APNA abstract

Title: caring@home: carers can manage subcutaneous medicines when supported professionally

Introduction: Most Australians say they want to die at home, though less than 14% achieve that outcome. This represents a service gap that GPs and nurses are optimally positioned to fill. However, it is difficult for palliative care patients to be cared for at home without the support, also, of at least one carer, such as a family member.^{1,ii,iii,iv,v} Community healthcare providers and carers can work together so that palliative patients can remain in their preferred place of care.

Palliative patients are inherently unstable, their symptoms can rapidly escalate at any time and, if not optimally treated, can necessitate transfer to inpatient settings.^{vi,vii,viii} Carers often express a lack of confidence when called upon to assume responsibility for symptom management, particularly when it involves the preparation and administration of subcutaneous injections.^{ix,x,xi,xii} Despite this, they remain motivated to help as they believe their ability to provide injections adds value to patient care.^{iv,vii,viii,xiii}

This presentation has two parts. Firstly, it presents a randomised controlled trial (RCT) examining the issue of trained carers' confidence with subcutaneous medication preparation and administration. Secondly, it presents the *caring@home* package – a suite of resources, developed with funding from the Australian Government Department of Health, available across the country for community service providers, healthcare professionals and carers to support carers to manage breakthrough symptoms safely using subcutaneous medicines.

Methods: The RCT was designed to explore possible differences in trained carers' confidence in administering subcutaneous injections. Carers were allocated to one of three groups:

- i Carer prepared, labelled and stored daily breakthrough medications for subsequent injection
- ii Registered nurse prepared and labelled daily breakthrough medications for carers to store for subsequent injection
- iii Clinical trial pharmacist prepared and labelled daily breakthrough medications for carers to store for subsequent injection.

Ninety-three carers, from 24 community services, completed the study. Community nurses used a consistent education package to train carers.

Results: Primary outcome of interest was carer confidence with injection administration; analysis of variance revealed no significant differences between the three intervention arms, means ranged from 5.9 to 6.1 out of 7; F(2,90) = 0.50, p = 0.61. Comparison of confidence after carer preparation versus other (nurse or pharmacist) was not statistically significant (t = 0.7, df = 90, p = 0.49). Averaged over intervention arms, confidence levels increase significantly with injecting experience, from 5.3 to 6.1, F(1,75) = 47.6, p < 0.001. Results show that trained carers can confidently administer subcutaneous injections regardless of whether a carer, nurse or pharmacist prepares the injections.

Implications: These findings indicate that with appropriate training, using high quality resources, carers can be integrated into the palliative care community team to confidently

manage subcutaneous medicines for palliative patients. This has important implications for GPs and nurses managing palliative patients at home. This finding is being applied in the National Palliative Care Project *caring@home*.

- ⁱⁱ. Latter S, Hopkinson JB, Richardson A, Hughes JA, Lowson E, Edwards D. (2016). How can we help family carers manage pain medicines for patients with advanced cancer? A systematic review of intervention studies. *BMJ Support Palliat Care*. 2016; 6(3):263-75.
- iii. Payne S, Turner M, Seamark D, et al. Managing end of life medications at home—accounts of bereaved family carers: a qualitative interview study. *BMJ Support Palliat Care*. 2015; 5:181-8.
- ^{iv}. Sheehy-Skeffington B, McLean S, Bramwell M, O'Leary N, O'Gorman A. Caregivers experiences of managing medications for palliative care patients at the end of life: A qualitative study. *Am J Hospice Palliat Care*. 2014; 31(2):148-154.
- ^v. Connolly J, Milligan S. Knowledge and skills needed by informal carers to look after terminally ill patients at home. *End of Life Journal*. 2014; 4(2):1-14.
- ^{vi}. Anderson BA, Kralik D. Palliative care at home: carers and medication management. *Palliative and Supportive Care*. 2008; 6(4):349-356.
- ^{vii}. Healy S, Israel F, Charles M, Reymond L. Caring Safely at Home Project Final Report: Supporting Cares of People Requiring Palliative Care at Home. Brisbane South Palliative Care Collaborative. 2010 (Unpublished).
- viii. Israel F, Reymond L, Slade G, Menadue S, Charles M. Lay caregivers' perspectives on injecting subcutaneous medications at home. *Int J Palliat Nurs*. 2008; 14(8):390-395.
- ^{ix}. Lau DT, Kasper JD, Hauser JM, et al. Family caregiver skills in medication management for hospice patients: a qualitative study to define a construct. *J Gerontol B Psychol Sci Soc Sci*. 2009; 64B(6):799-807.
- ^x. Bee PE, Barnes P, Luker KA. A systematic review of informal caregivers' needs in providing home-based end-of-life care to people with cancer. *J Clin Nurs*. 2009; 18(10):1379-93.
- ^{xi}. Kazanowski M. Family caregivers' medication management of symptoms in patients with cancer near death. *J Hosp Palliat Nurs*. 2005; 7(3):174-181.
- xii. Lau DT, Joyce B, Clayman ML, et al. Hospice providers' key approaches to support informal caregivers in managing medications for patients in private residences. J Pain Symptom Manage. 2012; 43(6):1060-1071.
- xiii. Healy S, Israel F, Charles MA, Reymond L. An educational package that supports laycarers to safely manage breakthrough subcutaneous injections for home-based palliative care patients: development and evaluation of a service quality improvement. *Palliat Med*. 2013; 27(6):562-70.

ⁱ. Commonwealth of Australia. *Supporting Australians to Live Well at the End of Life: National Palliative Care Strategy 2010*. Commonwealth of Australia. Report number: D0115. Canberra. 2010.