and those receiving a brief steroid taper? Does the use of inhaled CS (these patients were excluded from analysis) affect ARDS prevalence or outcomes? These questions cannot be answered by the current study.

Despite these limitations, Karnatovskaia et al (11) have advanced the debate about the role of CS in ARDS by providing the first study specifically focused on the effects of prehospital CS on ARDS risk and outcomes. Their data suggest that outpatient CS therapy does not alter the natural clinical course in patients at risk for the development of ARDS. However, given the multiple beneficial effects of CS on ARDS pathophysiology and the positive results in some clinical trials of low-dose CS early in ARDS, there remains some uncertainty about the potential use of CS as a prophylactic agent in highrisk patients. The recently announced National Heart, Lung, and Blood Institute Prevention and Early Treatment of Acute Lung Injury Clinical Trials Network is one potential avenue for providing the randomized control trial needed to determine which at-risk patients, if any, may benefit from CS therapy. Until such data are available, the debate is likely to continue.

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# Physicians Looking in the Mirror: How We May Influence the End-of-Life Decisions of Surrogates\*

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#### \*See also p. 1686.

**Key Words:** communication; decision making; ethics; framing; intensive care Dr. Rusinova and Mr. Houdek contributed equally.

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ith the article by Barnato and Arnold (1), in this issue of *Critical Care Medicine*, research in communication and decision-making processes in intensive care is approaching the methodology of surveys, which are more commonly used in marketing or psychology.

The following is an outline of a presented simulation experiment: During an interactive video meeting, more than 250 surrogates were presented with a hypothetical code status decision for a spouse or parent in the ICU with multisystem organ failure. The question posed to the surrogates was whether to perform cardiopulmonary resuscitation (CPR) in the event of a cardiac arrest in the patient, knowing that there was only a 10% chance of survival to discharge.

Surrogates were randomized into groups with different types of "treatment." One group received emotional arousal through emotional attachment of the surrogate at the beginning of the video meeting, whereas the other group did not. Both groups were subsequently subdivided based on four different physician's behaviors: 1) emotional handling, 2) presenting or "framing" the decision as either that of the patient or that of the surrogate, 3) presenting either CPR or no CPR, as the social norm, and 4) presenting the alternative to CPR as either "don not resuscitate" (DNR order) or as "allow natural death."

Fifty-six percent of surrogates decided in favor of CPR in cardiac arrest. Emotional arousal and emotional handling and the decision being either that of the surrogate or that of the patient did not influence the final CPR decision. However, adherence to social norms and the wording of the final directive as either DNR versus "allow natural death" clearly influenced decision making.

It may be surprising and even disturbing to see how a physician's formulation can impact the surrogate's final decision. Consider this: "People have different thoughts about it, but in my experience, most people do not want CPR" versus "People have different thoughts about it, but in my experience, most people want CPR." The difference in the surrogates' decision was substantial: those who have heard the first sentence chose CPR in 48% of cases and those who heard the second sentence chose CPR in 64% of cases.

Most would agree that a DNR order written into the patient's documentation results in the same action as "allow natural death in case of cardiac arrest." That means that at the moment of cardiac arrest, there will be no CPR. One might expect that relatives would consider both propositions as being equal. Different wording, however, makes an important difference to surrogates. The experiment revealed that fewer surrogates chose CPR when the alternative was stated as "allow natural death" than as DNR order (49% vs 61%, respectively).

Some would argue that this hides a status-quo bias (2), which means that people, when asked to choose between the two wordings of one event, favor the "neutral" option, or the one that requires the least or no additional intervention, things happen "naturally." Or it may be a manifestation of the omission bias (3), which means that people perceive actions that lead to a bad outcome as being worse than inaction (omission) that leads to the same bad outcome. "Allow natural death" symbolizes the natural course of things. On the other hand, DNR wording indicates an action, an option that could turn out to be wrong.

Marketing shows that people react in very different ways to information presented in a positive light relative to a negative light, especially over extended periods. For example, people care more for the protection of their skin (and the products for it) when they are informed not how much the risk increases, when they do not protect themselves, but when they are told the protection lowers the risk of cancer (4). This "framing effect" is omnipresent and difficult to avoid (5, 6). In intensive care, we are used to conversations that can profoundly change lives; however, we may be unaware to what extent our formulations and wording impacts decisions of patients or surrogates.

Further research should better determine the extent and influence of "framing techniques" that consciously or subconsciously tend to slip into our clinical practice. Perhaps, we should sometimes "look in a mirror" and think about wording of certain information in structured interviews with patients/ surrogates and consider the impact of our formulations on their decisions. This fact thus challenges the ethical dimensions of the patient/surrogate-physician relationship.

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