Press Release: INDIANAPOLIS -- Indiana University and Regenstrief Institute researchers report that it takes significantly longer for orders to forgo resuscitation in the event of cardiac arrest to be written for patients who had that decision made for them by a surrogate decision-maker compared to patients who made their own decisions, even though patients with a surrogate were sicker and the resuscitation issue might arise sooner. Among patients who died, patients with a surrogate had a shorter time frame between writing the DNR order and time of death compared to patients who made their own decisions.

“Surrogate decision making is not just more challenging for everyone, it actually affects important care processes in the hospital—in this case, code orders,” said lead author Regenstrief Institute investigator Alexia Torke, M.D., assistant professor of medicine at the IU School of Medicine. “The delay in DNR orders may be due to the more complex ethical and communication issues involved in surrogate decision-making. For a variety of reasons, including not being sure of what the patient would want, surrogates may have difficulty making the DNR decision.”


For every patient admitted to the hospital, a decision needs to be made about whether to resuscitate if the heart or breathing stops. If no decision is made, the patient is generally assumed to be “full code” and full resuscitation will be given, if needed. Some patients decide to have DNR orders, so if their heart or breathing were to stop they would be kept comfortable and allowed to die naturally. Dr. Torke notes that the shorter time frame between the decision to write a DNR order, if a surrogate is involved, and cardiac arrest, allows less of an opportunity for the family and other loved ones to come to terms with death before it occurs and less time to provide palliative care to the patient.

The three-year study of 668 adults age 65 and older in a large, urban public hospital found that surrogate decision-making is the norm rather than the exception. Surrogates made the DNR decision 58 percent of the time. Patients who were unable to make their own decisions and required a surrogate were more likely to be in the Intensive Care Unit (ICU) but did not differ by demographic characteristics from those able to make their own decisions.
For surrogates, DNR decision-making appears to be a process rather than a single event and may require more than one conversation with health care providers, which may contribute to longer times to reach decisions, the researchers note. Previous studies have found that delays in DNR decision-making are associated with higher hospital costs and longer lengths of stay compared to patients whose DNR orders were written at the time of admission.

Surrogate decision making is likely to become even more common as the population ages and the prevalence of dementia and delirium increases. The researchers call for further study to see if supporting surrogates in their decision making can reduce delays in DNR decisions and impact elements of patient care, such as length of stay or cost.

Co-authors of the study, which was funded by the National Institute on Aging, in addition to Dr. Torke, are Greg A. Sachs, M.D., Siu Hui, Ph.D., and Christopher Callahan, M.D., of the IU School of Medicine, the Regenstrief Institute and the IU Center for Aging Research; Paul R. Helft, M.D., of the IU School of Medicine, Indiana University Melvin and Bren Simon Cancer Center and the IU School of Nursing; Sandra Petronio, Ph.D., of the schools of Liberal Arts and Nursing; Christianna Purnell of the Regenstrief Institute and the IU Center for Aging Research. Drs. Torke, Helft, and Petronio are affiliated with the Fairbanks Center for Medical Ethics and IU Health.

The IU Schools of medicine, nursing and liberal arts, the IU Simon Cancer Center, and the Regenstrief Institute are located on the Indiana University-Purdue University Indianapolis campus. --Cindy Fox Aisen