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# President's Page

## Is North Texas prepared for a disaster with mass casualties?

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Hurricane Katrina formed over the Bahamas on Aug. 23, 2005, and strengthened to a Category 5 hurricane in the warm gulf waters before striking New Orleans on Aug. 29. The city survived the initial assault, but death and destruction followed the catastrophic failures of key levees. The hurricane left 1,833 people dead and untold numbers of people injured, despite the city's mandatory evacuation and prearranged evacuation centers, such as the Superdome, that housed more than 25,000 people who could not evacuate. The world watched helplessly on cable news as the tragedy played out.

In April 2009, an outbreak of influenza began in Veracruz, Mexico (later research points to ground zero possibly being in Asia), and Mexican authorities tried to contain the spread. Their efforts were unsuccessful and a worldwide pandemic ensued. This H1N1 influenza, similar to the virus responsible for the 1918 pandemic, mutated to kill not just the weak but also the previously healthy and strong

by causing pneumonia and ARDS in a small but significant number of its victims. When the virus finally relented, more than 284,500 deaths were confirmed. However, likely more than 500,000 people had died, based on estimates that included deaths that were not confirmed by laboratory testing or were in people who did not have access to medical care.

On April 15, 2013, at 2:49 p.m., two pressure-cooker bombs exploded near the finish line of the Boston Marathon. Three people were killed and 264 were injured in the blast set by two Russian-born brothers with extremist Islamic beliefs thought to be in retribution for US military involvement in Afghanistan and Iraq. A subsequent plot to attack Times Square was uncovered in the bombing investigation.

A little more than a month later, on May 20, 2013, tornados touched down west of Newcastle, Okla., at 2:56 p.m. and headed east, striking Moore, Okla. (pop. 57,000). Staying on the ground for 39 minutes, the tornado created a path of destruction 17 miles long and nearly 2 miles wide. With wind speeds of more than 210 mph, the EF5 tornado caused incredible damage. The National Weather Service had issued a tornado watch for the area at 1:10 p.m. and upgraded it to a warning at 2:40 p.m. It struck Moore proper around 3 p.m., giving this seasoned tornado-alley town more than 30 minutes to prepare. Despite this, 24 people were killed and 377 were injured.

Whether a warning is issued weeks, days or hours before an event, or not at all, many challenges exist in the organized and ethical distribution of first aid, triage and medical care; prevention of secondary infections; and utilization of limited resources.

Physicians have to make tough decisions in the heat of a crisis. Without planning or predetermined guidance, decision-making becomes even more daunting.

The North Texas Mass Critical Care Task Force was formed to address this. This regional collaboration is led by physicians and includes public health leaders, hospitals, ethicists, clergy, legal professionals, emergency management professionals, and elected leaders. The mission of the task force is the adoption and implementation of nationally recognized clinical guidelines for healthcare providers to use uniformly across North Texas in the event of an overwhelming disaster.

### Beginnings

Efforts began in 2009 when the Dallas County Medical Society's Community Emergency Response Committee asked the DCMS board for permission to address this issue. Under the chairmanship of John Carlo, MD, the committee began its work by focusing on the efforts of Robert Fine, MD, and the Baylor Health Care System, which had adopted a systemwide set of clinical guidelines based on the Institute of Medicine's recommendations.

Soon after the committee started its work, DCMS became aware of the efforts of the Tarrant County Academy of Medicine Ethics Consortium, which had been working since 2006 to address ethical issues that might arise during a widespread infectious outbreak that strains healthcare resources. This led DCMS and the Tarrant County Medical Society to create the regional task force with Drs. Carlo and Fine, and two physician leaders from the Tarrant County Medical Society, Drs. Sandra Parker and Kendra Belfi, as the four cochairs.

## Where the System is Vulnerable

The task force focused on two choke points in the critical care system — indications for emergency care/hospital admission and for ventilator allocation. Having consistent guidelines for these areas would better distribute the scarce resources and ensure the maximum number of survivors. Unfortunately, the state was nowhere near offering statewide guidelines, and task force organizers decided the group should not delay its work.

