New method could help nurses spot delirium quickly

UNIVERSITY PARK, Pa., USA (September 15, 2015) - Asking just two questions may be able to help nurses and doctors quickly and easily identify delirium in hospitalized older adults, according to health researchers. Delirium is a reversible cognitive condition that can be resolved if caught and treated early.

"Delirium can be very costly and deadly -- and with high-risk patients, time matters," said Donna M. Fick, Distinguished Professor of Nursing and co-director of the Hartford Center of Geriatric Nursing Excellence at Penn State. "Our ultra-brief two-item bedside test for delirium takes an average of 36 seconds to perform and has a sensitivity of 93 percent."

Edward R. Marcantonio, professor of medicine, Harvard Medical School, recently developed the 3D-CAM, a three-minute confusion assessment method, to help identify patients with delirium quickly. However, this method is more complicated than the ultra-brief screening and can still take a significant amount of time to administer. Fick and Marcantonio wanted to develop something that would be easier to use at the bedside and take less time out of a busy nurse's day.

"We started by looking for one question that could detect delirium, but we could only get 83 percent sensitivity, which is not good enough," said Fick. She and her colleagues report their findings online in the Journal of Hospital Medicine.

The researchers were able to find two questions that proved to have a 93 percent sensitivity in identifying delirium: patients were asked what day of the week it was and to recite the months of the year backwards. If a patient failed to answer these two questions correctly -- indicating delirium -- the 3D-CAM would be administered.

Of the 201 participants tested in this study, 42 were clinically diagnosed with delirium. The two-item test identified 48 as possibly delirious -- 42 were identified correctly, with 6 false positives.

"These results still need to be validated, with a very large sample," said Fick, before the test can be recommended for everyday use.

The researchers plan to continue this research in multiple sites with hundreds of participants in the near future to further determine the test's validity as well as how easily the test can be implemented in real-world situations.

This research was conducted as part of Fick's 2013-2014 sabbatical appointment as a visiting scientist with the team at the Institute for Aging Research at Hebrew SeniorLife in Boston, an affiliate of Harvard Medical School.

The research team also included Sharon K. Inouye, professor of medicine, Harvard Medical School and director, Aging Brain Center, Institute for Aging Research, Hebrew SeniorLife; Jamey Guess, biostatistician, division of general medicine and primary care, Beth Israel Deaconess Medical Center; Long H. Ngo, associate professor of medicine, Harvard Medical School and biostatistician, division of general medicine and primary care, Beth Israel Deaconess Medical Center; Richard N. Jones, associate professor, psychiatry and human behavior, Warren Alpert Medical School, Brown University and former senior scientist, Institute for Aging Research, Hebrew SeniorLife; Jane S. Saczynski, adjunct scientist, Institute for Aging Research, Hebrew SeniorLife and associate professor, University of Massachusetts Medical School; Edward R. Marcantonio,

professor of medicine, Harvard Medical School and director, Aging Research Program, division of general medicine and primary care, Beth Israel Deaconess Medical Center.

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