

BUSINESS INSIDER

I'm an ER doctor who had to make tough decisions about which patients to treat on the battlefield in Iraq. I'm worried US physicians will soon face a similar situation.

[Sudip Bose](#) | Mar 27, 2020, 7:00 PM



- Dr. Sudip Bose is a global expert on emergency medicine and mass casualty protocols, and is the city EMS medical director and emergency room physician in Odessa, Texas.
- Bose treated soldiers on the battlefields of Iraq, and sometimes found himself making the difficult decision of which soldiers to save — now he fears American physicians will have to make similar choices.

- Hospitals are going to run out of capacity and supplies — but there are some best practices they can consider.
- Above all, clarity and transparency are key.

A surge of coronavirus patients in the coming days and weeks will tax the resources of emergency rooms and intensive care units like nothing ever seen before by today's US health professionals.

We're likely to see shortages of ICU beds, ventilators, masks, surgical gowns, and other protective gear. We may see medical personnel wearing bandanas over the face, rigging CPAP machines to function as ventilators, beds in hallways, and tents outside of many hospitals.

Hopefully, the social distancing and shutdowns of large gatherings will slow the influx of patients into ERs over a longer period of weeks. But even under the most optimistic forecasts, the numbers of infected people requiring hospital care will vastly exceed our hospital resources.

When I was a doctor on the battlefields of Iraq, I faced situations with multiple casualties and had to quickly decide who do I treat first and how to allocate the finite level of medical supplies I carried in my backpack. Sometimes I had to make heartbreaking choices to let go of dying soldiers and focus on those who I could save.

I'm afraid US physicians will be confronted with similar situations soon where they must decide when to take a dying patient off a ventilator in order to provide the equipment to a healthier patient who has a much better chance of survival.

How bad can it get?

According to estimates from the Centers for Disease Control and Prevention reported by the New York Times, between [160 million and 214 million people in the US](#) could become infected and as many as many as 200,000 to 1.7 million people could die. Estimates on hospitalizations range from 2.4 million to 21 million people.

Given that we have only about [925,000 hospital beds and less than 100,000 ICU beds](#) and patients with severe coronavirus often develop pneumonia and require 7 to 10 days of hospitalization, it's painfully obvious that hospitals do not have the capacity.

Historically, the most apt comparison is the 1918 influenza, the deadliest epidemic in modern history, which infected a third of the world's population and killed at least 50 million people. Hospitals coped by accepting only the most urgent patients, discharging the least ill, and turning many people away. Hallways, offices, gymnasiums, parish halls, and tents were used to house the ill. Hospitals often ran out of basic supplies like linens, gowns, and bedpans.

Today, US hospitals are making a variety of preparations for the influx of patients with coronavirus. Having spoken with a number of ER doctors in the US and other countries, here are the best practices that I'm hearing about and recommending:

- Create triage tents or trailers outside of emergency room entrances to test for the virus. For those who test positive, create a separate entrance so as not to contaminate the waiting room and other staff. Lock down other doors.
- Divide ERs into people with respiratory difficulties brought on by coronavirus and patients with other issues. Subdivide the respiratory units into high acuity, intermediate acuity, and low acuity.
- Work with government authorities to find other beds outside the hospital — just as was done in the 1918 epidemic. [The Army Corps of Engineers](#) is planning to convert more than 10,000 empty hotel and college dorm rooms into hospital rooms in New York City and is considering similar measures in Washington state and California. This may have to be done on a much wider basis.
- Where possible in densely populated areas with regional hospital systems, create a dedicated unit for people suffering heart attacks and strokes to lessen the strain on other hospitals treating coronavirus patients.
- If feasible, convert hospital spaces into negative pressure rooms to house coronavirus patients. By directing air flow inward, contaminants do not leak out of these rooms and infect others.
- To further reduce chances of infections within the hospital, do not allow the use of CPAP machines with nebulizers — which are devices that convert liquid into a breathable mist. Coronavirus particles are very light and can float through air and linger on surfaces longer than other viruses. If a CPAP is necessary, use a helmet rather than a mask.
- Train surgeons, urologists, ophthalmologists and other hospital personnel to care for coronavirus patients. Make sure they understand and adhere to personal protective equipment protocols to prevent contagion within the hospital.
- Segregate incoming patients — particularly those who show symptoms, but who have not been tested. Some hospitals plan to test patients in their own cars. Others hope to screen patients through telemedicine — usually a video connection via a computer or phone — a method which protects both patients and healthcare providers.

Despite everyone's best efforts, if the CDC projections are accurate, hospitals across the country will be faced with making hard choices about allocating care away from people who are most likely to die to patients who have a greater chance of surviving.

Given the situations hospitals are likely to face, they should formalize their triage guidelines and communicate them clearly to medical staff, patients, and their families. As difficult as these decisions are, everyone is best served by clarity and transparency.

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