Overcrowding that will automatically dictate a network response. This utility is designed for rapid notification and plan implementation No further administrative approval will be required since, as a Network Policy, the approval is inherent.

The plan incorporates new and existing operational policies and procedures to provide a cogent and complete reference tool. It references and abides by existing regulations, standards, and guidelines for healthcare surge and emergency (disaster) preparedness.

The plan provides mandatory response guidelines that are to be adhered to by all referenced individuals and departments involved in the response.

The plan is not static but dynamic. It designed to be updated, improved, and refined to best maximize the delivery of patient care through all levels of patient surge and fluxing hospital capacity.

POLICY REFERENCES:

CA DHS All Facilities Letter 04-28: Increased Patient Accommodations Due To Seasonal or Unexpected High Influx of Patients, California DHS.
CA DHS All Facilities Letter 05-04: Licensed Nurse-to-Patient Ratio, California DHS.
California Code and Regulations Title 22: 70809, 70217.
LAC DHS Facility Letter 11-10-03: Ref. No. 304, Guidelines for Acceptance of Emergency Department Transfers of Patients with an Emergency Medical Condition.
LAC DHS Facility Letter 11-20-03: Revised procedure for Transfer of Emergency Department Patients to County Operated Facilities.
LAC DHS Reference No. 304: Guidelines for Acceptance of ED transfer of Patients with an Emergency Medical Condition.
LAC DHS Reference No. 305: Guidelines for Acceptance of ED transfer of Patients without an Emergency Medical Condition.
LAC DHS Reference No. 306: Guidelines for Acceptance of Stable Inpatient Transfers.

LAC DHS Policy 373.1: Emergency Transfer Authorization County Code 2.76.53.
LAC DHS Policy 503: Guidelines for Hospitals Requesting Diversion of ALS Patients.
LAC DHS Policy 503.1: Hospital Diversion Request Requirements for ED Saturation.
LAC DHS Policy 911: Role of DHS Employees in the Event of an Emergency.
LAC+USC Healthcare Network Attending Staff Manual.
LAC+USC Healthcare Network Policy 134: Increased Patient Accommodations Due to High Influx of Patients.
LAC+USC Healthcare Network Policy 705: Transfer of Patients to LAC+USC Healthcare Network.
LAC+USC Healthcare Network Policy 705.1: Transfer of Patients from the Network to Another Facility.
LAC+USC Healthcare Network Policy 706.1: Guidelines for Acceptance of Patients with an Emergency Medical Condition.
LAC+USC Healthcare Network Policy 706.2: Guidelines for Acceptance of Patients without an Emergency Medical Condition.
LAC+USC Healthcare Network Policy 706.3: Guidelines for Acceptance of Stable Inpatients to LAC+USC Medical Center.
LAC+USC Healthcare Network Pandemic Flu Plan: Plan for Management of Influx of People with Infectious Diseases.

DEFINITIONS:

Acute Care Unit (ACU): non-monitored inpatient ward beds, i.e. medical / surgical ward beds.

Disaster: an event that exceeds the capabilities of the response.

1. A disaster exists when need exceeds resources (Disaster = Needs > Resources).
2. A disaster exists when the number of patients and/or severity of illness or injury are such that normal daily operations are no longer possible.[1]

ED Overcrowding: a situation in which the identified need for emergency services outstrips available resources in the ED.[2]

Healthcare Emergency: an unpredictable or unavoidable occurrence at unscheduled or unpredictable intervals relating to healthcare delivery requiring immediate medical interventions and care.[3]

Mass Casualty Incident (MCI): an event that exceeds the healthcare capabilities of the response. An MCI exists when healthcare needs exceed resources.[1]

NEDOCS: National Emergency Department Overcrowding Scale.

Surge: a sizeable increase in demand for resources compared with a baseline demand. Components include Influx (volume, rate), Event (type, scale, duration), and Resource Demand (consumption, degradation).

Surge Capacity: the maximum potential delivery of required resources either through augmentation or modification of resource management and allocation. Components include System (integrity), Space (size, quality), Staff (numbers, skill), and Supplies (volume, quality).

Surge Response Capability: the ability of Surge Capacity (the resources that can be made available) to accommodate the Surge (demand for resources).[4]

PROCEDURE:

A. Response Threshold

The NEDOCS will be used as an objective measure of emergency department and hospital overcrowding. Studies have demonstrated that this system is an effective measure of overcrowding including large academic centers that are frequently overcrowded.[5 6 7 8 9 10] The calculator uses variables found to be statistically significant in emergency department overcrowding, and the "score" corresponds to a given level of operational capacity.

The calculator is available at http://hsc.unm.edu/emermed/nedocs_fin.shtml, and uses the equation:

$$\text{Score} = -20 + 85.8(c/a) + 600(f/b) + 13.4\,(d) + 0.93(e) + 5.64\,(g)$$

The institutional constants are:
a) Number of ED Beds.
b) Number of Hospital Beds.

The situational variables are:
c) Total Patients in the ED.
d) Number of Respirators in Use in the ED.
e) Longest Admit Time (in hours).
f) Total Admits in the ED.
g) Wait Time for the Last Patient Called (from triage).

ED and hospital beds are the budgeted number of beds available for patient care. Total patients in the ED include normal, doubled-up, and hallway beds, and those undergoing work-ups in chairs, triage, waiting room, etc. If using the website calculator, the score is displayed as 0 – 200 (the upper limit of the calculator is 200 even though the calculation may be > 200). The corresponding operational capacity will be interpreted as follows:

Overcrowding Scale					
NEDOCS Score	0 – 50	51-100	101-140	141-180	> 180
Condition	Not Busy	Busy	Overcrowded	Severely Overcrowded	Dangerously Overcrowded

It should be noted that the published NEDOCS has six levels and differs as follows: "Not Busy" (Green) is 0-20, "Busy" (Light Green) is 21-60, "Extremely Busy" (Yellow) is 61-100. For our purposes, these 3 levels are consolidated to the 2 levels as shown above. The total range for these combined levels remains the same. Since we are a large institution with significant capability, that extra delineation will not change operations.

As standard procedure, the ED will assess conditions every 2 hours. The NEDOC score will be calculated. If the level changes, the ED will use the Emergency Notification System to alert the appropriate, pre-designated personnel. A notification matrix will be established for this purpose and will include those components of Hospital Administration, Nursing, Medical Staff, and Ancillary Services that require notification and / or are an integral part of the response. The appropriate personnel are, thus, notified. Approval for proceeding with the mandated response is inherently given. The Medical Center will automatically respond with the appropriate intervention as described below.

Conditions that will supersede the calculator include a medical, trauma, or CBRNE Mass Casualty Event (MCE) or an internal/external disaster in which case the status will be elevated to BLACK until that time that the event has resolved and the network has returned to normal operations.

B. Response Matrix

Each level corresponds to and necessitates an institutional response with respect to systems (i.e. functional and departmental operations), space (bed capacity, utilization, and conversion), staff (responsibilities and operations), and supplies. As the overcrowding increases, the degree of response escalates to prevent or mitigate further overcrowding and the consequences of such. Response guidelines will continue into the next level unless a change is specified.

The first level is Green (“Not Busy”). The level of overcrowding is self-explanatory. This level requires standard operational procedures to be in effect, elements of which are to emphasize their importance in maximizing efficiency on a routine basis in order to improve hospital throughput which will decrease the occurrence of ED and hospital overcrowding, and, ultimately, improve patient care. The second level is Yellow (“Busy”). Since this is a large institution with significant capacity, little changes in the guidelines. The third level is Orange (“Overcrowded”) which is analogous to being closed to ED Saturation. The fourth level is Red (“Severely Overcrowded”) which is analogous to Code Overload. These terms, however, will no longer be used to describe the level of overcrowding or the level of response. The fifth level is Black (“Dangerously Overcrowded”). This is the high extreme of overcrowding. Additionally, it is used for MCI’s and internal/external disasters.

The following table details the response. The colored bar on the left indicates the level. The body details the specifics.

	RESPONSE
NOT BUSY	**DEM RESPONSE** **System** 1. Standard operating procedures in effect. 2. EMS a. ED Diversion Status: Open. b. ED Charge Nurse / MICN will update ReddiNet as needed. 3. Fast Track of appropriate triage patients to UADC or UADC Appointment as indicated. 4. Area Attendings and Nurse Managers continually round to evaluate the work load and productivity of the areas and redistribute patients and staff as indicated. 5. Continual and periodic physician assessment of triage patients with work-up and treatment initiated as necessary. 6. ED Observation Area (1200) utilized for appropriate patients to make available acute treatment beds. **Space, Staff, Supplies** 1. Standard operating procedures in effect. --- **MEDICAL CENTER RESPONSE** **System** 1. Standard operating procedures in effect. 2. Admissions a. Inpatient beds assigned per protocol. b. Service restrictions authorized. i. Specialty services consulted for appropriate patient admits. ii. Specialty services will take such patients on their service ward if a bed is available. c. The ED Attending has authority to admit patients to any service of the hospital in accordance with the general policies of the hospital and its various departments. d. The ED Attending can determine the appropriate level of inpatient care required for an admission. i. If and when the hospital establishes official guidelines delineating patient criteria for specific inpatient units, these guidelines will be evidence-based and reflect accepted standards of care.

