

## AGED CARE (STAFFING): NURSE PRACTITIONERS

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### Question

What is the best available evidence regarding the effectiveness of Nurse Practitioners working in residential aged care facilities, and the impact on hospitalization rates for the elderly?

### Clinical Bottom Line

People living in residential aged care facilities are generally frail, have significant health concerns and are frequently admitted to hospital.<sup>1,2</sup> There, they are at risk for a range of adverse outcomes including in-hospital complications (e.g. pressure ulcers, nosocomial infections), functional decline and delirium.<sup>3</sup> In many cases, admission to hospital is potentially avoidable<sup>2</sup> and treatment within the care facility may be preferable. Nurse Practitioners (NPs) may play a vital role in providing a quick, on-site assessment and treatment, therefore reducing the need for hospital transfer.

- A systematic review addressed the impact of NPs on reducing hospitalization and improving care outcomes of long-term care residents. The authors found that the use of NPs in this setting decreased unnecessary hospitalizations, increased access to healthcare, and improved quality of care and health outcomes. They concluded that the utilization of NPs in a long-term care setting should therefore be encouraged.<sup>4</sup> (Level 1)
- A systematic review was conducted to evaluate the role of NPs in aged care. The authors reported that there was a decrease in hospitalization rates of elderly people when an NP was part of the health care team working in nursing homes and a decrease in the rate of transfers to the hospital emergency department. Moreover, the length of hospitalization was decreased for the elderly people from nursing homes where NPs were working.<sup>5</sup> (Level 2)
- A panel of nationally recognized experts in geriatric practice, education, research, public policy, and long-term care, convened to examine and make recommendations about care quality and safety issues related to advanced practice nurses (APNs) in nursing home practice. The experts suggested that advanced practice nurses have a positive impact on resident care and facility outcomes and hence are to be used where feasible.<sup>6</sup> (Level 5)
- A systematic review found that advanced practice nurses are associated with improvements in several measures of health status and behaviors (e.g. depression, urinary incontinence, pressure ulcers, restraint use, and aggressive behaviors) of older adults in long-term care settings and in family satisfaction.<sup>7</sup> (Level 1)
- A study regarding Hospital in the Nursing Home found a reduction to ED presentations from residential aged care facilities in a quasi-experimental study using allocation of clinical staff to address aged care residents that have acute symptoms.<sup>8</sup> (Level 2)
- A pre-post study that evaluated the impact of an NP intervention involving medication reconciliation of all new admissions to a long-term care facility reported positive outcomes. The hospital readmission rate was reduced by 30% after 30 days while additional benefits included increased revenue and improved

quality measures.<sup>9</sup> (Level 2)

- A scoping review was conducted to identify and summarize the outcomes of NP care specific to older people. The review found that care in long-term facilities with NPs was equal or superior in all measured outcomes except cost, when compared to facilities without NPs. Further, it was reported that NPs had better or equal outcomes compared to physician care alone for all outcomes, except for cost, and the role was most effective in reducing service utilization. In addition, the impact of NPs was found to be frequently superior in terms of health indices. Overall, long-term NP care favored continuity of care, reduced hospital admission, and improved satisfaction and comfort.<sup>10</sup>(Level 5)

## Characteristics Of The Evidence

This evidence summary is based on a structured search of the literature and selected evidence-based health care databases. The evidence in this summary comes from:

- A systematic review of 30 studies (randomized controlled trials, quasi-experimental and observational studies).<sup>4</sup>
- A systematic review including seven studies (quasi-experimental and observational).<sup>5</sup>
- An expert panel in geriatric practice.<sup>6</sup>
- A systematic review of four prospective studies.<sup>7</sup>
- A quasi-experimental study.<sup>8</sup>
- A quasi-experimental study (pre-post design).<sup>9</sup>
- A scoping review including 10 quasi-experimental studies, relevant to long-term care.<sup>10</sup>

## Best Practice Recommendations

- Nurse Practitioners should be included as part of the primary care team in residential aged care, as their involvement decreases hospitalization rates and transfers to the hospital emergency department for elderly residents. They can provide cost-effective and timely care, in collaboration with the primary care physician. This improves the quality of life for elderly residents and may prevent further deterioration of their health status due to unnecessary hospital transfers. (Grade A)

## References

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For details on the method for development see Munn Z, Lockwood C, Moola S. The development and use of evidence summaries for point of care information systems: A streamlined rapid review approach. *Worldviews Evid Based Nurs.* 2015;12(3):131-8.

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