Creation of Surge Capacity by Early Discharge of Hospitalized Patients at Low Risk for Untoward Events

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Introduction: Hospitals in the US are expected to function without external aid for up to 96 hours during a disaster. We wanted to determine the potential for creation of inpatient bed surge capacity from the early discharge of hospital inpatients at low risk of untoward events for duration of 96 hours.

Methods: In a healthy system with three capacity-constrained hospitals representative of US facilities (academic, teaching affiliate, community), a variety (n = 50) of inpatient units were canvassed prospectively in rotation using a blocked randomized design over 19 weeks. Intensive care units, nurseries, and pediatric units were excluded. Assuming a disaster occurred on the day of enrollment, patients who did not require any (previously defined) critical intervention (CI) over four days were deemed suitable for early discharge.

Results: Of 3,491 patients, 44% did not require any CI, and were suitable for early discharge. Accounting for additional routine patient discharges and the full utilization of staffed and unstaffed licensed beds, Gross Surge Capacity was estimated at 77%, 95%, 103%, for the three hospitals. When factoring likely continuance of non-victim emergency admissions, the net surge capacity available for disaster victims was estimated at 66%, 71%, 81%, respectively. Reverse triage comprised the majority (50%, 59%, 59%) of surge beds. Most realized capacity was available within 24-48 hours.

Conclusions: Hospital surge capacity for standard inpatient beds may be greater than previously believed. Reverse triage, if appropriately harnessed, can be a major contributor to surge capacity.

Keywords: capacity building; disasters; early discharge; hospitals; capacity building; surge capacity

Augmentation of Hospital Emergency Department Surge Capacity: Recommendations of the Australasian Surge Strategy Working Group

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Introduction: Emergency medicine has produced guidelines, training, and leadership for disaster response management for more than a decade. To date, there have been limited guidelines published for emergency physicians needing to provide a rapid response to a surge in demand.