3. Transfers: See *PFM Guidelines and Transfer Protocols* for detailed description. Protocols include:

    a. The PFM will evaluate and arrange all EMTALA transfers through the MAC per DHS Medical Alert Center Reference No. 304-6.

    b. NO hospital physician shall accept a transfer request from an outside physician. A county physician who receives a call directly from a private hospital physician to present a transfer request should advise the private hospital physician to coordinate the transfer through the MAC.

    c. The MAC will contact the Patient Flow Manager at potential receiving hospitals to determine hospital capacity and, if accepted, arrange transfer. See MAC PFM Algorithm.

    d. If the Hospital has capacity, the PFM will present the transfer request to the Attending (or Senior Resident in consultation with the Attending) of the appropriate specialty service. If the transfer is accepted, the patient will be assigned to that physician / team accepting the patient. The open bed will be assigned to and held for that patient.

    e. Upon arrival of the transferred patient to LAC+USC:
        i. ED to ED transfers will come to the ED.

        ii. ED to IP and IP to IP transfers:
            a. Will NOT go through the ED. The one exception is the Orthopedic patient.
            b. Will be taken directly to the admitting nursing unit, evaluation clinic (OMF, ENT, Ophthalmology, Urology, Burns), or 1434 dependent on the clinical service and the patient's medical condition.

        iii. The accepting team will be the primary team assigned to the patient and will be immediately responsible for the patient's care upon the patient's arrival to the hospital.
            a. If, when the transfer arrives, the accepting physician / team who were on-call are no longer at the hospital, the responsibility for that patient's care is the current physician / team on-call for that service.
            b. If the accepting team determines that the patient's condition requires care by additional services, these specialties will be consulted.
            c. If the accepting team determines that the patient's condition requires care by a different service, this specialty shall be consulted and, if necessary, care transferred per guidelines set forth in the Attending Staff Manual.

4. In-patient Medical Staff and Specialty Service Operations

    a. Inpatient Rounds: Early rounding and discharges are necessary to maximize the efficiency of hospital throughput and maintain bed availability. Therefore, time of inpatient rounds and discharges will be adhered to by all inpatient services and to include:
        i. Inpatient pre-rounds by 0700.
        ii. Inpatient attending rounds by 0900.
        iii. Morning discharge orders by 1100.

b. Discharge Waiting Unit (DWU):
    i. To be utilized by inpatient services for ALL appropriate discharges, i.e. the DWU is open 0600-2330 and criteria includes self-sufficient and stable patients without the need for contact isolation.
    ii. The simple orders are as follows: "D/C IV, D/C home, D/C to Discharge Waiting Unit".

c. IM Hospitalist: In order to maximize the effectiveness of the Hospitalist, the Internal Medicine and Medical Staff Office are to provide a detailed Hospitalist work schedule and job description to be included in this document and should include, but not be limited to:
    i. Direct care of adult non-surgical hospitalized patients.
    ii. Staffing the Med Consult Resident for hospitalized non-medical patient consults, the short stay unit, and ED admissions.
    iii. Supervision of on-call ward teams to streamline admissions, evaluation, treatment, procedures, and discharges.
        1. Conduct evening rounds with ward teams. These should be brief, problem-based bedside rounds to address urgent patient care issues.
        2. Supervise and train on-call ward teams in specialty activities and procedures.
        3. Supervise on-call ward teams to expedite the evaluation, treatment, and plan for new admissions.
        4. Reassess ward patients and their status for potential discharges.
    iv. Coordinate and assist in streamlining ED admissions by identifying appropriate discharges and identifying empty beds.
    v. Assist ward teams in coordinating the patient care activities of nursing and support staff.
    vi. Assist ward teams in coordinating specialty care as required.

d. Emergency Consults from Specialty Services.
    i. Specialty services must respond within 1 hour of request.
    ii. Specialty services must re-evaluate every 24 hours (at a minimum), those patients with active issues who remain in the ED awaiting admission.

5. Unit Operations: This category includes Acute Care Units (ACU), Intensive Care Units (CMA/PMA/ICU), Observation Areas (1202), Emergency Evaluation and Treatment Areas (ENT/OMF 4130, Ophthalmology/Urology 4628), Operating Rooms (OR), and Post-operative Area Rooms (PAR).
    a. Units will expeditiously process discharges and prepare bed for new occupancy.
    b. Units will not misrepresent bed status.
    c. Units may not refuse report from the ED.
    d. Units may not refuse an admission or transfer from the ED.
    e. Units will assist ED transport teams when patients are delivered to their respective units.
    f. Units may not transfer or return patients to the ED.

6. CMA/ICU-Specific Operations: see *PFM Guidelines* and *Full Capacity Protocol: CMA/ICU's* for detailed guidelines.

7. Diagnostic Services Operations
    a. Radiology:
        i. Cannot refuse imaging requests for emergency studies.
        ii. Must provide final Attending reads of emergency imaging studies within 2 hours of study completion 24/7/365.

Space

1. Standard operating procedures in effect.

Staff

1. Standard operating procedures in effect.

2. Ancillary Services
    a. The 1350 Separation & Admission Clerk Post shall be staffed 24/7/365.

3. Medical Staff
    a. For Attending Staff with dual obligations: if you are a County or USC physician primarily based at LAC+USC Medical Center or if you are the responsible Service Attending at a given time, then your primary obligation is to LAC+USC Medical Center and its patients.
        i. This mandates the physician to comply with these guidelines and to be physically present at the Medical Center to carry out such duties.
        ii. Prior arrangements with a physician's partners in an outside group should be made to allow for the performance of these duties.

4. Nursing Services
    a. Administration must staff "beds ahead". The HMO driven practice of staffing for beds as patients are admitted has contributed to the inpatient bed crisis. Administration will take pro-active measures to staff beds ahead, ensure open beds, and expeditiously receive admitted patients. This practice will decrease ED boarding of admitted patients and the poorer outcomes associated with such.

5. Diagnostic Services
    a. Radiology
        i. To staff technicians for Ultrasonography 24/7/365.
        ii. To staff technicians for CT to ensure that, at a minimum, 2 scanners are in operation 24/7/365.

Supplies

1. Standard operating procedures in effect.

2. Critical to the response capability of the ED is the proximity and availability of designated ED equipment.
    a. No Unit or Service shall sequester ED equipment for their own use.
    b. Any ED equipment found outside the ED will be returned to the department immediately.
    c. Such equipment includes and is not limited to gurneys, mechanical ventilators, bipap ventilators, monitors, defibrillators, transvenous pacemakers, intubation equipment, thoracotomy equipment, etc.

BUSY

DEM RESPONSE

System, Space, Staff, Supplies

1. No interval change.

MEDICAL CENTER RESPONSE

System

1. Admissions
    a. Specialty Services may reserve 1 female and 1 male bed per service.

Space, Staff, Supplies

1. No interval change.

OVERCROWDED

DEM RESPONSE

System

1. EMS
    a. ED Diversion Status: Closed.
    b. ED Charge Nurse / MICN will update the ReddiNet as needed.

2. Admissions
    a. The ED Area Attendings and NM / ANMs will prioritize admissions and submit this list to the ANO and Bed Control.
    b. This list will be updated every 2 hours.

3. Transfers
    a. ED Utilization Review Nurse to provide and encourage appropriate ED admissions the option of transferring to the dedicated wards at Olive-View and Rancho Los Amigos Medical Centers per-arranged DHS agreements.

Space, Staff, Supplies

1. No interval change.

MEDICAL CENTER RESPONSE

System

1. Admissions
    a. Specialty beds are not restricted for use.
        i. Utilize ALL staffed in-hospital beds (ACU and ICU).
        ii. The Primary Team assigned to the patients will be the appropriate service for the patient regardless of location.

2. Transfers
    a. The Inpatient Teams and Utilization Review to provide and encourage appropriate inpatients the option of transferring to the dedicated wards at Olive-View and Rancho Los Amigos Medical Centers per pre-arranged DHS agreements.

3. Bed Utilization

    a. The Bed Control Supervisor will:
        i. Verify current status and update Affinity every hour.

    b. The Service Chiefs, ANDAs, and NMs (business hours) or the MOD, Hospitalists, NOD, and ANO (after hours) will:
        i. Assure that inpatient teams (attending, residents, ward staff) have ordered and processed daily discharges.
        ii. Identify and assist with barriers to potential discharges including consults, social work, transportation, etc.

    c. The ANDAs and NMs (business hours) or NOD, ANO, and ANMs (after hours) will:
        i. Assure that all inpatient beds and their occupancy are accounted for and Affinity is appropriately update.

d. The ANDAs, NMs, and EVS Supervisor (business hours) or the NOD, ANO, and EVS Supervisor (after hours) will:
    i. Assure that open beds are cleaned and ready for occupancy.

e. The ANDAs, NMs, and ANO (business hours) or the NOD and ANO (after hours) will:
    i. Evaluate the status of beds closed due to administrative hold and re-open these beds.

f. The House Supervisor, Bed Coordinator, ANDAs, NMs, and Bed Control (during business hours) or the NOD, ANO, and Bed Control (after hours) will:
    i. Cohort appropriate specialty patients (e.g. Gynecology) to open additional ward beds. Appropriate patients (e.g. females) can then be admitted to this opened ward space.

Space

1. No interval change.

Staff

1. The ANDAs and NMs (business hours) or the NOD and ANO (after hours) will:
    a. Evaluate staffing (i.e. inpatient beds) and take appropriate measures to assure that all units are maximally staffed.

Supplies

1. No interval change.

SEVERELY OVERCROWDED

DEM RESPONSE

System

1. Transfers
    a. ED Utilization Review Nurse to coordinate with MAC for patient transfers out per County Code 2.76 (Emergency Transfer Authorization Guidelines).

