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Enhancing informed decision-making: Is more information always better?

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In order for patients and their surrogates to be fully engaged in the process of shared decision-making, they must receive adequate information about proposed treatment plans and interventions. The absence of such knowledge may rob patients and their family members of the ability to make informed decisions or align treatment preferences with patient care. This lack of information becomes even more troubling when it involves interventions such as cardiopulmonary resuscitation (CPR), as uninformed decisions about resuscitation may lead to the provision or withholding of life-extending therapies in a way that is not consistent with a patient's goals. Unfortunately, deficiencies in CPR education are abundant [1]. In this issue of *Critical Care Medicine*, Wilson and colleagues [2] evaluate the role of a video to improve patient and surrogate understanding of CPR choices in the intensive care unit (ICU).

In this randomized controlled trial, critically ill patients and surrogate decision-makers for incapacitated patients in the ICU were randomized to receive either usual care, which consisted of a 16-page pamphlet describing CPR and CPR preference options as well as routine non-standardized code status discussions with ICU clinicians, or usual care plus an 8-minute video describing CPR and CPR preference options. Participant knowledge of CPR and CPR choices was assessed and those in the video group demonstrated significantly better understanding of CPR, including treatments used in CPR, the purpose of CPR, and the meaning of "code status". The majority of participants in the video group reported feeling comfortable watching the video and also felt the video helped them understand their options.

Given the importance of providing adequate information to patients and their family members about disease processes, prognosis, and potential medical interventions, it is

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tempting to believe that the provision of *more* information is the answer. The reality, however, is that more information is not necessarily better. The manner in which the information is shared is also a crucial component of successful education. Many factors influence the ability to comprehend and process medical information, including health literacy, learning styles, and the quality of communication provided. Health literacy, in particular, may represent a significant barrier to informed decision-making for some patients and their family members. Low health literacy may impair comprehension of information about diagnosis and prognosis, and thus lead to uncertainty in decision-making. It is promising, however, that patient education through video tools may attenuate uncertainty related to low health literacy [3]. The use of multimedia educational tools, including both written material and video, may address limitations of written and visual information when each is used in isolation. As in this study and in others assessing the ability of video to enhance knowledge, the combination of video and written information, when well-designed, can improve patient and surrogate understanding of medical information [2, 4–6].

If adequate information is able to promote informed decision-making, then it may also affect which decisions patients and their family members make. In prior studies, the introduction of a videos addressing advance care planning and end-of-life preferences have been associated with significant changes in patient preferences regarding end-of-life care [4, 6–8]. In the study by Wilson and colleagues, changes in CPR utilization and change in DNR code status were not identified. However, as the authors note, this study was not powered to detect such changes. More information is needed to know how the introduction of educational videos in the hospital environment might affect decision-making over time. Ideally, patients and their family members would have access to both written material and video in inpatient and outpatient environments in order to facilitate a sustained understanding of CPR options that they might later use to make healthcare decisions.

In addition to understanding whether educational interventions change treatment preferences, it is also important to understand how those preferences change. Trials including video tools have noted a shift from preferences for more intensive care to less intensive care at the end of life after provision of video information [4, 6–8]. This shift in preferences may represent an improved understanding of CPR and other interventions at the end-of-life, but it is important to remain cognizant of changes that may occur with the introduction of educational tools. The goal of patient and surrogate education is to support the ability to make informed decisions and not to promote one set of treatment decisions over another. Given the potential for bias or inappropriate persuasion, video materials must be carefully made and, as noted in this study, production of a high-quality video can be quite costly. As more educational videos are generated, it will behoove the critical care community to identify videos that balance potential treatment options carefully and provide accurate information for patients and their family members. Otherwise, there is potential to introduce biased information that may be misleading for patients and their families.

In the context of improving patient and family understanding to support decision-making, it is important to note that the desire for more information and the desire for involvement in decision-making are not always congruent. The vast majority of family members of critically ill patients want information, but their desired role in decision-making ranges from

wanting to be the sole decision-maker, to wanting physicians to make all decisions [9, 10]. The distribution across this spectrum of decision-making preference may vary by country and region, but a distribution has been found in all studies to date, including those done in North America, South America, and Europe [9–12]. Importantly, our ability to match our approach to decision-making to family preference appears to be associated with a reduction in symptoms of post-traumatic stress disorder [13]. Therefore, it is important that we incorporate patient and family preference into our approach both to providing information and to conducting decision-making.

Patient and surrogate education about the risks and benefits of potential interventions should be a primary objective of all clinicians caring for patients facing serious or life-threatening illness. Many types of educational materials may be made available to patients and their family members, but as this study and others have shown, the armamentarium used to provide information can and should be more encompassing than written materials. If the goal is to support informed patient- and family-centered decision-making, then clinicians may be better able to do so by embracing a multimedia approach to the education of patients and their family. Further research is needed to evaluate the use of video in the inpatient setting as a tool to improve CPR education and assist clinicians in identifying patient and family member preferred decision-making roles, but results such as these offer promise in the continued effort to support informed decision-making in the ICU.

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