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## Surge Capacity

When you hear the words surge capacity, do you tend to reach for your Blackberry and start reading your e-mail? Along with the heightened concern for preparedness that began with the millennium, surge capacity has been a constant theme for more than a decade. In the September *Emergency Medicine* article “Disaster Preparedness 10 Years After 9/11” (available at [www.emedmag.com](http://www.emedmag.com)), two contributors raised the issue of surge capacity in the context of an already overburdened emergency care system. Describing it as “the final frontier,” Corey Slovis focused on the need to manage the initial wave of horribly injured and not-so-injured following a natural or man-made disaster, while Rama Rao pointed out that many EDs are being pushed past surge capacity on a frequent—if not daily—basis.

The latter occurrences have become more of a concern recently as, according to some estimates, the nation’s EDs have experienced a 10% annual increase in patient volume since 2009. Whether due to the economy, increased access to health care without an increased number of providers, the alarming number of recent hospital closures, or all of the above, most urban EDs are now operating at or beyond capacity every day of the year.

But all of this is an old story. More worrisome to witness are the occasional unpredictable, inexplicable surges of patients arriving at a particular ED over a short period of time. In some instances, 30 to 40 patients with a variety of complaints may arrive from home, clinics, or doctors’ offices within an hour or two—an hourly rate our ED didn’t experience on September 11, 2001, when we registered 135 additional patients. With each surge, waiting times, lengths of stay, and walkout rates all rise as patient satisfaction plummets and recurrent surges could easily wipe out decades of hard-fought gains in providing uniform, high-quality emergency care. How can unanticipated surges of ED patients be managed by an ED already at or near capacity?

Paradoxically, the consequences of many disasters may be easier to deal with than “routine surges.” Typically with a disaster, health care providers respond without being asked, medications and supplies that have been unavailable for months suddenly appear, ED patients not involved in the disaster quickly disappear upstairs without “push back,” and makeshift triage and treatment areas are created as needed. During these times, JCAHO does not usually conduct surveys, and health de-

partment inspectors work alongside providers to facilitate care for victims. But good luck trying to obtain this response after a surge on an otherwise ordinary day.

Needed instead is an early warning system based on numbers and patterns, such as “X patients in the waiting room at 3 PM” or “X walkouts per hour.” Even 2 or 3 hours’ lead time may enable off-duty or credentialed sessional providers to come in and help out—especially if the hourly pay rate is increased in consideration of the sudden and unusual need. Also, since many “routine” surges occur during off-hours or late afternoons as alternatives to ED visits become unavailable, unused hospital outpatient facilities or unoccupied large rooms near the ED may be adaptable as fast track areas, with EMRs facilitating the tracking of “off site” patients. Mandatory, triggered responses by a variety of inpatient providers and staff for the 2 to 4 hours necessary to absorb and care for the surge will enable an ED to function normally afterwards.

But any hope of managing such surges safely will depend on establishing a formal policy containing easily determined triggers and requiring nondiscretionary responses. Otherwise, all of us may soon lose capacity. **EM**