Staff

1. DEM Float Residents will be called upon to assist with direct patient care in the ED.
    a. The Attendings will determine the appropriate area to assign the resident.
    b. They will work their shift until operations return to baseline and in accordance with appropriate duty hours
    c. The threshold is as follows:
        i. Senior Resident called in if triage patients > 60.
        ii. Junior Resident called in if triage patients > 80.

Space, Supplies

1. No interval change.

MEDICAL CENTER RESPONSE

System

1. Limited activation of Hospital Command Center.
    a. Business hours: CNDs, ANDAs, ICU Charge Nurse, Bed Control Supervisor, EVS Shift Supervisor, and DWU Supervisor to report to CP.
    b. After hours: House Supervisor, PFM, ICU Charge Nurse, ED NM, and EVS Shift Supervisor to report to CP.

2. Transfers
    a. The hospital is closed to transfers. Exceptions include County patients from Hawkins, Ingleside, and Metro per DHS policy.
    b. The DEM Administrator (business hours) or AOD (after hours) will submit the necessary documents to the MAC to declare Code Overload and request ED transfers to outside facilities according to County Code 2.76 (Emergency Transfer Authorization Guidelines).

3. In-patient Medical Staff and Specialty Service Operations
    a. Discharge and Transfer Rounds
        i. Service Attendings, Residents, and ANMs will review all patients and conduct discharge rounds. Emphasis is on early, appropriate, and expeditious discharge of patients.
        ii. The Attendings and ANMs will report these results to the House Supervisor within 2 hours of condition notification.
        iii. This process will be repeated every 8 hours if level of overcrowding remains at this level or above.

4. Implement the *Full Capacity Protocol: Acute Care Units.*

5. Implement the *Full Capacity Protocol: Intensive Care Units*.

Staff

1. Diagnostic Services:
    a. Radiology:
        i. To staff technicians for CT to ensure that ALL scanners are in operation.

Space, Supplies

1. No interval change.

DANGEROUSLY OVERCROWDED

DEM RESPONSE

System

1. Activate the *DEM Emergency Response Plan* as indicated.

2. Triage
    a. Triage of specialty-appropriate and stable patients directly to 4130 (ENT/OMF) and 4628 (Urology/Ophthalmology) emergency treatment areas.
    b. Triage of specialty-appropriate and stable patients directly to OPD, UADC, Women's Admitting Room, and Pediatric Emergency Room.
    c. MCI Triage protocols per #1.
    d. Surge Capacity Infection Control Triage per Pandemic Flu Plan and #1.

Space

1. Activate Auditorium and DRC Field Hospital for ED use per Medical Center Response below.

Staff

1. DEM Residents on an Elective, Administrative, or other County Facility Rotation will be called upon to assist with direct patient care in the ED.
    a. The Attendings will determine the appropriate area to assign the resident.
    b. Off-duty residents will respond as indicated in the DEM ERP.

Supplies

1. Refer to DEM ERP.

MEDICAL CENTER RESPONSE

System

1. Activate the Hospital Command Center utilizing the Hospital Incident Command System (HICS) and Emergency Operations Plan.

2. Activate *LAC+USC Healthcare Network Pandemic Flu Plan: Plan for Management of Influx of People with Infectious Diseases* as indicated.
    a. Capability to convert the entire 6700/6800/6900 and 8700/8800/8900 wards into negative pressure isolation.
    b. DRC Field Hospital for negative pressure isolation. 40 bed capacity.

Space

1. Ward 6800 (Research Ward)
    a. Open ward for ED admissions.
    b. Utilize existing nursing staff (USC staff).
    c. Capacity:
        i. Total active beds 19.
        ii. Beds available for daily surge: 6.
        iii. Beds available for catastrophic surge: 19.

2. Ward 5700 (Outpatient Surgery)
    a. Cancel elective outpatient surgeries, and open ward for ED admissions. Utilize existing nursing staff.
    b. Capacity: 6 monitored, 33 non-monitored, 2 pediatric (cribs).

3. Alternate Care Sites (ACS)

    a. The Command Post will be responsible for evaluating the feasibility of opening ACS's.

    b. If activated, the Command Post will simultaneously apply for permission from the state. Refer to Network Policy # 134 and its AFL 04-28 Attachments A and B.

    c. Potential Sites:
        i. Convert auditoriums (i.e. Main Auditorium 1642) and conference rooms.
            1. For use as an expanded Discharge Waiting Unit, staging and treatment area for overflow of Minor patients (walking wounded), or as an inpatient holding area or ward.
        ii. Convert outpatient procedure labs and treatment areas for inpatient use.
        iii. Consider the conversion of unused surgical suites (OR) and recovery rooms (PAR) for inpatient use during medical surge.
        iv. DRC Field Hospital:
            1. Activate DRC Field Hospital Plan as necessary (EMS Protocol in progress).
            2. Capacity 40 beds.
        v. Open shuttered hospitals (Units 1 and 4 after move to the Replacement Facility. Reference “Surge Hospitals: Providing Safe Care in Emergencies” (JCAHO).

4. Double inpatient room occupancy.
    a. Consider for catastrophic surge.
    b. Will require the retroactive flexing of OSHPD standards and State regulations.

Staff

1. Hospital Staff Responsibilities:
    a. <u>All Staff</u> (Administrative, Medical, Nursing, and Ancillary) will respond, be held-over, and/or called-in as needs dictate per their respective department's emergency operations plan for a healthcare emergency. Reference DHS Policy 911.

2. Medical Staff Responsibilities:

    a. All patients will be admitted to the appropriate service.

    b. Duty hours and patient caps will not apply and do not take precedence over patient care during healthcare emergencies.

    c. All conferences and lectures for inpatient, consult, diagnostic, and ancillary services are cancelled until return to baseline operations.

d. All efforts will be dedicated to patient care activities including, but not limited to:
    i. New and existing patient evaluation and treatment.
    ii. Coordinate and assist in the patient care activities of nursing and support staff as required.
    iii. Coordinate and assist in obtaining necessary ancillary / diagnostic studies, consults, procedures, etc.
    iv. Coordinate and assist in patient discharge and discharge planning (i.e. social work, placement, transportation, continuity follow-up, patient education, prescriptions, etc.).

e. If it is determined by the Service Chief, Team Attending / Fellow, or Hospitalist that the on-call services are overwhelmed such that patient and staff safety are at risk, they may require the pre-call, odd-day, off-day, or off-site residents to assist with admissions and direct patient care.

3. Navy Trauma Training Center (NTTC) Personnel:
    a. The NTTC Personnel not currently on shift will report to the ED Subcommand Post for assignments. These personnel are available 3 of 4 weeks per month.
    b. During a Trauma Surge, the NTTC Operating Room Team is capable of staffing an additional OR and assist in SICU patient care.

Supplies

1. Supplies
    a. Refer to DEM and Network ERP.

SUBJECT:

Patient Flow Manager Protocols (responsibilities, procedures, and guidelines).

PURPOSE:

To delineate the job description, duties, and operational procedures of the Patient Flow Manger (PFM) in order to optimize and standardize their operation.

POLICY:

The Patient Flow Management Program is staffed 24/7/365. The PFM is responsible for the following:

1. Coordination of all admissions to monitored beds.
2. Coordination of all transfers from outside facilities to the ED and Inpatient Units.
3. Update ReddiNet on hospital status and ReddiNet requests.
4. Respond to and participate in Code Blue events.

PROCEDURE:

A. PFM Shift Change Duties:

1. Report at change of shift shall include the following:
    a. Current hospital census.
    b. Current hospital issues i.e. closed beds, staffing, high profile patient, etc.
    c. Overcrowding status of ED and hospital.
    d. Status of monitored beds.
    e. Status of patients in monitored beds and their disposition (includes the status of transfers and discharges from monitored beds).
    f. Status of patients assigned to monitored beds but have not yet moved.
    g. List of patients requiring monitored beds from: ED, ACUs, PAR, clinics, and procedure areas.
    h. List of active MAC requests for transfer from other facilities (ED-ED, ED-IP, or IP-IP).
2. The PFM will make physical rounds on all monitored areas.
3. The PFM will call the Med Consult to update on monitored bed status and review the patients awaiting monitored beds.
4. The PFM will call the ED Attending to update on monitored bed status and review the patients awaiting monitored beds.

B. Monitoring CMA/ICU Bed Status

1. Updating CMA/ICU status:
    a. To facilitate admission, transfers, and discharges from monitored beds, the ANO will provide the PFMs with a methodology (tool) to determine accurately and in real-time:

i. Patients requiring admission to a monitored bed and their acuity.
ii. Patients currently in a monitored bed, their acuity, and disposition status

b. The PFM will review this information with the Critical Care Officer of the Day (CCO) per shift.

c. The PFM will review and update patient status with the Unit Nurse Managers (or Charge Nurse) at the following times, at a minimum:
i. 06:00
ii. 08:30
iii. 14:00
iv. 17:30
v. 22:00

d. The Unit Charge Nurse will communicate all bed changes between reports immediately to the PFM.

e. The PFM will review and update ED patients requiring CMA/ICU admission with the DEM Attending every 2 hours, at a minimum.

C. Disposition from CMA/ICU beds.

1. For a patient in a CMA/ICU with discharge or transfer orders written > 1 hour:
   a. The PFM calls the charge nurse to determine why the patient has not moved.
   b. If Bed Control has not been notified, the PFM will call them and give notification that the patient has such orders written and obtain a bed.
   c. If a bed is not available, the PFM will mark this as a priority on the PFM list and notify Bed Control of the placement priority.