Fairness and consistency must be the ethical basis of any framework that allocates treatment in the face of limited resources. Therefore, the task force developed a decision-tree algorithm that protects patients by ensuring all are treated equally, regardless of considerations such as economic, social or political status.

The algorithm also protects the physicians who must make the difficult decisions.

In the aftermath of Katrina,

physicians were second-guessed and allegations of mistreatment, malpractice and even murder made headlines. Uniform guidelines give providers a well thought-out, predetermined and ethically based algorithm to follow to avoid Monday-morning quarterbacking.

The North Texas Mass Critical Care Task Force was guided by four goals:

- to ensure maximum survival of individuals,
- to ensure appropriate treatment is provided fairly and consistently,
- to identify “best practices” in the use of the limited resources, and
- to recruit the necessary leadership.

These guidelines are intended for use in Dallas, Tarrant, Denton, and Collin counties, and are to be activated only upon the governor’s declaration of a state of emergency. They do not trump individual physician judgment, but rather provide a well-reasoned and uniform framework for clinical decision-making and resource allocation in the fog of a disaster.

## Draft Guidelines

After years of work, the task force has developed both adult and pediatric guidelines which provide a protocol for triage of patients, and make the best use of hospital and ICU resources that can be overwhelmed in a disaster. This draft has been approved by all involved county medical societies, hospital systems and county health departments, and the state has sent a letter of support. The protocols are based on three levels of incident severity or triage levels. Level 1 is early in a disaster or pandemic and is more preparatory in nature; Level 3 is worst-case scenario in which the strictest measures are implemented.

To ensure that the greatest number of patients survive, a modified Sequential Organ Failure Assessment (SOFA) scoring

system — an objective and evidence-based formula — is used to determine an individual’s survivability. This score considers pulmonary, renal, hepatic, cardiac, and neurologic indicators to generate a score of 0–24. This score determines algorithmically the priority for hospital admission and for ventilator use, if indicated. Patients are considered low priority for hospital admission and/or mechanical ventilation if they have a low severity of illness (SOFA = 0) and thus a high chance of survival without treatment. Patients also are considered low priority for hospital admission and ventilator use if they are too severely ill (SOFA > 11) with a low chance of survival even with aggressive intervention. The most intense interventions are focused on those with the greatest clinical need and with the highest chance of survival with intervention. Every patient who needs care will receive care, although that care may strictly be palliative. The recommendations vary based on the triage level.

## Your Guidelines, Your Voice

These guidelines, while fairly complete, continue to evolve and remain open for changes based on feedback and new ideas. It would be ideal if the Legislature passed safe-harbor protections for people who follow these guidelines. Unfortunately, challenges in regionalized legislation make this unlikely, and we must await a statewide plan before legislation will be considered. The Texas Department of State Health Services has notified the task force that it intends to create a statewide plan over the next two years and has invited us to participate in its development.

Feedback from physicians is most critical because we are the ones who must follow these guidelines. We must understand the basis of the guidelines and be comfortable that they are in the best interest of our community. Our patients will turn to us for answers when disaster strikes and medical care is sought, and we must be familiar enough with these guidelines to properly advise them and speak with a unified voice.

The draft guidelines, background material and minutes from task force meetings are available at [www.dallas-cms.org/community\\_health/mcc/tfmcc.cfm](http://www.dallas-cms.org/community_health/mcc/tfmcc.cfm).

It is important that your voices are heard before disaster strikes. Please look over the guidelines and contact Connie Webster, senior vice president of operations, at 214.413.1426 or [connie@dallas-cms.org](mailto:connie@dallas-cms.org) if you have questions or suggestions. Let’s hope that we never have to face a crisis of the magnitude that would stress our abundant healthcare resources. But if we do, we can rest a little easier knowing that we have prepared for the worst. **DMJ**

*“Hope for the best; prepare for the worst.”*  
—Roger L’Estrange, 1702