Transferring Nursing Home Residents to Acute Care Hospital—To Do or Not To Do, That is the Question

Roger Y. Wong, BMSc, MD, FRCPC, FACP

Nursing home (NH) residents represent a population of particularly frail older adults with multiple comorbid illnesses, high prevalence of physical disabilities, and/or cognitive impairment.1 When they develop acute exacerbations of their chronic conditions, which occurs commonly, residents either receive treatments locally or are transferred to acute care hospitals, usually to emergency departments (EDs). These transfers often become a source of potential frustration. On the one hand, families and NH staff may feel helpless when residents are transferred to the unfamiliar surroundings in acute care (especially for dementia patients who are at increased risk of developing delirium after the environmental translocation)2 and subject to long wait times in busy EDs. On the other hand, ED and hospital staff may feel challenged to manage these residents because hospitalization of NH residents is associated with significant risks for adverse events, including functional decline, delirium, and mortality.3

Multiple factors may be associated with the decision to transfer NH residents to EDs and acute care hospitals. Physiologic determinants are intuitive and include the nature of medical diagnosis, and number and complexity of comorbidities. Functional determinants include the presence and severity of cognitive impairment, duration and extent of mobility problems, and impairment in activities of daily living, to name a few. Together these physiologic and functional determinants contribute to the overall frailty of NH residents.4 However, there are other important psychosocial determinants that may influence the decision, such as the presence (or absence) of advanced directives, availability of substitute decision makers, family dynamics of the residents, and bigger systemic issues such as NH resources (funding, staffing, and workload), ease of access to medical/nursing support, legislation requirements (eg, some jurisdictions do not allow certification of the deceased in private NHs), and so forth.

In this issue of the Journal, Tang et al4 report the results of a database (using MDS-RAI 2.0) cross-sectional study looking at risk factors in 1820 NH residents from 14 facilities that predisposed them to use of acute care hospital services. Although the study was conducted in Hong Kong, China, it addresses an important clinical question that is relevant to many parts of the world. The primary end points were use of EDs and hospitalization. The results found several physiologic and functional factors to be associated with ED use, including a history of falls, renal failure, and inactivity. This is not a surprising finding. More surprisingly, the funding model of NHs also predicted ED use: residents in not-for-profit NHs had increased odds (odds ratio [OR] = 6.51) of ED use compared with for-profit NHs. This was not, however, associated with hospitalization.

The authors should be commended for their efforts and thoughtfulness in completing this inherently difficult study. Although a very common phenomenon around the world, the research question addressed in the study has not been definitively answered in the existing literature. It is fair to note, however, that the current study ends up generating more hypotheses for future testing. The target population was frail with a myriad of heterogeneous medical illnesses, although unfortunately MDS-RAI 2.0 did not capture several common reasons for acute care use, such as gastrointestinal bleeds and delirium. The population also used hospital services frequently: 177 of 1820 residents had 1 or more visits to the ED, and 451 had 1 or more hospitalizations during the study. Despite these challenges, data collection was reasonably complete, including proxy information for residents with cognitive impairment. The NHs sampled were also representative of the facilities at large.

The interpretation of why the NH funding model was associated with ED use and not hospitalization requires further thinking. The simple answer is that we cannot draw clear conclusions based on this study alone. As in many other stories in geriatric medicine, the answer is likely multipronged. Although NH staff number and skills mix (and therefore NH workload) may be a reason, there can be multiple other confounders, such as resident and family expectations, financial affordability to transfer to private hospitals, and availability of Do Not Resuscitate (DNR) orders and advanced directives (interestingly none of the study residents had these established), just to name a few. The NH funding model finding should be viewed as a surrogate marker for some other untested variables, which require future studies to further delineate.

The question of generalizability of the study findings is also worth commenting on. As the authors correctly pointed out,
limitations exist when we attempt to extrapolate findings from database studies. Although geography will influence generalizability because of different health care systems, ethnic backgrounds, and health beliefs, there are amazingly striking similarities between the challenges faced by the authors and their international counterparts. This study lays the foundation in delineating a set of variables (albeit not necessarily a complete list) that are important in forming prediction rules to identify at-risk NH residents who may require acute care support that is not available at the NH. These prediction rules can in turn be helpful in defining best practice.

Finally, a few words on how to best support NH residents who are in need of acute care support. This study provides a snapshot of the status quo, which means transferring to EDs. As mentioned in the beginning of this article, the status quo is not ideal and subject to quality improvement initiatives. Innovative options need to be explored. There is some evidence to support outreach programs to medication management in NHs. Whether acute hospital outreach to NHs may work needs to be explored, although a more sustainable variation likely involves augmentation of NH services to include simple acute care services (eg, step-up units) on site. This might help to alleviate the perception of inappropriate NH transfers to hospitals. Other strategies include deployment of infirmaries, creation of special programs in hospitals for rapid turnaround of NH residents, and so forth. With more options available, hopefully we will have a better approach when deciding whether to transfer NH residents to acute care hospitals or not.

REFERENCES