TITLE: Nurse Practitioners in Long-Term Care Facilities: Clinical and Cost-Effectiveness and Guidelines

DATE: 1 February 2012

RESEARCH QUESTIONS

1. What is the clinical effectiveness of having nurse practitioners in long-term care facilities?

2. What is the cost effectiveness of having nurse practitioners in long-term care facilities?

3. What are the evidence-based guidelines for having nurse practitioners in long-term care facilities?

KEY MESSAGE

The evidence identified suggests that the implementation of nurse practitioners in long-term care facilities may result in an increase in family satisfaction and improved health services.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 1), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and abbreviated list of major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. The search was also limited to English language documents published between Jan 1, 2007 and Jan 20, 2012. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines.

One randomized controlled trial and six non-randomized studies were identified regarding the clinical effectiveness of having nurse practitioners in long-term care facilities. No health technology assessments, systematic reviews, meta-analyses, economic evaluations, or evidence-based guidelines were identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One randomized controlled trial\(^1\) assessed a multilevel intervention, including monthly on-site consultation from expert gerontological nurses, in order to improve quality of care and resident outcomes in nursing homes. The authors found that the quality of care was improved with the implementation of the intervention, while organizational working conditions, staffing, and costs were not affected.

The six non-randomized studies\(^2-7\) varied in terms of objectives, methods, and results. Overall, the results from the identified studies\(^2-7\) showed evidence that supports the implementation of nurse practitioners in long-term care facilities. A summary of study characteristics and key findings is presented in Table 1.

<table>
<thead>
<tr>
<th>Author, Date</th>
<th>Objective</th>
<th>Results and Conclusions</th>
</tr>
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<tbody>
<tr>
<td>Bynum et al. 2011(^2)</td>
<td>Compare two different models, the first model including the use of NPs, of primary care in four different continuing care communities</td>
<td>Residents in the first model had two to three times fewer hospitalizations and ED visits</td>
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<td>Liu et al. 2011(^3)</td>
<td>Assess family satisfaction with the care provided by NPs to residents with dementia in nursing homes</td>
<td>Satisfaction was significantly associated with NP family communication, resident comfort, and satisfaction with NP care</td>
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<td>Arbon et al. 2009(^4)</td>
<td>Examine the potential role of the NP in aged care residences, communities, and acute care facilities</td>
<td>Strong support was found for the potential of an aged care NP to improve existing health services and delivery of care</td>
</tr>
<tr>
<td>Lawrence 2009(^5)</td>
<td>Assess the rates of completion of advanced directives, using two models, the first model including the use of NPs, in long-term care facilities</td>
<td>The first model had consistently, significantly higher advanced directive completion rates than the model without the use of NPs</td>
</tr>
<tr>
<td>Study (Year)</td>
<td>Purpose</td>
<td>Findings</td>
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<td>Klaasen et al. 2009*</td>
<td>Assess resident and family satisfaction, quality of care, and cost-effectiveness concerning the collaborative working relationship between a NP acting as the primary care provider and a physician in a nursing home</td>
<td>The collaborative practice resulted in decreased drug costs and improvements in use, a decrease in transfers to the ED, and an overall increase in family satisfaction with quality of care provided to residents</td>
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<td>McAiney et al. 2008†</td>
<td>Examine a model for NPs working in long-term care homes and its impact on staff confidence, preventing hospital admission, and promoting early hospital discharge</td>
<td>Implementation of NPs improved staff confidence, reduced hospital admissions, but had no impact on promotion of early patient discharge</td>
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ED=Emergency Department; NP=Nurse Practitioner
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified

Systematic Reviews and Meta-analyses
No literature identified

Randomized Controlled Trials


Non-Randomized Studies


Economic Evaluations
No literature identified
Guidelines and Recommendations
No literature identified

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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies (interdisciplinary collaboration and prescribing behavior)

   PubMed: PM20423389

   PubMed: PM19860968

    PubMed: PM17679583

Review Articles

    PubMed: PM17895516

    PubMed: PM20077962

Additional References


    PubMed: PM21295715

Recent years have seen an increased interest and use of advanced practice nurses (APN) in long-term care. Models of best practices of supervision and collaboration have been promulgated by many organizations, but none have specifically addressed how these interactions should occur in the nursing home setting. In order to better define the role of the attending physician and APN to provide optimal resident care, American Medical Directors Association formed a work group to address collaborative and supervisory relationships in long-term care facilities.
