

# The Economic Benefits of Palliative Care and End-of-Life Care in Hospital



## KEY FINDINGS

- Inpatient specialist palliative care consultation teams are consistently found to be less costly than usual care comparators.<sup>8</sup>
- Cost-savings from palliative care are greatest among persons who die in hospital and increase the earlier palliative care is introduced.<sup>10,18</sup>
- Both inpatient palliative care consultation services and specialised palliative care units provided in hospitals are associated with economic benefits for the hospitals.
- The provision of palliative care decreases costs of hospitalisation by better matching treatments to consumers' and families' preferences and goals of care. This not only improves the quality of end-of-life care but also the quality of dying.

## WHAT IS PALLIATIVE CARE AND END-OF-LIFE CARE?

The WHO defines Palliative Care as “an approach that improves the quality of life of consumers and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”.<sup>1</sup> Palliative care is for people of any age who have a serious illness that cannot be cured. Dying is a normal process with palliative care offering a support system to help people to live their life as fully and as comfortably as possible until death and to help families cope during this illness and in their bereavement. People are approaching the ‘end of life’ when they are likely to die within the next 12-months.<sup>2</sup>

## DYING IN HOSPITAL

Hospitals are the most common place where Australians die. In 2014-15, one in every two deaths occurred in hospital and one in three in residential aged care.<sup>3,4</sup> In 2014-15, some 76,856 persons died in hospital. Of the people who died as an admitted patient, less than half (45.9%) had received palliative care during their final hospitalisation.<sup>5</sup>

Data from the AIHW for 2014-15<sup>6</sup> shows palliative care-related hospitalisations accounted for 64,939 separations or around 1 in 150 of all hospitalisations in Australia. Most persons admitted for palliative care stayed overnight and on average for 11.1 days, which is double that for all overnight hospital separations. Cancer was the principal diagnosis in half (50.6%) of the palliative care-related hospitalisations, followed by stroke (4.0%), heart failure (3.2%) and chronic

obstructive pulmonary disease (COPD) (2.8%). More than half of all palliative care-related hospitalisations in 2014-15 ended with the person's death (54.2%).

## ECONOMIC BENEFIT OF PALLIATIVE CARE IN HOSPITAL

If a person's preference for, or circumstances result, in hospital-based palliative care, studies have consistently shown that the use of palliative care teams in hospitals reduces the costs of care. Cost-savings accrue through earlier hospital discharge, reduced intensity of care i.e. decreased use of resources including clinical services, Intensive Care Units (ICUs), therapeutic procedures, diagnostic and imaging services, pharmacy etc., or a combination of both.<sup>7-9</sup> Inpatient palliative care consultations also reduce 30-day hospital re-admission, one indicator of quality of health care. For example, in 2013-14 in one large American urban tertiary hospital, the 30-day re-admission rate was 10.3% for patients who had a palliative care consultation compared with 15.0% for those receiving usual care.<sup>10</sup>

Data from the Department of Veteran Affairs' hospital database on the terminal hospital episodes of a large cohort of 19,707 elderly patients aged  $\geq 70$  years who died in hospital was analysed from 2011-2015.<sup>11</sup> Overall, 59.5% of admitted patients with a cancer diagnosis and 24.3% of other patients accessed palliative care services in hospital. After adjusting for patient age, comorbidity and hospital type, palliative care was associated with significantly lower rates of admission into ICU (1.9% vs 10.6%), fewer procedures and lower costs for hospital accommodation, medical and diagnostic services. The mean total cost of the episodes of care that ended in death was \$10,801 for those who received palliative care. This was 33% lower than the \$16,165 for patients with no recorded access to palliative care.

ICUs are a high cost hospital funding stream and therefore the effect that palliative care consultations have on patients' length of stay in ICU and associated costs has been the subject of a number of studies. The four highest quality studies in a systematic review of 8 showed that patients with a palliative care consultation in the ICU had significantly reduced lengths of stay in ICU when compared with those who did not and five studies showed reductions in ICU costs and in hospital costs.<sup>12</sup> Two other reviews also reported people who participated in advance care planning and palliative care interventions had decreased admissions to ICU and reduced length of stay in the ICU at the end of life.<sup>13,14</sup>

At the well-known Mount Sinai Hospital in New York, palliative care consultation services were extended by

establishing a distinct specialist inpatient palliative care unit (PCU) which opened in 2011.<sup>15</sup> The costs associated with the first two years of the PCU's operation were examined.<sup>15</sup> The average daily direct costs per person significantly decreased following transfer to the PCU from the general hospital wards where patients were seen through the usual palliative care consultation services. Patients in the PCU were more likely to be seen exclusively by physicians and nurses who specialised in palliative care.<sup>15</sup> Similar economic benefits have been reported in other American hospitals where PCUs have been set-up.<sup>16</sup>

In England the Northumbria Healthcare NHS Foundation Trust also established PCUs in two of their hospitals.<sup>17</sup> The dedicated PCUs led to an increase in the at-home death rate, a reduction in deaths in the acute hospital wards, an

increase in the death rate in the specialist palliative care setting; were delivered at a cost significantly lower than setting up a more conventional hospice in a hospital or a community setting and with lower staffing levels; and allowed consumers to be admitted directly to the PCU rather than via the acute hospital route which reduced costs and improved consumer experience.<sup>17</sup>

A multisite study in the US also showed that palliative care consultation earlier in hospital admissions is associated with larger cost-saving effects on the total direct costs of hospital stay for patients admitted with advanced cancer.<sup>18</sup> These findings are supported by a growing body of research that demonstrates early introduction of palliative care improves consumers' health-related quality of life and leads to significant economic benefits.

## MARGARET'S STORY

Margaret was a 79 year old woman admitted to hospital after having a stroke. She had an Advance Care Plan (ACP) in place which stated that she did not want to be resuscitated if her quality of life would be poor, if she would be immobile or unable to communicate. In ICU Margaret had a nasogastric tube inserted, was put on a ventilator and given other treatments. The doctors told her husband John that she was unlikely to regain consciousness and would require artificial feeding and transfer to residential aged care.

John felt this was not in accordance with her wishes and the doctor and specialist palliative care team met with John to discuss Margaret's care and what was outlined in the ACP.

A scan showed that Margaret had another stroke. The palliative care team and John decided that in accordance with her ACP, Margaret would be enabled to die naturally. She was taken off active treatment, the ventilator and the feeding tube were removed and she was moved to a single room within the hospital. Margaret was given medication to assist with pain and restlessness and died peacefully five days later without regaining consciousness. John believed that he had helped fulfil Margaret's last wishes and this assisted with his grieving process.

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