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JENNIFER BLACK: What you think you know about CPR is probably wrong

"I swear ... to keep according to my ability and my judgment, the following Oath and agreement: ... I will prescribe regimens for the good of my patients according to my ability and my judgment and never do harm to anyone." ***-- An excerpt from the Hippocratic oath***

As a medical student at USC and a physician-in-training at Kern Medical Center, I remember clearly the times I performed CPR. The experience was certainly not what I'd been led to expect during my CPR class. I recall feeling ribs splinter and breastbones break under my hands; I witnessed teeth crack and lips tear as breathing tubes were forced into victim's throats. Chests were bruised, skin was burned, and lungs collapsed. I was horrified that I had to subject elderly, frail patients to such violence. Very few patients survived the initial effort; those who did were young, and were usually trauma victims, not elderly patients who'd had a stroke or heart attack. All CPR survivors had neurological damage, abdominal bleeding or ruptured spleens. Most of them died in the ICU -- the majority within hours, but a few after several agonizing weeks. I did not know at the time that these are the expected complications and results of cardiopulmonary resuscitation.

Studies show that most people's beliefs about CPR come from television. As a result, the public's expectations of CPR survival are extremely high: most of us think at least 75 percent survive. In one study, 81 percent of hospitalized patients over age 70 believed their chances of surviving CPR and leaving the hospital to be more than 50 percent. Well, if these patients had been actors on a TV show, they'd have been right: CPR "works" 75 percent of the time on television!

In reality, success is much less frequent: If CPR were performed on every single patient in the average hospital, just 15 in 100 would survive to go home. Worse yet, if CPR is done out in the community (such as in Glenwood Gardens' dining room) on an elderly patient with several medical problems, the likelihood of the patient surviving the initial effort is 0 percent to --maybe! -- 2 percent. And what is the probability that the rare survivor will return to previous "baseline" function? Almost zero.

CPR was invented in the late 1950s. It was intended to "restart" the hearts of otherwise healthy patients who had a "cardiac arrest" during heart surgery. Back then two small studies (on a total of 60 patients) demonstrated that about 70 percent were successfully "brought back" after cardiac arrest. Because of this, in the '60s and '70s, CPR was used on more and more patients and in different circumstances. However, it was never shown to work as well as in those early studies.

In reality, in elderly patients, those with advanced cancer, those with dementia (such as Alzheimer's disease), and those living in nursing homes, CPR "restarts" a heart only 5 percent of the time, or less -- and only for a while. Despite this, CPR eventually became the standard "treatment" for everyone who dies -- even the very old and the very sick.

Despite the sophisticated medical technology we have available today, none of us is immortal. And, unless we document in writing that we would *not* want CPR attempted, we can all expect to undergo this always violent, rarely successful procedure at the time of death.

What if CPR does "succeed"? Unfortunately, "success" means landing in an intensive care unit, tethered to tubes and wires, restrained and sedated until our eventual, inevitable death.

My heart goes out to the family of Lorraine Bayless, the 87-year-old woman who died Feb. 26 in the dining room of her Glenwood Gardens home. Unfortunately, the controversy surrounding her death has generated more heat than light, and obscured some important points. First, pundits and politicians everywhere insist that Glenwood staff "let her die" when she was "denied" immediate CPR. Certainly, there are open questions about what care should have been given to her at the time; compassionate, comfort-focused care should *always* be provided, to *every* patient. However, based on the facts about CPR and about Bayless' health condition, it is extremely unlikely that she would have survived earlier CPR, and if she had, even less likely she would ever have left the ICU alive. Second, Bayless' family has stated that their mother wanted to "die naturally ... without any life-prolonging intervention." Unfortunately, these wishes were not documented in writing, so they were not fulfilled. As I stated earlier, if we do *not* document our wishes, CPR, however ineffective and inappropriate, *will* be attempted on us when we die.

This case brings up important questions of facility policy and ethics, as Christopher Meyers notes in the accompanying column. Questions remain about what care Bayless should have received. However, medical professionals should remember that our oath obligates us to "do no harm." We are called upon to provide the best, most compassionate and most appropriate care possible to each of our patients. And as patients, we are each entitled to this.

How can we achieve this? First, we must accept that death is an inevitable life event, not a medical problem that can be "solved" with medicine, surgery or CPR. Next, we must learn the *facts* about CPR, and discuss these with our patients/doctors/loved ones. One of these facts: foregoing CPR is frequently not a matter of "letting" someone die, but simply of minimizing the pain and suffering associated with an inevitable death. Finally, we must ensure that our patient's -- and our *own* -- end-of-life wishes are known and clearly documented in an advance directive or POLST (physician orders for life-sustaining treatment) form. By doing these things, we can best assure wishes are respected, harm minimized and dignity preserved.

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