2. For a patient that is able to transfer or discharge, but does not have such orders written:
   a. The PFM calls the primary team to obtain discharge/transfer orders.
   b. If the primary team agrees to write the orders, the PFM updates their list with action, date, time.
   c. If the primary team disagrees, the PFM will consult the team Attending.
      i. If the Attending agrees to the discharge/transfer, the Attending will inform the resident to write the orders.
      ii. If the Attending disagrees and there is a question as to whether the patient meets CMA/ICU criteria, the PFM will contact the CCO for dispute resolution. The CCO decision will be final.
      iii. If the primary team Attending does not respond within 1 hour for # 2.c. above, the CCO will be contacted.
   d. Note: ALL patients transferring out of the CMA/ICU to the ward will take priority over ED and clinic admissions.

D. Admission to CMA/ICU beds.

1. Patient prioritization.
   a. The ED Attending will prioritize the requests for monitored beds from the ED.
   b. The Medicine Consult and other Specialty Services will prioritize the requests for monitored beds from the ACUs, clinics, ORs, PARs, and procedure areas.
   c. The PFM will review and prioritize all requests.
   d. If there is a question regarding the prioritizations, the PFM will consult the ED Attending.

e. If there is any disagreement with the patient priority the PFM and the Services, the PFM will call the CCO. The decision of the CCO is final.

2. Scenarios:

a. Bed is available on an appropriate service's monitored unit.
   i. PFM notifies the requesting physician.
   ii. PFM notifies bed control with patient information and reserves the bed.
   iii. PFM notifies charge nurse on the unit and the physician/nurse where the patient is currently located with bed and team assignment information.

b. Bed is available, but not on another service's unit.

   i. If the NEDOCS level is YELLOW or below, specialty services can reserve at least 1 bed.
      1. PFM calls that service's physician and explains the need to place a patient in the available bed.
      2. If this physician agrees, proceed as in # 2.a.i. above.
      3. If the requesting physician refuses to board patient to the off-service unit, their Attending will be contacted.
      4. In any disagreement about placement, the PFM will call the CCO. The decision of the CCO is final.

   ii. If the NEDOCS level is ORANGE or above, specialty services cannot reserve beds.
      1. All attempts will be made to admit patients to the appropriate specialty CMA/ICU. If that area cannot accommodate the patient due to no capacity, the patient will be admitted to the next appropriate CMA/ICU.
      2. PFM will notify the physician of the service with the open monitored bed to inform them that an off-service patient will be boarding on their unit.
      3. Proceed as in # 2.a.i. above.

c. Note:
   i. All CMA/ICU patients will be admitted to the appropriate Critical Care Specialty Team regardless of location.
   ii. ALL patient admissions (or transfers) to a CMA/ICU bed will be made through the PFM who will prioritize and coordinate these admissions.
      1. When medically necessary (so that patient care is not compromised), admissions to the CMA/ICU can be made without this notification.
   iii. Receiving units only need PFM approval to accept the patient admission.

E. Transfers from outside facilities.

1. Definitions:

a. EMTALA: A participating hospital that has the specialized capabilities or facilities (including, but not limited to, burn units, shock trauma, neonatal care, or regional referral center in a rural area) may not refuse to accept from a referring hospital within the boundaries of the United States an appropriate transfer of an individual who requires specialized capabilities or facilities if the receiving hospital has the capacity to treat the individual.

b. Emergency Medical Condition (as defined by EMTALA):
    i. A medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain, psychiatric disturbances, and/or symptoms of substance abuse) such that the absence of immediate medical attention could reasonably be expected to result in:
        1. Placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy; or
        2. Serious impairment of bodily functions; or
        3. Serious dysfunction of any bodily organ or part; or

    ii. With respect to a woman having contractions:
        1. That there is inadequate time to effect a safe transfer to another hospital before deliver; or
        2. That transfer may pose a threat to the health or safety of the woman or the unborn child.

c. Transfer eligibility under EMTALA: Reasons may include, but are not limited to, the inability of the sending hospital to stabilize a patients' emergency medical condition because:
    i. The medical service required for stabilizing the patient is not provided or temporarily not available at the sending hospital,
    ii. No on-call panel for the required stabilizing medical service,
    iii. The on-call physician necessary to stabilize the patient is not available,
    iv. The equipment needed to stabilize the patient is not available or out of service.

d. Capacity: the ability to stabilize the individual seeking transfer to a DHS-operated hospital is based on the availability of the following:
    i. Capability: hospital provides medical and surgical services appropriate for the patient.
    ii. Open bed in the appropriate service (ICU, telemetry, ACU, isolation, etc.).
    iii. Accepting physician who can provide the level of care requested.
    iv. Required nursing and technical personnel.
    v. Operational capability (operating room, diagnostic / interventional equipment, etc.).
    vi. Pending admissions (does not apply for transfer of patients with an emergency medical condition).

e. Types of transfers:
    i. ED transfers with an emergency medical condition, a.k.a. "EMTALA transfer".
        1. DHS MAC Reference No. 304.
        2. These were previously referred to as "higher level of care transfers".

    ii. ED transfers of patients without an emergency medical condition, a.k.a. "non-EMTALA transfer".
        3. DHS MAC Reference No. 305.
        4. These were previously referred to as "lateral transfers".

    iii. Stable Inpatient (IP) Transfers.
        5. DHS MAC Reference No. 306.

2. Protocol:

    a. The PFM will evaluate and arrange all EMTALA transfers through the MAC per DHS Medical Alert Center Reference No. 304-6.

b. NO hospital physician shall accept a transfer request from an outside physician. A county physician who receives a call directly from a private hospital physician to present a transfer request should advise the private hospital physician to coordinate the transfer through the MAC.

c. The MAC will contact the Patient Flow Manager at potential receiving hospitals to determine hospital capacity and, if accepted, arrange transfer. See the Attachments for the *MAC PFM Algorithm.*

d. If the Hospital has capacity, the PFM will present the transfer request to the Attending (or Senior Resident in consultation with the Attending) of the appropriate specialty service. If the transfer is accepted, the patient will be assigned to that physician / team accepting the patient. The open bed will be assigned to and held for that patient.

e. Upon arrival of the patient to LAC+USC:

   i. ED to ED transfers (non-EMTALA) will come to the ED.

   ii. ED to IP and IP to IP transfers:
      1. Will NOT go through the ED. The one exception is Orthopedic patients.
      2. Will be taken directly to the admitting nursing unit, evaluation clinic (OMF, ENT, Ophthalmology, Urology, Burns), or 1434 dependent on the clinical service and the patient's medical condition.

   iii. The accepting team will be the primary team assigned to the patient and will be immediately responsible for the patient's care upon the patient's arrival to the hospital.
      1. If the accepting physician / team are post-call and no longer at the hospital, the responsibility for that patient's care is the current physician / team on-call for that service.
      2. If the accepting team determines that the patient's condition requires care by additional services, these specialties will be consulted.
      3. If the accepting team determines that the patient's condition requires care by a different service, this specialty shall be consulted and, if necessary, care transferred per guidelines set forth in the Attending Staff Manual.

f. Note: The DHS guidelines were constructed so that patients requiring transfer receive the care appropriate for their condition.

   i. The following would be a violation of these guidelines (and EMTALA for patients with an emergency medical condition):
      1. Transfer to a hospital without appropriate Capacity.
      2. Transfer to a hospital and not be admitted to the open, appropriate specialty and level of care bed.
      3. Transfer to a hospital and not receive care from the appropriate specialty and level of care staff.

   ii. If these violations were to occur, the patient would have been transferred only to languish in another emergency department rather than being accepted to a different hospital with Capacity and receive the appropriate level of care. Therefore, transfers to LAC+USC will be directly admitted as above.

3. Thresholds

    a. At or above NEDOCS level ORANGE (Overcrowded), the ED is closed to transfers. This is analogous to ED Saturation, and the ED is closed to ALS Paramedic traffic.

    b. At or above NEDOCS level RED (Severely Overcrowded), the hospital is closed to transfers. This is analogous to Code Overload. The hospital is at or near capacity and is not able to accept transfers safely. It is counter-intuitive to accept transfers to the hospital when the hospital is trying to transfer patients out. The possible exceptions are:
        i. Transfers of County patients from Hawkins, Ingleside, and Metro will be accepted per DHS policy.
        ii. If there is a request for an EMTALA transfer and there is an appropriate available inpatient bed and there is no patient awaiting admission to that bed then the request can be accepted.

F. ReddiNet Responsibilities

1. Each shift, the PFM updates the ReddiNet for:
    a. Capacity status for Hospital and ED (census information for transfer status).
    b. Required Psychiatric information.

2. Respond to any requests.

3. ED Staff updates the ReddiNet regarding Diversion due to ED Sat per existing protocol.

The Surge Plan
Full Capacity Protocol: ACU's

SUBJECT:

Full Capacity Protocol for Acute Care Units [11]

PURPOSE:

To improve patient care by facilitating the admission of patients held in the Emergency Department awaiting Acute Inpatient Unit Bed Assignment.

