Rethinking Rescue Medicine: Issues of Justice and a Preventive Medicine Role for EMS

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INTRODUCTION

Emergency medicine, both pre-hospital through emergency medical services (EMS) and in the emergency department (ED), is focused on immediate response to a variety of different illnesses and injuries. Through the Emergency Medical Treatment and Active Labor Act (EMTALA), all patients presenting to an ED are guaranteed to receive assessment and stabilizing treatment regardless of their ability to pay.[1] Thus, the ED often replaces the primary care doctor that many patients simply cannot afford. Manageable illnesses, such as hypertension and diabetes, are left to progress untreated when patients cannot afford necessary health care services and medications. When the ED functions as the primary care doctor, it is often not in a manner that promotes overall beneficence and justice. The system is broken, and patients often come to the ED with end-stage diseases that could have been prevented. Some argue that rescue resources should be withheld from patients who cannot benefit from them and that preventive medicine should be invested in further. This piece seeks to demonstrate the practical difficulties that arise in withholding care in all situations where it may be deemed futile while proposing that further emphasis should be placed on preventive medicine; EMS resources can be utilized in this process.

We shall begin with a consideration of when rescue medicine is necessary. Nancy Jecker is a Professor of Bioethics at the University of Washington and specializes in ethics and healthcare. She argues for the rule of rescue (RR), where rescue medicine should be used only in situations where patients are expected to benefit: "We ought to attempt to rescue an individual when we are reasonably confident that our efforts can help, and when the individual's death is imminent and our failure to act is reasonably expected to result in that person's death."[2] The key point for Jecker is the statement that efforts must help the individual. Jecker develops this notion to argue that rescue medicine should not be offered when there is little prospect for benefit:

> Clearly, if the prospect of benefit is extremely poor, so that the patient is doomed regardless of what we do, then RR does not apply and treatment should be withheld (or compassionately withdrawn if a rescue is already underway). Similarly, if the quality of outcome to be achieved falls well below a threshold considered minimal, RR does not apply and treatment should not be attempted, even if resources are abundant.[3]

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ANALYSIS

Jecker argues that the resources dedicated to rescue medicine in cases with little hope for benefit (for example, resuscitating a patient in multi-organ failure) would be better withheld such that more resources can be dedicated to preventive medicine.[4] In this case, justice to the community served outweighs the small chance of benefit to "doomed" patients.

Jecker also considers the notion of spatial distance, arguing that distance should play no role in determining who gets treatment: "Fairness requires that we avoid discriminating between individuals on morally irrelevant grounds, and merely being located nearby does not seem to be a morally relevant ground."[5] However, distance often plays a distinct role in determining whether or not a rescue attempt is futile or offers little chance of benefit. While one group of patients in need of resuscitation consists of terminal patients similar to the example of the multi-organ failure patient, another group consists of patients who could benefit from resuscitation *if* it is provided in a timely fashion.

EMS provides rescue medicine to patients in both urban and rural settings. Each setting provides its own unique set of challenges. For those who work in rural settings, a common challenge to rescue efforts is time. If a patient enters cardiopulmonary arrest and does not receive bystander CPR prior to the arrival of EMS, passing time amounts to brain damage. Thus, a patient less than five minutes away might be reasonably expected to benefit from resuscitation, whereas a patient twenty or thirty minutes away might be deemed a futile effort. It is unreasonable to place an EMS agency every few miles to serve a handful of homes. Yet, it is also unreasonable not to resuscitate those patients who are farther away from the agency. While many providers feel that these efforts are often futile and lead to false hope for family members, practicality disables us from withholding these efforts. First, a set time period would have to be determined for which these efforts are futile (likely based on a whole brain death criterion).[6] Second, bystanders would have to accurately measure the time elapsing between the onset of cardiopulmonary arrest and EMS arrival. It is unlikely that bystanders would be able to accurately check for the absence of a carotid pulse and be able to accurately measure elapsing time during this chaotic circumstance. It is also incorrect to assume that a bystander would be present at the exact time of cardiopulmonary arrest. Enacting such a policy would surely continue to result in some futile resuscitations, and, more dangerously, failure to resuscitate a patient who may benefit.

The problem of futile rescue efforts may be alleviated in part by public education and preventive medicine efforts. EMS agencies have been successfully involved in public education for injury prevention, but the role of EMS in public education and prevention for medical ailments is much less common.[7] In rural and impoverished areas, public education could enable patients to understand what a resuscitation effort in terminal illness actually entails for the patients and their loved ones versus when a resuscitation effort can truly make a difference. Educating patients to discuss their wishes with their families and obtaining medical directives and orders, if necessary, can prevent some of the futile efforts that place burdens on both families and the system with no chance of benefit.

