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# During COVID-19, experts outline 5 key steps for finding extra hospital capacity

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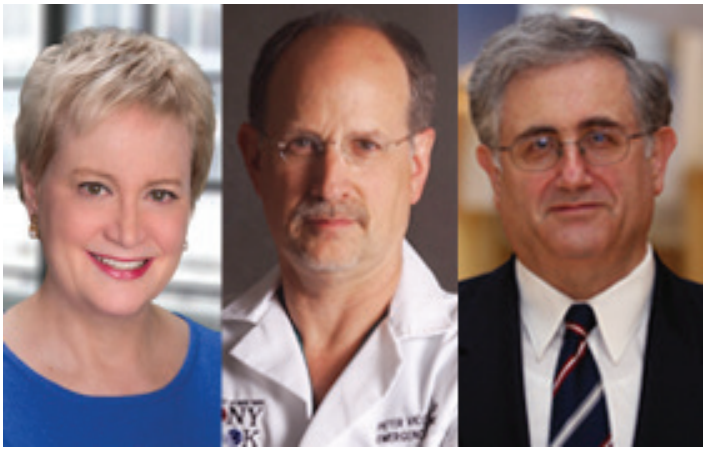

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Hospitals around the country, many already operating at or near 100% of capacity, are now taking drastic steps to prepare for patients with COVID-19.

Some are following Centers for Disease Control and Prevention guidelines and the recommendations of U.S. Surgeon General Jerome Adams, canceling elective surgeries such as hip and knee replacements and scheduled surgeries for cancer patients.

Amid projections that there could be 1 million or more hospitalizations in the U.S. due to the novel coronavirus, there are calls for building "pop-up" hospitals, as in China, or converting hotels and other facilities to temporary hospital wards.

Depending on the extent and severity of the outbreak, some or all of these steps may be necessary. But there will still be tens of thousands of cancer patients, as well as those who have suffered heart attacks and strokes, who will need care amid the pandemic. Fortunately, there is another way to create a large amount of additional hospital capacity quickly, if the hospital and insurance sectors will take coordinated action.

For years, the default choice of hospitals operating at or above 100% of capacity has been to expand and add more beds. But years of research on the subject of "patient flow" has shown that hospitals can manage their bed capacity far better than they often do, and in the process, reduce or eliminate the need to add more beds.

The core problem is that hospitals—and indeed, most of the healthcare system—do not function wholly as 24/7 operations. Although emergency departments may hew to that schedule, full hospital services such as surgeries, and ancillary services such as cardiac catheterizations or physical therapy, are typically only available on weekdays, as opposed to nights and weekends, mainly due to staff scheduling.

Elective surgeries are usually confined to just a few of those weekdays, often to suit surgeons' preferred work schedules. Only about half the number of recovered patients are discharged from hospitals on weekends as opposed to weekdays, sometimes because fewer people are staffing the phones on weekends at insurance companies to approve patients' admission to nursing homes or other post-acute facilities.

The end result is that hospitals tend to be flooded early in the week and empty out slowly as the week goes on. In the "flooded" phase, EDs end up "boarding" patients who need beds, but who instead lie on gurneys in the hallways of the ED—often because elective surgery patients are taking up beds on the main hospital floors. Two-thirds of U.S. hospitals experience this problem now, and it will only grow far worse

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amid the COVID-19 outbreak. That development in turn will only exacerbate other problems, such as a likely shortage of capacity in intensive-care units, and blocked movements of recovering patients from ICUs to so-called "step down" units.

To free up capacity to deal with the pandemic, hospitals and the entire healthcare system must now move to a full 24/7 operational platform. Doing so will require five key steps.

- **The first is to form** an internal rapid-response group within the hospital to take control of patient flow. This group should report directly to the hospital CEO.
- **Next, this group should carefully evaluate** and categorize all the different types of patients in the near-term caseload. Assuming that the precise number of incoming COVID-19 patients will be unknown indefinitely, the group should focus instead on categorizing the other likely caseloads. Emergent patients without COVID-19, such as those who may need emergency heart surgery or women needing emergency C-sections, should obviously be designated the highest priority for admission. True elective surgeries, such as joint replacements, should be placed in the lowest priority, at least temporarily.

Another category of surgeries, neither emergent nor elective, such as cancer surgeries or organ transplants, should be placed in the middle—the second-highest priority category of patients, after both the COVID-19 and other emergent patients. These patients should be scheduled for surgery as soon as practicable.

- **The third step is to put in place** new mandatory procedures to speed the discharge of patients who are well enough to leave the hospital. NYU Langone Medical Center, for example, has shown that it is possible to discharge nearly half its patients by noon on any given day, rather than in late afternoon, as is customary at many hospitals. This act alone frees up hospital capacity on an intra-day basis.

In addition, whereas hospitals today routinely discharge their recovered patients on weekdays, and often on Fridays, they should move to discharge as many as possible on Saturdays and Sundays as well. Insurers should cooperate by having staff available on these days to approve discharge of patients to post-acute facilities if necessary.

- **The fourth step is to perform urgent** and elective surgeries on weekends, which will require some surgeons and other hospital staff to work weekends. This action will distribute these surgeries throughout the week and minimize hospital crowding on a few weekdays.
- **The fifth step is to move to "full capacity protocol,"** which means that no more patients can be boarded in EDs. Instead, they should be moved to other floors in the hospital, even if they must be "boarded" in hallways or conference rooms there. This step is necessary to lessen the burden on EDs and to improve the care and safety of patients overall.

Collectively, these are no small changes: We estimate that they will allow many hospitals to free up at least 20% of their current bed capacity to deal with COVID-19 patients. These measures will also allow them to convert portions of regular hospital floors to intensive-care units. By and large, hospitals will not need to hire new staff, but rather will need to reassign many existing staff to work on nights and weekends.

Of course, there is no one-size-fits-all approach for all hospitals. And besides the issue of bed capacity, hospitals still must grapple with shortages of equipment such as ventilators and respirators, and potentially inadequate numbers of negative-pressure rooms, in addition to other shortfalls.

But one of the most precious resources the U.S. has is its hospitals, especially in this pandemic. Now is not the time to risk the lives of patients in favor of adhering to business as usual. With 24/7 operations across the hospital, many institutions will find more capacity to deal with the this outbreak. Indeed, much of that capacity is right before their eyes.

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