POLICY:

When an adult patient requires admission to an Acute Inpatient Unit from the ED and that area cannot accommodate that patient because of lack of sufficient beds, the patient will be admitted to the next most appropriate bed. In the event that appropriate hospital bed utilization has been maximized, and the number of admitted patients held in the ED has prohibited the evaluation and treatment of incoming patients to the ED in a timely fashion, then appropriate ED patients awaiting in-house acute care bed assignments will be admitted to Acute Inpatient Unit Hall Beds.

PROCEDURE:

A. Administration

1. Activation of Hall Bed Protocol:
    a. The threshold for activation will be NEDOCS level RED (Severely Overcrowded).
    b. Hospital Administration, Medical Staff, Nursing Services, Bed Control, and Ancillary Services have been alerted through the Emergency Notification System that the NEDOCS is at condition RED. Plan implementation is automatic with approval inherently granted.
    c. The ANO, House Supervisor, Bed Coordinator, and Bed Control will determine if all unoccupied Acute Inpatient Unit Beds have been utilized and where nurse competency permits placement of Hall Beds.
    d. The ANO, House Supervisor, and Bed Coordinator may notify the respective units to prepare for Hall Bed patients; however, this should be understood given #1.

2. Discontinuation of Hall Bed Protocol:
    a. NEDOCS level of YELLOW (Busy): ED and hospital overcrowding has been mitigated.
    b. The ED will remain on diversion and the hospital closed to transfer until all Hall Bed patients have been admitted to an appropriate inpatient unit bed.

B. Hall Bed Criteria

1. The ED Attending, the ED Charge Nurse, Bed Coordinator, and House Supervisor will determine the patients that are appropriate for Hall Beds.

    a. Patient **Inclusion** Criteria for Hall Beds:
        i. Non-Monitored patients with little or no co-morbidity will be first considered for Hall Bed placement.
        ii. Non-Monitored patients with minimal to moderate risk factor co-morbidity will be the second patient population to be considered for Hall Beds.

iii. Patients that require minimal O2 (4L or less by nasal cannula) will arrive to the Acute Inpatient Unit Hall Bed assigned with a full tank of O2. Any equipment exchange will be prearranged prior to patient transport.

b. Patient **Exclusion** Criteria for Hall Beds:
   i. Patients requiring CMA/ICU level of care will not be placed in Hall Beds.
   ii. Mechanically ventilated or Bi-Pap patients will not be placed in Hall Beds.
   iii. Patients requiring more than 4L of O2
   iv. Patients that require suctioning.
   v. Patients that have diarrhea or are incontinent of stool are poor candidates for Hall Bed Placement.
   vi. Patients requiring Negative Pressure Isolation will not be placed in Hall Beds. Patients with an isolation code other than Negative Pressure may be placed in hallways only with the approval of the Epidemiology Infection Control Nurse.
   vii. Patients on psychiatric hold or in restraints are poor candidates for Hall Beds.

C. Hall Bed Assignment

1. Bed Control, the Bed Coordinator, and the House Supervisor will prioritize Inpatient Bed assignments as follows:

   a. Patients occupying an Acute Inpatient Unit Bed will not be moved to a Hall Bed in order to make room for ED admissions.

   b. Transfers from the CMA/ICU can only be transferred to an open inpatient unit bed. They cannot be transferred to Hall Beds.

   c. Hall Bed patients have priority over ED admissions for the next available bed on any unit where nursing competencies meet patient needs.

   d. If Hall Beds have been maximized, the CMA/ICU is full, and there is an ED patient awaiting admission to the CMA/ICU, the next available Acute Inpatient Unit Bed will go to the CMA/ICU patient transferring out of the CMA/ICU (and not to the Hall Bed patient).

   e. Any "exception" to the above will be made with the individual approval of the CMA Coordinator, House Supervisor, Medical Director or designee.

2. Bed Control is to designate Hall Bed assignments. As an example, consider the following: Ward XXXX: Hall Bed # -> 3800: Hall Bed 1. Refer to the Attachments for the *Hall Bed Worksheet*.

3. All applicable Acute Inpatient Units will receive a minimum of one Hall Bed patient. Additional Hall Beds will be then be assigned, up to a maximum of three, dependent on need and the resultant over-census staff ratio.
   a. Since the current ACUs have different numbers of beds and staffing, additional Hall Beds will be assigned to maintain an equivalent over-census staff ratio amongst the units.
   b. The exception is for a declared internal / external disaster. Incident Command will evaluate further increasing the number of Hall Beds based on need, competency, and supplemental staffing.

4. Bed Control will attempt, as much as possible, to match the patient to a specialty appropriate Acute Inpatient Unit Hall Bed.

5. The Hall Bed patient will be assigned a specialty-appropriate Primary Team in the usual fashion.

D. Hall Bed Considerations

1. For purposes of this protocol, a "Hall Bed" is a location on an inpatient ward where a hospital bed or gurney can be placed and includes, but is not limited to, an existing bed or bed space (unstaffed or non-budgeted), hallway, solarium, treatment room, break room, etc.

2. Patients will be placed, whenever possible, in close proximity to the nurse's station.

3. Patients will be placed, whenever possible, in areas with access to restroom facilities.

4. Patients will be placed in areas that least obstructs traffic flow.

5. A nurse call device such as a wireless call bell (preferable) or hotel bell will be provided.

6. Privacy screens or curtains will be provided.

7. Hall Beds are to be planned for and included in the written Evacuation Plan.

The Surge Plan
Full Capacity Protocol: CMA/ICU's

SUBJECT:

Full Capacity Protocol for the Intensive Care Units (CMA/ICU).

PURPOSE:

To expand CMA/ICU capacity in response to a patient surge.

POLICY:

The need for CMA/ICU beds may be greater than in-hospital capacity during times of ED Overcrowding and patient surge. Critically ill patients awaiting admission to CMA/ICU beds overwhelm the Emergency Department's resources and prohibit the evaluation and treatment other acutely ill incoming patients. Furthermore, such patients require critical care specialists and units to optimize their medical care.

In the event that appropriate CMA/ICU bed utilization has been maximized, and the number of CMA/ICU admitted patients held in the ED has prohibited the evaluation and treatment of incoming patients to the ED, then the CMA/ICU shall expand capacity.

PROCEDURE:

A. System

1. Activation of CMA/ICU Surge Protocol:

    a. The threshold for activation will be NEDOCS level RED (Severely Overcrowded).

    b. Hospital Administration, Medical Staff, Nursing Services, Bed Control, and Ancillary Services have been alerted through the Emergency Notification System that the NEDOCS is at condition RED. Plan implementation is automatic with approval inherently granted.

    c. Assumption: all response interventions mandated through NEDOCS level ORANGE have been implemented to alleviate overcrowding conditions including:
        i. All CMA/ICU beds have been staffed.
        ii. All CMA/ICU beds are occupied by patients meeting appropriate criteria.
        iii. All pending transfers and discharges have been expedited and processed.

2. Discontinuation of CMA/ICU Surge Protocol:
    a. NEDOCS level of YELLOW (Busy): ED Overcrowding has been mitigated.
    b. CMA/ICU can return to normal operations.

B. Space

1. <u>Utilization of Existing ICU Space</u>

    a. Threshold is NEDOCS level RED and above.

    b. The ANDAs, NMs, PFM, and CCO (business hours) or NOD, ANO, CCO (after hours) will determine the ability to activate and staff closed beds.

    c. The following flex beds will be utilized sequentially:

i. 9300-5 and 9300-6.
ii. 10221-2, 10221-3, and 10221-4.
iii. 12641-2.

d. The following bed space will be utilized:
i. 10221-1.
ii. 12641-1 and 12641-3.

2. Conversion of Non-ICU Space

a. Threshold is NEDOCS level BLACK.

b. The Command Post will consult with the ANDAs, NMs, and CCO (business hours) or the NOD, ANO, and CCO (after hours) to determine the ability to activate and staff the following designated ICU overflow areas:
i. 1202 (12 monitored beds).
ii. 5700 (6 monitored beds, 6 potential monitored beds*). Available if outpatient surgeries are cancelled.
iii. 9th floor PAR (7 monitored beds, 5 potential monitored beds*).
iv. 15th floor PAR (10 monitored beds).
v. Alternate Care Sites.
vi. (*) monitors available. See below.

C. Staffing

1. Medical Staff:
a. As previously noted in these guidelines, all CMA/ICU patients will be admitted to the appropriate Critical Care Specialty Team regardless of location.

2. Nursing Staff

a. The ANDAs, NMs, and ANO will recruit, re-allocate, and assign nursing staff with the appropriate competencies for these areas.

b. Nursing Administration will develop and implement a methodology to flex nurse staffing ratios in the monitored units during conditions of severe patient overcrowding (i.e. a healthcare emergency) should the above efforts be insufficient to meet the need.

i. The methodology shall be based on nurse competency and the realistic needs of the patient given their acuity.

ii. The patient load will be distributed accordingly.

iii. Active beds can then be generated from:
1. Beds previously closed due to staffing.
2. ICU flex beds and space.
3. Conversion of non-ICU space.

iv. This will provide patients requiring monitored beds access to the Critical Care specialty services and staff which will improve patient outcome, patient satisfaction, and decrease LOS.

D. Supplies

1. Philips MP50 portable ICU monitors (Qty. 6) are available for conversion of non-ICU space to a monitored area.
    a. These are located in Disaster Equipment storage. Request from DEM.