Community preventive medicine efforts should ensure that patients have access to and properly manage their medications, have follow-up visits with education on how to manage current ailments, live in environments that reduce the chance for falls, and have access to primary care physicians when needed. It must be realized that the overutilized EMS systems and overflowing EDs is a problem created by the view that rescue medicine is a right and primary care is not. The burden on these systems is created when patients need to be seen for ailments that either could be currently managed by a primary care physician or could have been prevented by prior access to a primary care physician: "In medical emergencies where simple measures could easily have prevented an emergency from occurring, the RR has run amuck. A broader view requires, for example, preventing a progressive disease that is left untreated from continuing on its present course and taking a predictable turn for the worse."[8] Prevention entails essentially integrating the current primary care and emergency care systems to some extent.

CONCLUSION

Primary care access and expansion are necessary steps that must be taken to reduce the load on EDs and decrease hospitalizations for ailments that could have been prevented or managed through primary care. Universal health care will grant financial access to patients who cannot currently afford primary care. The expansion of primary care will allow easier spatial access to those in rural areas and allow better access for patients who need to be seen promptly in urban areas. Examples of how these improvements can reduce the load on unnecessary hospitalizations, which often involve EMS, can be seen by looking at other healthcare systems. For example, France has a universal healthcare system that is similar to a single-payer system. It also has excellent coverage of medications and greater access to primary care, and even specialists, which greatly reduces the number of unnecessary hospitalizations: "The United States has exceedingly high rates of avoidable hospitalizations compared with Britain, Germany or France. Comparing Paris and Manhattan, we have 2.5 times the rate of avoidable hospitalizations that they do in Paris."[9] While the loss of physician autonomy is a general fear of universal health care, the French system is not government-run and provides better overall access and primary care for patients, and greater physician autonomy. While the transition to universal health care in the United States will likely come after much debate over the best way to achieve it, the lack of access and current abuse of our emergency medicine systems demonstrates a clear need.

EMS agencies can also play a major role in community preventive medicine efforts. By diverting some resources to preventive medicine efforts, many more expensive resources will decrease in need:

> Emergency services personnel currently spend much of their time reacting to cases that fall between the cracks of today's separate and isolated public safety, health care, and public health systems…Although emergency response must remain our foundation, EMS of tomorrow will be a community-based health management system that provides surveillance, identification, intervention, and evaluation of injury and disease.[10]

By decreasing the incidence of rescue efforts for those with preventable end-stage diseases, the rescue system can be better utilized to serve those with immediate injuries and illnesses that can benefit from rescue medicine. Incorporating preventive medicine into rescue medicine can also save lives through less invasive and emergent measures with long-term benefits, instead of more emergent "life and death" measures without long-term benefits. Such an effort would prevent the need for such extreme measures in the first place and prolong the lives of patients with manageable diseases.

All things considered, rescue medicine seeks to keep the community it serves safe. However, it is important that such efforts maximize justice and benefits while minimizing risks. Emergencies requiring a large amount of resources for little benefit to those with terminal or progressed illnesses limit justice for the community as a whole. More patients with manageable diseases will become patients with end-stage diseases, and this cycle will perpetuate until patients have access to the care and medications they need. With proper preventive medicine training, EMS is uniquely equipped to integrate preventive medicine into rescue medicine and deliver it directly within the community. Some preventive medicine providers, such as Evolution Health (a national home healthcare provider) and Golder Ranch Fire District (which offers preventive care through additionally trained "community integrated paramedics"), have already had success in enacting community preventive health measures.[11] This step, combined with improved access to primary care and medications, will expand justice, beneficence, and even autonomy as patients become better equipped to understand and manage their injuries and illnesses.

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[1] EMTALA was passed in 1986.

[2] Nancy S. Jecker, "The Problem with Rescue Medicine," Journal of Medicine and Philosophy 38, no. 1 (2013): 67.

[3] Jecker, "The Problem," 71.

[4] Jecker, "The Problem," 75.

[5] Jecker, "The Problem," 70.

[6] The whole brain death criterion is fulfilled when the entire brain, comprised of both the higher brain and the brainstem, has experienced an irreversible cessation of function. Patients who meet this criterion are legally dead.

[7] Theodore R. Delbridge et al., "EMS Agenda for the Future: Where We Are … Where We Want to Be," Annals of Emergency Medicine 31, no. 2 (1998): 258.

[8] Jecker, "The Problem," 79.

[9] Victor G. Rodwin, "Health Care Abroad: France," Interview by Anne Underwood and Sarah Arnquist, The New York Times, September 11, 2009, http://prescriptions.blogs.nytimes.com/2009/09/11/health-care-abroad-france/?_r=0.

[10] Ricardo Martinez, "New Vision for the Role of Emergency Medical Services," Annals of Emergency Medicine 32, no. 5 (1998): 595.

[11] Joshua Hurguy, "Fire-Based Community Paramedicine: Golder Ranch Fire District's Community Integrated Healthcare Program," Journal of Emergency Medical Services, September 4, 2015, http://www.jems.com/articles/print/volume-40/issue-9/features/fire-based-community-paramedicine-golder-ranch-fire-district-s-community-integrated-healthcare-program.html.