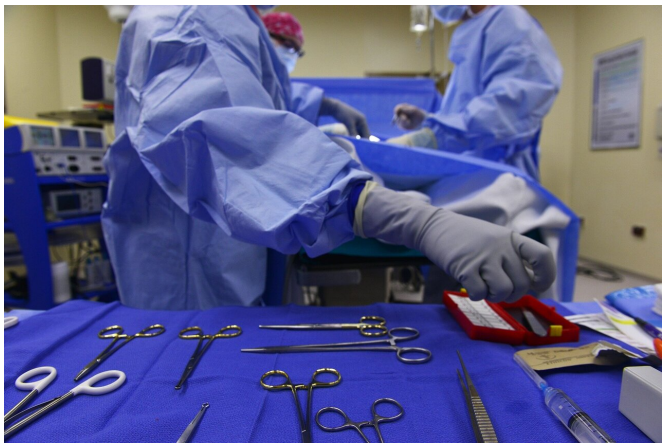
Study shows economic impact of post-op delirium

24 February 2021



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Results of a study published today in *JAMA Surgery* reveal the impact post-operative delirium has on health care costs in the U.S. Data from the study shows that if delirium were prevented or made less severe for patients, it could reduce health care costs by $33 billion per year, that is, $44,300 per patient per year. Severe delirium resulted in an additional $56,500 per patient per year, as compared to routine health care costs for older post-operative patients.

Tammy Hshieh, M.D., M.P.H., Adjunct Scientist, and Ray Yun Gou, M.A., Data Scientist II, both with the Aging Brain Center in the Hinda and Arthur Marcus Institute for Aging Research at Hebrew SeniorLife, are co-first authors. Sharon K. Inouye, M.D., M.P.H., Director of the Aging Brain Center in the Marcus Institute, is principal investigator and senior author on the study. Douglas L. Leslie, Ph.D., a Health Economist at Penn State University, is co-senior author on the paper.

Delirium is a common, serious clinical problem for older adults, often complicating major surgery. It has been associated with poor hospital outcomes, including prolonged hospital stay, functional and cognitive decline, institutionalization, and death.

Prior to this study, existing data did not accurately indicate current costs of delirium to the health care system. This information is essential to helping guide policymakers and health care leaders in decision-making and prioritization surrounding delirium care. According to the study's authors, the aim of the study was to update cost estimates to help funders and health systems develop incentives and strategies that improve processes and quality of care for older adults, and to track improvements over time.

The study included 497 patients from the Successful Aging after Elective Surgery (SAGES) study, an ongoing cohort study of older adults undergoing major elective surgery. Eligible patients were age 70 or older and scheduled to undergo major surgery at one of two Harvard-affiliated hospitals with an anticipated length of stay of at least three days. Eligible surgical procedures included total hip or knee replacement; lumbar, cervical, or sacral laminectomy; lower extremity arterial bypass surgery; open abdominal; aortic aneurysm repair; and open or laparoscopic colectomy. Cumulative and period-specific costs were examined using Medicare claims and extensive clinical data for one year following surgery. Data showed that adjusted cumulative health care costs per patient were significantly higher for those who developed delirium compared with those who did not.

"The economic impacts of delirium and severe delirium after elective surgery are substantial," said Dr. Hshieh.

"Our study highlights the need for policy imperatives to address delirium as a large-scale public health issue that warrants renewed efforts to bolster prevention, early detection, and

management," said Dr. Inouye.

More information: *JAMA Surgery* (2021). DOI: 10.1001/jamasurg.2020.7260

Provided by Hebrew SeniorLife Hinda and Arthur Marcus Institute for Aging Research