The Surge Plan concerns and addresses the following issues:

1. Hospitals have been mandated by multiple agencies and regulatory offices to plan for patient surge.
2. A surge response plan must address daily surge and emergency department (ED) overcrowding in addition to catastrophic surge.
3. The boarding of admitted patients in the ED due to lack of inpatient beds causes ED overcrowding and represents a loss of surge response capability.
4. ED overcrowding increases patient morbidity and mortality placing patients, physicians, and the hospital at risk.
5. The surge response capability of LAC+USC Medical Center is a public health safety issue. It is the largest trauma center and emergency department in the county, the tertiary care referral center in the county, and the cornerstone of county healthcare.

The Plan accomplishes this by establishing a system-wide approach to healthcare surge response capability in order to effectively and appropriately accommodate patient needs, manage healthcare emergencies, and mitigate disasters.

I. Perspective on the Inpatient Bed Crisis

This country had made significant and ground-breaking advances in hospital capacity. After having no significant hospital construction during the Great Depression or World War II, by 1946 the nation's hospital bed capacity was 3.2 beds per 1,000 population. As part of the national hospital sufficiency strategy, the Hospital Survey and Construction Act (1946 Hill-Burton Law) was passed to improve healthcare access and capability. The minimum national standard for hospital bed capacity was set to 4.5 / 1,000.[12]

Over the last 30 years, the gains of the construction act (and even the baseline capacity in 1946) have eroded. The country has not only lost any significant catastrophic surge capacity, it does not have the inpatient capacity to adequately deal with daily ED admissions. This was the direct consequence of myopic and misguided decisions and a variety of socioeconomic factors (including hospital and ED closures, increased ED volumes and acuity, work force shortages, health care financing, and health care law), the details of which are beyond the scope of this discussion. [13] The result has been devastating, and the national statistics are sobering. From 1981 to 2005, the country lost 877 (15.1%) of its hospitals and 199,490 (19.9%) acute care beds with a resulting drop in hospital bed capacity from a ratio of 4.37 to 2.71 beds / 1,000 population. From 1991 to 2005, ED visits have increased 29.7% (26.3 million per year) while losing 9.7% (497) of hospital EDs. Moreover, inpatient admissions have increased 13.4% (4.2 million per year), and the patient demographics are older and more critically-ill. [14] [15] [16] [17] [18] [19]

The crisis is more severe in California with Los Angeles County on the forefront. 2005 statistics show California's bed capacity dropping to a staggering 1.94 / 1,000, ranking it 46th in the nation.[14] Compounding this loss, Los Angeles County has the largest population of any county in the U.S and the largest per capita and total uninsured population in the U.S. Since 1996, they have had a net loss of 26 hospitals (75 receiving hospitals remain) and a net loss of 11 trauma centers (13 remain). [15] [20] The L.A. County Healthcare System has closed High Desert Medical Center and MLK Trauma Center and has made severe cutbacks in beds and services to Rancho Los Amigos Medical Center, a once nationally renowned rehabilitation hospital. Furthermore, LAC+USC Medical Center, the cornerstone of county's healthcare, the third busiest ED in the country, and that at one-time housed 3,000 inpatient beds, has been severely down-sized to a 600 bed facility.

Despite recent catastrophic disasters and terrorism, efforts to improve U.S. healthcare preparedness have focused only on catastrophic surge bed capacity and not on functional, operational inpatient bed capacity. This approach is erroneous. Arguably the best preparedness for patient surge is an all-hazards approach with a strong healthcare infrastructure that has such capacity. This was no better illustrated than in the 2005 Madrid Train Bombing and Hospital Gregorio Maranon (Madrid's General Hospital).

Hospital G. Maranon managed the incident without special disaster training or Euros. Within the first 45 minutes, the staff readied 36 of 36 ICU beds (transferring the same number of patients to intermediate care) and readied 22 OR's. Within 2 hours, they readied 347 ACU beds and discharged the same. Within the first 3 hours, they received the majority of victims. The staff triaged 312, admitted 119, and sent 37 patients to the OR. How? Capacity. Hospital Gregorio Maranon has 1,712 inpatient acute care beds, 40 operating rooms, and an ED with a daily average census of 726. The area of Madrid has 79 hospitals (roughly equivalent to Los Angeles County) with a population of 5.4 million (approximately half the population of Los Angeles County) resulting in a bed capacity of 4.29 beds / 1,000 population (more than 2.2 times greater than California).[21]

II. The Official Mandates

Federal agencies (Homeland Security, National Disaster Medical System, National Bioterrorism Hospital Preparedness Program under the Assistant Secretary of Preparedness and Response), state agencies (California DHS/OES), county agencies (LAC DHS/EMS), the Joint Commission (JCAHO), and national medical organizations (AMA, ACEP, AAEM) have mandated that hospitals prepare for, respond to, and mitigate overcrowding.

Joint Commission:[22] [23]

"The leaders develop and implement plans to identify and mitigate impediments to efficient patient flow through the hospital.

Managing the flow of patients through the hospital is essential to the prevention and mitigation of patient crowding, a problem that can lead to lapses in patient safety and quality of care. The emergency department is particularly vulnerable to experiencing negative effects of inefficiency in the management of this process. While emergency departments have little control over the volume and type of patient arrivals and most hospitals have lost the "surge capacity" that existed at one time to manage the elastic nature of emergency admissions, other opportunities for improvement do exist. Overcrowding has been shown to be primarily a hospital wide "system problem" and not just a problem for which a solution resides within the emergency department. Opportunities for improvement often exist outside the emergency department."

"Patients with comparable needs receive the same standard of care, treatment, and services throughout the hospital."

California DHS:[24]

"Hospitals are expected to take proactive steps as outlined in their own policies and emergency plans to anticipate and manage times of high patient influx.

Hospitals are expected to develop, review, and update internal policies and procedures that address their response to periods of high patient volume. These policies and procedures should describe the specific steps that they will take to mitigate and manage situations of patient overcrowding.

…hospitals are expected to pre-plan for the possibility that these mitigation efforts may fail, and to identify, for their facility, when the criteria of a "justified emergency" is met for the purposes of patient accommodations. This criterion may be met when the hospital has exercised every available internal response to avoid and respond to an influx of patients, and is still faced with a temporary overcrowding situation. A "justified emergency" may exist in the absence of a hospital or declared disaster.

A 'state of emergency' declaration by the local health officer or Governor's proclamation is not necessary in order to use the options described in this memo."

California Code of Regulations:[3]

"The hospital shall plan for routine fluctuations in patient census.

A healthcare emergency is defined for this purpose as an unpredictable or unavoidable occurrence at unscheduled or unpredictable intervals relating to healthcare delivery requiring immediate medical interventions and care."

Los Angeles County DHS:[25]

"Each hospital has a diversion policy and a multidisciplinary team approach to ensure the ability of the facility to remain open and to flex to Surge Capacity, thereby preventing/minimizing time of hospital diversion."

American College of Emergency Physicians:[26]

"Optimal utilization of the emergency department (ED) includes the timely evaluation, management, and stabilization of all patients. The ED should not be utilized as an extension of the intensive care and other inpatient units for admitted patients, because this practice adversely affects quality of care and access to care. …ACEP believes that:

> Hospitals have the responsibility to provide quality patient care and optimize patient safety by ensuring the prompt transfer of patients admitted to inpatient units as soon as the treating emergency physician makes such a decision…
>
> Hospitals should have staffing plans in place that can mobilize sufficient health care and support personnel to meet increased patient needs…
>
> Hospitals should develop appropriate mechanisms to facilitate availability of inpatient beds…
>
> Staffing patterns applicable to other specialized areas/units of the hospital should apply equally to the ED to assure that patients receive a consistent standard of care within the organization…"

Homeland Security:[27]

"The mission of the NBHPP is to ready hospitals and supporting healthcare systems to deliver coordinated and effective care to victims of terrorism and other public health emergencies.

Develop and incorporate plans addressing surge capacity, relationships, and procedures for responding to a mass casualty event into the hospital's overall emergency management plan. [Deadline 3/31/06]

Develop and incorporate plans addressing trauma surge capacity as distinct from the hospital's emergency management plan. [Deadline 3/31/06]

Develop and incorporate a Pandemic Disease Plan into the hospitals overall emergency management plan. [Deadline 3/31/07]"

III. Surge Concepts

The following definitions [4] delineate the concepts of surge:

> Surge: a sizeable increase in demand for resources compared with a baseline demand. Components include Influx (volume, rate), Event (type, scale, duration), and Resource Demand (consumption, degradation).
>
> Surge Capacity: the maximum potential delivery of required resources either through augmentation or modification of resource management and allocation. Components include System (integrity), Space (size, quality), Staff (numbers, skill), and Supplies (volume, quality).
>
> Surge Response Capability: the ability of Surge Capacity (the resources that can be made available) to accommodate the Surge (demand for resources).

