SUMMARY REPORT

‘Failure to maintain’: Care rationing and the clinical and financial burden of nurse sensitive hospital-acquired complications in older patients (a PhD Thesis Abstract)

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Disclaimer
The views expressed in this work are the views of its author/s and not necessarily those of the Australian Government.
Background:

The ageing population, with concomitant increase in chronic conditions, is increasing the presence of older patients with complex needs in hospital. People with dementia are one of these complex populations, and are particularly vulnerable to complications in hospital. Nurses are known to modify risks for hospital-acquired patient injury through their skilled brokerage between patient needs and hospital functions. A range of patient outcome measures that are sensitive to nursing care has been tested in nursing work environments across the world, however none of these measures has focussed on hospitalised older patients.

Method:

This thesis explores nursing-sensitive complications for older patients with and without dementia using an internationally recognised, risk-adjusted patient outcome approach. Specifically explored are: the differences between rates of complications; the costs of complications; and cost comparisons of patient complexity. Using a retrospective cohort study of an Australian state’s 2006–07 public hospital discharge data for patient episodes for people over age 50 (N=222,440), where dementia was identified as a primary or secondary diagnosis (N=44,422). Extra costs for patient episodes were estimated based on length of stay (LOS) above the average for each patient’s Diagnosis Related Group (DRG) (N=157,178), and were modelled using linear regression analysis to establish the strongest patient complexity predictors of cost.

Results:

Hospitalised patients with a primary or secondary diagnosis of dementia had high rates of complications than did their same-age peers. The highest rates and relative risk for people with dementia were found in four key complications: urinary tract infections; pressure areas; pneumonia, and delirium. While 21.9% of dementia patients (9,751/44,488 (p<0.0001)) suffered a complication, only 8.8% of non-dementia patients did so (33,501/381,788 (p<0.0001)), giving dementia patients a 2.5 relative risk of acquiring a complication (p<0.0001).

These four key complications in patients over 50 both with and without dementia were associated with an eightfold increase in length of stay (813%, or 3.6 days/0.4 days) and double the increased estimated mean episode cost (199%, or A$16,403/ A$8,240). These four complications were associated with 24.7% of the estimated cost of additional days spent in hospital in 2006–07 in NSW (A$226million/A$914million). That is, these four complications accounted for one-quarter of the additional costs of patients with above-average length of stay. Dementia patients accounted for 22.0% of these costs (A$49million/A$226million), even though they were only 10.4% of the population (44,488/426,276 episodes). Hospital-acquired complications, particularly for people with a comorbidity of dementia, cost more than other kinds of inpatient complexity, but admission severity was a better predictor of excess cost.

Discussion:

Four key complications occur more often in older patients with dementia, and the high rate of these complications cost makes them expensive. These complications are potentially preventable, however the care that can prevent them is known to be rationed or left unfinished by nurses, such as mobility, hydration, nutrition and communication. Older, complex patients are more likely to experience care rationing, as their care tends to take longer, be less predictable and less curative in nature. This thesis offers theoretical
development that evidence-based nursing practices are rationed for older, complex patients such as those with dementia, and that this rationed care contributes to functional and cognitive decline during hospitalisation which, in turn, contributes to the high rates of complications observed among older people in hospitals, especially those with dementia. Thus these four key complications can be seen as a ‘Failure to Maintain’ older, complex people in hospital. ‘Failure to Maintain’ is recommended as a useful indicator for hospital quality.

Conclusions:

When examining extra length of stay in hospital, complications and comorbid dementia are costly. Complications are potentially preventable; and dementia care in hospitals can be improved. Hospitals and governments looking to decrease costs can engage in risk-reduction strategies for common nurse sensitive complications, such as healthy nursing work environments that minimise nurses’ rationing of functional and cognitive care. To reduce the increasing clinical and financial burden of older patients and those with dementia, and in order to improve care and outcomes among some of the most vulnerable patients in hospitals, greater monitoring and response is required. Ongoing investigation is warranted into the relationships between the largest health services expense (hospitals), the largest hospital population (complex older patients), and the largest hospital expense (nurses). The concept and indicators of ‘Failure to Maintain’ make a useful and substantive contribution to further clinical, administrative and research developments.

The complete thesis will be available from Canberra University Open Repository in due course http://www.canberra.edu.au/library