Literature and the Arts in Medical Education

Mass Critical Care Ethics: Black and White, or Grey?

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Family medicine residencies are required to include training in disaster responsiveness in their curricula.[1] The importance of preparing physicians for the overwhelming stress and ethical challenges of caring for patients during a disaster was highlighted by Hurricane Katrina.[2] In 2009, the Task Force for Mass Critical Care developed protocols for the allocation of scarce medical resources during mass casualty events such as Katrina or a severe influenza pandemic.[3] To familiarize our residents with the task force's protocols and to help prepare them for the difficult ethical decisions they may face during a disaster, we developed a critical care triaging seminar that incorporates showing excerpts from a television medical drama and utilizes a two-part exercise that involves a challenging medical scenario.

To grab our residents' attention, we start our seminar by showing a scene from a "Grey's Anatomy" episode, "Walk on Water" (season 3, episode 15). The clip begins with the hospital's surgical residents participating in a mock disaster drill when the Chief of Surgery interrupts them with the announcement that there is a real disaster to which everybody must respond. The residents load up their equipment, board ambulances, and head to the accident scene, a packed ferry boat that collided with another ship. The clip ends with the residents struggling to overcome their initial shock at seeing the magnitude of the disaster and being urged sternly by their Chief Resident to "Go help people." Our residents described their reactions to the clip with words ranging from fear and chaos to leadership, teamwork, and focus.

Following the "Grey's Anatomy" segment, we divide the residents into groups, present them with a fictitious scenario involving a bird flu pandemic, and challenge them to develop their own critical care triage criteria. Our scenario places them in a small community hospital that has six ICU beds with ventilators, two ORs (one of which was converted to an ICU bed with a ventilator), and 75 medical beds. They are assigned the task of being the triage officers responsible for allocating scarce ICU beds. Starting with a list of six patients already in the ICU on ventilators (some with the flu, some without, and all in varying levels of critical health) and a list of eight patients in the hospital's ER/triage area who also require ICU ventilator support, the residents must triage who will get a ventilator and who will not.

After making their decisions, the groups shared with each other who they had decided should and should not get a ventilator and the rationale for their decisions. Not surprisingly, there was both agreement and disagreement regarding which patients would and would not receive lifesaving ventilator support. Criteria influencing their decisions included the patient's age, severity of illness, comorbidities, and likelihood of survival. Some groups decided that a patient who was very sick should be in the ICU simply because he/she was critically ill, totally disregarding his/her likelihood of survival. These residents placed little weight on the overall impact of their decision, which would then deprive someone else with a greater chance of survival of getting a ventilator. Other groups based their decisions more on a patient's chance of survival. This caused some conflict between the groups because deciding not to treat someone challenged many residents' concept of the fundamental importance of doing what is best for each patient.

The next part of the exercise involves advancing the time frame of the scenario to later that day and having the groups decide who from a new list of six patients should or should not receive a ventilator. We inform the residents that all of the previous patients who were left on ventilators live and remain on them, while all of the patients denied ventilators either died or improved and no longer need them. The groups of residents met, made their choices, and discussed them again with each other. This time there was greater agreement about providing ventilators for those patients who would

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probably benefit from them the most based on their current clinical condition and preexisting medical problems. The most controversial patient was a 26-year-old homeless man, a known alcoholic and cocaine abuser, with the pandemic flu. None of the groups thought he should get a ventilator despite the fact that he had no medical exclusionary criteria. At the same time, they left other patients on ventilators who clearly should have been excluded based on their medical condition.

Discussing the residents' biases concerning their decision about the 26-year-old homeless man provided a natural segue to considering the ethical issues involved in the triage process. The Task Force for Mass Critical Care used the following ethical commitments as a framework for their recommendations: transparency, justice/fairness, and limitations of individual autonomy.[3] Individual autonomy, ie, the right of a patient to determine one's own medical care, is necessarily limited when allocating scarce medical resources during a disaster because public health factors may need to supercede the choices of individuals. To ensure fairness and public support, the task force recommends that the triage process be transparent and the outgrowth of a public discussion concerning the need to ration health care during a mass casualty event. Adhering to procedural justice by ensuring that the triage process is followed fairly necessitates the avoidance of granting favors and special requests. We challenged the residents to reconsider their decision for the homeless patient in view of these ethical principles. Many still objected to putting him on a ventilator because of his history of alcoholism and drug abuse. This led to a discussion of the relative importance that should be placed on medical utility (probability of successful treatment) versus social utility (one's contribution to society) during the triage process.[4] Just how difficult these issues are to reconcile was evident by the lack of agreement among the residents as to how to care for this homeless patient.

After fully discussing the triage process developed by the residents, we present the work of the Task Force for Mass Critical Care. Specifically, we review the Sequential Organ Failure Assessment (SOFA) score and the severity of chronic illness criteria that they recommend be used to determine triage exclusion criteria. Afterward, we compare and contrast the residents' criteria with those of the Task Force, finding many similarities between the two.

We conclude the seminar by having the residents critique several "Grey's Anatomy" scenes based on the triage protocols we have just discussed. The first scene depicts a man at the disaster asking one of the residents to come help his badly injured friend who is trapped under a car because Search and Rescue is too busy. The resident goes to help the man, who appears to have only a small chance for survival. Our residents correctly criticized the show's resident for allocating herself to a relatively futile, dangerous situation without proper help.

The second scene takes place at the hospital. A ferry passenger is being rolled into the emergency room by Alex, a resident who helped save her at the scene of the accident. The Chief of Surgery assigns the victim's care to another resident over Alex's objections. The Chief then sends Alex to talk to people who have flooded the hospital looking for missing family members who may have been injured in the ferry accident. The final scene we show depicts Alex being overwhelmed by all the people who are frustrated and angry by the lack of information from the hospital about their missing loved ones. Our residents noted that the Chief of Surgery could have better utilized Alex by assigning him to care for the growing number of accident victims rather than sending him ill-prepared to talk to the families, which a nonphysician hospital spokesperson could have done.

This "Grey's Anatomy" episode helps bring our mass critical care triage exercise to life without us having to create our own mock disaster. The emotional impact of the show's initial scenes sets a serious tone for the entire exercise, and the clips we use at the end give our residents an opportunity to be expert medical critics of the show. Our use of "Grey's Anatomy" combined with a simulated triaging exercise provide our residents with the opportunity to practice the medical decision making involved in triaging the allocation of scarce medical resources during a disaster including the crucial component of struggling with the moral and ethical ramifications of their decisions.

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