The basic principles of and interrelationships between surge, surge capacity, and surge response capability hold for both daily surge and catastrophic surge which are two extremes of a broad continuum. Daily surge will result in ED overcrowding in facilities that do not have adequate resources to meet the demand. Thus, ED overcrowding, the result of mismatch between demand (surge) and resource availability (capacity), can be considered a measure (not a favorable one) of surge response capability. Therefore, any plan addressing surge response capability must address daily surge and ED overcrowding. [4 28]

IV. ED Overcrowding

The ED provides emergency care to the seriously ill and injured patients from the community and to patients referred with emergency conditions, it provides unscheduled urgent care due to lack of capacity or access in the ambulatory care system or the desire for immediate care, and it provides a safety net for vulnerable populations (Medicaid beneficiaries, uninsured) and those with access barriers (financial, insurance, transportation, primary care).[19] The inability to perform these vital functions is a threat to patient safety and public health. [18]

ED overcrowding is a situation in which the identified need for emergency services outstrips available resources in the ED.[2] It is a prime example of a hospital system problem that creates a high risk environment that threatens patient safety. The most significant factor in ED overcrowding is inadequate inpatient capacity resulting in the boarding of admitted patients in the ED. [5 13 17 18 19 28 29] The direct consequences of this are severe and constitute not only a healthcare emergency but a disaster. The consequences include:[18 30 31]

1. Increased relative length of stay (LOS).
    a. There is an increased LOS of up to 1 full day in patients boarded in the ED.
    b. This practice increases patient risk of iatrogenic and nosocomial morbidity and mortality, increases costs to the patients, is a financial loss to the hospital in potential denied days and new admissions, and further decreases bed availability. [32 33]
2. Increased left without being seen (LWBS).
    a. Overcrowding is associated with increased of LWBS and increased incidence of adverse events in patients LWBS. [34]
    b. This increased risk to patient safety, loss of reimbursement from new admissions, and places that hospital at financial risk of lawsuit.
3. Financial losses
    a. Loss of reimbursement due to increased LOS and LWBS as in # 1 and 2 above.

b. High acuity boarded patients often spend their entire critical care days in the ED. This represents a huge financial loss to the hospital in the differential reimbursement of ED vs. critical care billing days.

c. Ambulance diversion and overcrowding results in less ED throughput and decreases potential revenue.[35]

d. Malpractice suits against the hospital and physicians…Enough said.

4. Increased Sentinel Events and Mortality.

a. Studies demonstrate increased risk of medical errors resulting from ED overcrowding.[36]

b. ED overcrowding results in increased wait times, delays in evaluation and treatment, and increased risk of transmission of infectious disease. [37]

c. Boarding causes overcapacity in the ED with the highest acuity patients. The ED is not equipped for the longitudinal care of patients and the result is suboptimal care. Additionally, the care required by the high acuity boarded patients is so labor intensive, other ED patients cannot receive the attention that they require from the ED.[18]

d. Per the Joint Commission, 53% of all reported sentinel event cases in which patient death or permanent injury was due to delays in treatment occur in the ED. In 31% of these cases, ED overcrowding was a contributing factor.[38]

e. ED overcrowding is directly associated with increased patient mortality with a relative risk of 1.3-1.4. Essentially, for a given disease, a hospital's baseline mortality rate increases 140% for patients coming to the ED during a period of overcrowding. [37 39]

f. Bottom line: ED overcrowding causes death.[30]

To summarize: boarding patients in the ED = ED overcrowding = increased risk of morbidity/mortality, medical errors, LOS, and LWBS = financial loss to the hospital (loss of potential reimbursement and malpractice), financial loss to physicians (malpractice and license), risk to the medical center's licensing & certification, risk of medical center closure, and loss of life.

V. Surge Plan Elements

Whether due to daily or catastrophic surge, mitigating overcrowding is the hospital's responsibility. It is a hospital system issue which requires an organizational response. There must be a quick and decisive end to the pervasive and malignant attitude of "Let the ED deal with it", "It's their problem, not ours", and "It's the ED vs. the hospital". This engrained culture only institutionalizes overcrowding and its consequences. The Surge Plan appropriately delegates responsibility throughout the hospital and mandates that contribution and intervention in patient care.

a.) Boarding of Admitted Patients

One of the plan elements is the redistribution of patients from the ED to Acute Inpatient Unit Hall Beds. This is a practice being championed by Dr. Peter Viccellio, DEM Vice-Chair at the State University of New York at Stony Brook.[11 30 31 40 41]

> "The ***hospital*** (not the ED) is overcrowded with admitted patients. Someone foolishly decided that all the extra patients should be kept in the emergency department. This is wrong. The time for an immediate change in strategy is upon us. We can't function as an emergency department with no beds, no monitors, and no space. These patients must leave the ED. They must not remain in the ED, because we have a mission, and that mission is to provide emergency care. We cannot fulfill

that mission without space and staff. We cannot fulfill that mission when our ED is filled with admitted patients. We cannot and will not send away ambulances. We cannot and will not discourage sick people from seeking care when they feel they need it. That is our mission. If we have a zillion ED patients, we're not overcrowded; we're just doing our business. That's ***our*** crowd. We'll take care of it.

We need you to take care of ***your*** crowd, in ***your*** space, with ***your*** staff. The admitted patient needs care that only an inpatient unit can provide. The care is not only a matter of more or less; the care is ***different***, and we cannot provide the type of care they receive elsewhere in the hospital. Since they're in our hallway, they can easily be moved to another hallway. Since there is inadequate staff to care for them in the ED, and they are not ED patients, and cannot and will not and have never received adequate inpatient care while remaining in the ED, they should be on an inpatient service, whether in a room, a hallway, or solarium. This should be done irrespective of inpatient staffing issues, which, however severe, cannot compare with staffing issues created by large volumes of admitted patients in one small area with no designated staff or space. How the hospital inpatient units chose to deal with the problem of excess admissions is up to the inpatient units. It is not our job to suggest or direct solutions, other than to insist that the patients cannot possibly remain in the ED."[40]

He makes the argument that with respect to space/load/expertise/necessity, there are "Good" places for admitted patients (inpatient areas) and "Bad" places for admitted patients (ED). As a patient, where would you rather be?

1. Space. The ED has limited treatment areas, small square footage, is loud, crowded, chaotic, and lacks privacy. Conversely, the hospital has greater expandability, relatively unlimited square footage, is quieter, less crowded, less chaotic, and has more privacy.
2. Load. The ED has bad space, no capacity, many additional patients beyond capacity, many more patients waiting to be seen, and poor nursing ratios. The ED has X number of nurses (but need 2X that number). Conversely, the hospital has good space, no capacity, no patients beyond capacity, no additional patients waiting to be seen, and good nursing ratios. The inpatient units have Y number of nurses (and need Y).
3. Expertise. Emergency physicians (and RN's) are excellent at what they do: Emergency Medicine. They are not internists, surgeons, orthopedists, cardiologist, pulmonologists, etc., nor should they be expected to be. Inpatient areas have the clinical expertise (MDs and RNs) and the appropriate environment in which to provide this level of specialty care. They need to take ownership of and responsibility for the care of their patients and take them to their units. This practice is routinely done by Obstetrics. OB patients do not languish in the ED. Their physicians and nurses take them on their service to their units and deliver expert care regardless of capacity. Why can't other services?
4. Necessity. An overcrowded ED is dysfunctional and incapable of adequately fulfilling its mission. The consequences of which were described at length above.

The solution is straightforward: re-distribute the patients.

1. Focus and what is best for the patients.
2. Send the patients boarded in the ED to an appropriate inpatient unit hallway bed. Distributing the workload to other areas of the hospital improves conditions for patient care and hospital personnel.

The implementation of this protocol has led to the following:

1. The ED spends less time on ambulance diversion.
2. There is increased patient satisfaction. Studies have demonstrated that patient satisfaction nearly doubled in patients admitted to inpatient hall beds vs. awaiting inpatient beds in the ED.
3. Patients spend less actual time waiting for inpatient beds. The presence of Hall patients provides incentive for inpatient services to turnover beds more expeditiously.
4. There is decreased LOS. Studies have demonstrated up to 1 full day decreased LOS in patients admitted to inpatient Hall Beds vs. awaiting inpatient beds in the ED.
5. There is improved nurse staffing ratios and satisfaction. There is a dramatic effect on ED nurse staffing ratios with little impact on inpatient nurse ratios.
6. And, most importantly, there are improved patient outcomes for boarding and ED patients.

b.) Nurse Staffing Ratios

The Surge Plan includes protocols to send admitted patients boarding in the ED to inpatient units in a safe and orderly manner even though there may not be an "appropriately staffed" bed (see Full Capacity Protocols). With respect to mandatory nurse staffing ratios, distributing the workload is appropriate. With respect to patient safety, it is a necessity.

Regarding the state regulations CCR Title 22: 70217, the California nursing ratios include:

Emergency Dept:	1:4 or fewer for routine patients
	1:2 or fewer for critical patients
	1:1 for critical trauma patients
Critical Care Unit:	1:2 or fewer
Step-down Unit:	1:4 or fewer (1:3 after Jan 08)
Telemetry Unit:	1:5 or fewer (1:4 after Jan 08)
Med/Surg Ward:	1:5 or fewer
Pediatric Ward:	1:4 or fewer
L&D:	1:2 or fewer
Postpartum:	1:4 (mother-baby couplets) or fewer

The regulation states this staffing must be maintained at all times BUT with the following caveat:

> The exception to staffing ratios is during a healthcare emergency, as defined in 70127 (q): the hospital shall plan for routine fluctuations in patient census. If a healthcare emergency causes a change in the number of patients on a unit, the hospital must [only be able to] demonstrate that prompt efforts were made to maintain required staffing levels. A healthcare emergency is defined for this purpose as an unpredictable or unavoidable occurrence at unscheduled or unpredictable intervals relating to healthcare delivery requiring immediate medical interventions and care.[3]
>
> Hospitals are not required to seek prior approval from DHS L&C if licensed nurse staffing levels fall below what is required in regulation during a healthcare emergency.
>
> There is no penalty or monetary fine for a violation of the ratio regulations. However, should the CDHS conclude that the violation of the ratios is so severe that it poses an immediate and substantial hazard to the health or safety of patients, CDHS may order the hospital to reduce the number of patients or close a unit additional staffing is obtained. [42]

California regulations clearly state that the nursing ratios do not apply during unavoidable occurrences of high patient influx. No official declaration of disaster is required. There is no penalty or fine. The hospital must simply be able to demonstrate that efforts were made to maintain required levels. According to DHS L&C, there have been no fines to date for hospitals out of ratio because they understand that virtually all hospitals are routinely out of ratio (Celentano C, personal communication with DHS L&C, 2006).

