## The authors respond to: "Delayed discharge and frailty, delirium and functional decline"

Dr. Heckman and colleagues[1] raise the importance of frailty and delirium as possible contributing factors for delays in hospital discharge and need for continuing care. We support the inclusion of frailty measures in hospital-level national databases to standardize this assessment.

Dr. Heckman and colleagues[1] alluded to a lack of standardized national hospital-level acute care data on frailty. Although instruments have been developed to study frailty using administrative data, these tools measure frailty indirectly as a function of age, comorbidity and prehospital residence.[2] Hence, some elements within existing frailty indices were captured in our methods, although we accept that addition of a frailty index could provide further information on the risk of delayed discharge.[3] Hospital databases do not include standardized frailty measures such as the Clinical Frailty Scale or Fried Frailty Index and are inaccurate sources for studying postoperative delirium.[4]

Alternate level of care is an endemic issue within public health care systems that affects patient flow in acute care hospitals and wait times. Closer inspection of the scale of alternate levels of care for Canadian surgical patients who may have personal care needs and specific postsurgical rehabilitation needs (e.g., physiotherapy after joint replacement) has not been performed. Our study provided the first high-level assessment of the use of alternate level of care in complex surgical patients.[5] Like any early evaluation, we focused on global epidemiological features such as incidence, trends and predictors rather than targeted areas like frailty. Given that we showed that older adults are at greater risk of alternate level of care, next steps in this line of research includes evaluating why they are at higher risk — with frailty being an important potential explanation.

We respectfully disagree that all interventions to mitigate risks for delayed hospital discharge should occur before surgery. Upstream rigorously assessed interventions are important but are by no means the only solution. Timely discharge planning and access to community care are invaluable for safe discharge. Indeed, we found wide variation in alternate level of care status among surgeries. Cardiac surgery likely provides some key lessons for programmatic discharge planning because this patient subgroup is typically older with high levels of frailty yet showed low rates of alternate level of care. Another promising avenue is use of bundled care packages, which are available to patients in Ontario who have elective hip and knee replacement. Bundled programs link acute care hospital to postacute care and have lowered lengths of stay in hospital and use of alternate level of care.[6]

There is no single magic bullet for resolving alternate level of care. A sequential perioperative team-based approach, in which health care providers pass on care carefully to the next provider, is needed to optimize recovery at the right times along the patients' surgical journey.

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