A new, Ontario-wide study shows that rates of hospital readmission following a traumatic brain injury (TBI) are greater than other chronic diseases and injuries and are higher than previously reported.

The study, led by Dr. Angela Colantonio, senior scientist, Toronto Rehabilitation Institute, UHN, examined nearly 30,000 TBI patients discharged from Ontario hospitals over the span of eight years. Published in the May edition of *Archives of Physical Medicine and Rehabilitation*, the study found that about 36 per cent of patients with TBI had been re-hospitalized within three years of their initial injury due to a variety of factors. Previously, readmission rates had been reported at about 25 per cent.

"Re-hospitalizations affects patients' quality of life and put a strain on the health-care system," said Cristina Saverino, first author of the study and clinical fellow, Toronto Rehab.

"These findings indicate that we need to consider how to decrease hospital readmissions from TBI patient populations to improve overall efficiency in health care."

The study found that being male, of older age, and more coexisting health conditions were significant predictors of re-hospitalization for TBI patients. Consistent with previous reports, TBI patients discharged with mental health conditions were found to have a higher rate of readmission than others.

In contrast, the study found the risk of re-hospitalization was lower for TBI patients involved in motor vehicle collisions.

"We know that patients with TBI resulting from motor vehicle collisions are more than 50 per cent more likely to be discharged with support services than those who sustained their injury from other causes, likely due to supplemental auto insurance," Dr. Colantonio said. "Because these patients appear to use fewer subsequent hospital services, this may suggest that additional care and rehabilitation provided earlier to all people with TBI could reduce the high costs of readmission."

Dr. Colantonio notes that common causes of re-hospitalization varied by age group and sex, demonstrating a need to look more closely at the factors associated with readmissions to create tailored interventions.

"Our next step will be to examine the comorbidities associated with re-hospitalizations using a more comprehensive set of data," Dr. Colantonio said. "This will be crucial in identifying the best methods to reduce readmissions down the road."

Provided by University Health Network

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.