Lastly, nurses will understand and accept such practice if given the understanding that such protocols are necessary to improve the health and safety of patients. With that in mind, consider the following example: The ED is full and has no capacity. It is holding 40 admitted patients, is currently treating 40 additional patients, and has 60 in triage. They have 15 nurses. Staffing ratios mandate more than 25 (not including triage which has additional staffing ratios). The nurse ratio is 1:5.3 (should be 1:1 to 1:4 depending on severity). The inpatient units are full and have no capacity. They have 20 wards with 20 patients each and no other patients. Each ward has 4 nurses and requires 4. The nurse ratio is 1:5 which equals the staffing mandate. Per protocol, if 2 patients are sent to each ward, ED ratios will increase to 1:2.7 making a dramatic impact. The inpatient ratios, however, only decrease a fraction to 1:5.5. Furthermore, ED patients require rapid evaluation, treatment, and stabilization for acute conditions. Thus, they consume more nursing resources when compared to the more stable patients that are admitted. Consequently, decreased staffing ratios in the ED have a greater potential impact on patient safety than it does with inpatient services.

c.) Other

There exist some misconceptions regarding the efficacy of existing improvement strategies. Some are included in this plan only because they are current operational plans and procedures. It should be noted that their use is controversial.

1. Increasing the size of the ED will improve hospital overcrowding.
    a. Studies have shown that from pre-expansion to post-expansion, ED volume increases, total admissions increase, and awaiting admission LOS increases.[43]

2. When the ED is overcrowded, call in more staff.
    a. One of the causes of hospital and ED overcrowding is workforce shortage. There is no one left to call in.[41]

3. When the ED is overcrowded, go on Diversion.
    a. In Los Angeles County, “ED Sat” is becoming the rule not the exception. If everyone is closed, no one is closed...They are coming anyway.
    b. We have a closed catchment area…They are coming anyway.
    c. We never close to trauma, BLS, or walk-in traffic…They are coming anyway.
    d. EMS Providers must bypass many hospitals to find an open ED to take their patient. This practice increases the transport time for [often critical] patients to get the definitive care they need. Additionally, it decreases the availability of these EMS responders for other calls.[44]

4. When the ED is overcrowded, transfer patients out.
    a. It is difficult to justify the cost vs. benefit. Much time and effort is spent in i) finding a willing patient to transfer, ii) finding a patient who meets the stringent criteria of the accepting hospital (i.e. Olive View M.C.), and iii) the paperwork and phone calls required to get even one patient transferred. The limited staff is better utilized with direct patient care.

5. When the ED is overcrowded due to hospital full capacity, cancel elective admissions and reschedule elective surgeries.

a. It is not appropriate for the patient. They have managed to overcome the hurdles of the system to finally get their elective surgery, arrange time off work, and secure the needs of the family.
b. The elective surgery not done today is the emergency surgery tomorrow.[41]

6. Activate the DRC Field Hospital.
    a. These are inflatable tents and portable gurneys. These are outdoor, have no significant sanitation capability, and next to no environmental control.
    b. They function as austere care and if no preferable indoor facility is available. Furthermore, if the network is that overcrowded, there will likely be no staff for these.
    c. This is "Bad" space. Where would you rather be: an inpatient hallway or outside in a tent?

VI. Conclusion

Ultimately, the Surge Plan is about patient care and safety. It addresses patient surge and surge response capability from daily surge through catastrophic surge. Healthcare surge is a hospital system issue and the onus lies with the whole hospital to respond. Therefore, the plan establishes a system-wide approach to expand/contract healthcare capabilities to effectively and appropriately accommodate patient needs and manage healthcare surge.

The Surge Plan mandates that ED overcrowding be addressed since the inability to deal with daily surge will result in ED overcrowding. Furthermore, ED overcrowding, the result of a mismatch between demand and resource availability is, by definition, a disaster. The consequences are severe and places patients, healthcare professionals, and hospitals at risk. It is a healthcare emergency as defined by Title 22 (in reference to nurse staffing ratios). It is a justified emergency as defined by California DHS (in reference to flexing patient accommodations). It necessitates flexing to surge capacity per Los Angeles County DHS (in reference to diversion policy).

The Surge Plan elements are appropriate and justified.

> "LOTS of people are being asked to do a LITTLE extra so that a small number of people can accomplish the difficult, rather than the impossible. It is being asked because this is the safest thing to do for the most patients." [30]

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Hall Bed Admissions Worksheet

Date:_____

WARD	Type	Specialty Service	Beds	Float	Hall Bed 1 MRUN / Name	Hall Bed 2 MRUN / Name	Nrs Staff	Staffed Beds	Nrs:Pt Ratio	# Hall Beds
UNIT 1										
3000	ACU Infection	Ortho	16							
3200	ACU	Ortho	20							
3300	Admitting	Ortho	15							
3800	ACU	Ortho	20							
4200	ACU	Renal	15							
4300	ACU	ENT/OMF	15							
4700	ACU	Oncology	14							
4800	ACU	Surg	15							
5036	ICU	NS	8							
5300	ACU	NS/NM	10							
5800	CMA	NS/NM	10							
5821	ICU	NM	4							
6200	ICU	Med	16							
6700	ACU	Med	19							
6800	Research	Research	19							
7000	CMA (PMA)	Cards	4							
7000	ICU	Cards	12							
7200	ACU	Med, Cards	15							
7300	ACU	Med	15							
7700	ACU	Med-Psych	15							
7800	CMA	Med	18							
8200	ACU	Med	15							
8300	ACU	Med	20							
8700	ACU	Med	20							
8800	ACU Contact Iso	Med	19							
9300	ICU	Surg	14							
9400	CMA	Surg	4							
9700	ACU	Surg	24							
9800	ACU	Surg	24							
10200	ACU	CT	11							
10221	ICU	CT	5							
10700	ACU	Surg	17							
10800	ACU	Surg	23							
12600	ACU	Burns	14							
12638	ICU	Burns	6							
13400	Admitting/ED	Jail								
13600	Jail	Jail								
14600	ACU	Hematology	10							
TOTAL			521	0						
W&C										
2M28	ICU	Ped	8	0						
3K43	Step-Down	Gyn	2	0						
4L7	ICU	Neonatal	26	0						
5L	L&D	OB	10	2						
5L20	L&D Obs	OB	0	12						
6K	ACU	Ped	20	4						
6L	ACU	Ped	21	2						
7K	Postpartum	OB	8	3						
7KN	Nursery	Nursery	4	0						
7L	Ante/Postpartum	OB	12	5						
7LN	Nursery	Nursery	6	6						
8K	ACU	Gyn	14	0						
8L	Antepartum	OB	2	0						
TOTAL			133	34						

Hall Bed Admissions Worksheet

Date:_____

WARD	Type	Specialty Service	Beds	Float	Hall Bed 3 MRUN / Name	Hall Bed 4 MRUN / Name	Nrs Staff	Staffed Beds	Nrs:Pt Ratio	# Hall Beds
UNIT 1										
3000	ACU Infection	Ortho	16							
3200	ACU	Ortho	20							
3300	Admitting	Ortho	15							
3800	ACU	Ortho	20							
4200	ACU	Renal	15							
4300	ACU	ENT/OMF	15							
4700	ACU	Oncology	14							
4800	ACU	Surg	15							
5036	ICU	NS	8							
5300	ACU	NS/NM	10							
5800	CMA	NS/NM	10							
5821	ICU	NM	4							
6200	ICU	Med	16							
6700	ACU	Med	19							
6800	Research	Research	19							
7000	CMA (PMA)	Cards	4							
7000	ICU	Cards	12							
7200	ACU	Med, Cards	15							
7300	ACU	Med	15							
7700	ACU	Med-Psych	15							
7800	CMA	Med	18							
8200	ACU	Med	15							
8300	ACU	Med	20							
8700	ACU	Med	20							
8800	ACU Contact Iso	Med	19							
9300	ICU	Surg	14							
9400	CMA	Surg	4							
9700	ACU	Surg	24							
9800	ACU	Surg	24							
10200	ACU	CT	11							
10221	ICU	CT	5							
10700	ACU	Surg	17							
10800	ACU	Surg	23							
12600	ACU	Burns	14							
12638	ICU	Burns	6							
13400	Admitting/ED	Jail								
13600	Jail	Jail								
14600	ACU	Hematology	10							
TOTAL			521	0						
W&C										
2M28	ICU	Ped	8	0						
3K43	Step-Down	Gyn	2	0						
4L7	ICU	Neonatal	26	0						
5L	L&D	OB	10	2						
5L20	L&D Obs	OB	0	12						
6K	ACU	Ped	20	4						
6L	ACU	Ped	21	2						
7K	Postpartum	OB	8	3						
7KN	Nursery	Nursery	4	0						
7L	Ante/Postpartum	OB	12	5						
7LN	Nursery	Nursery	6	6						
8K	ACU	Gyn	14	0						
8L	Antepartum	OB	2	0						
TOTAL			133	34						

EMERGENCY DEPARTMENT TRANSFERS