Evidence-Based Action on the Revolving Door of Hospitalizations at the End of Life

Donna M. Wilson RN, PhD

Steve Birch, PhD and

Gail Low, RN, PhD

UNIVERSITY OF ALBERTA

UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

There are no conflicts of interest or competing interests to declare.

Donna M. Wilson RN, PhD
Steve Birch, PhD and
Gail Low, RN, PhD

Introduction

- As few (90-95%) deaths now are sudden and unexpected, most people approaching the end of life (EOL) develop care needs.
- These needs present a high risk of hospitalized death, and also a high risk of frequent EOL hospitalizations.
- EOL care setting transitions (moves from place to place) are often problematic.
- A series of studies and literature reviews have provided evidence for action to reduce and improve EOL care setting transitions.

Learning Objectives
Participants will be able to:

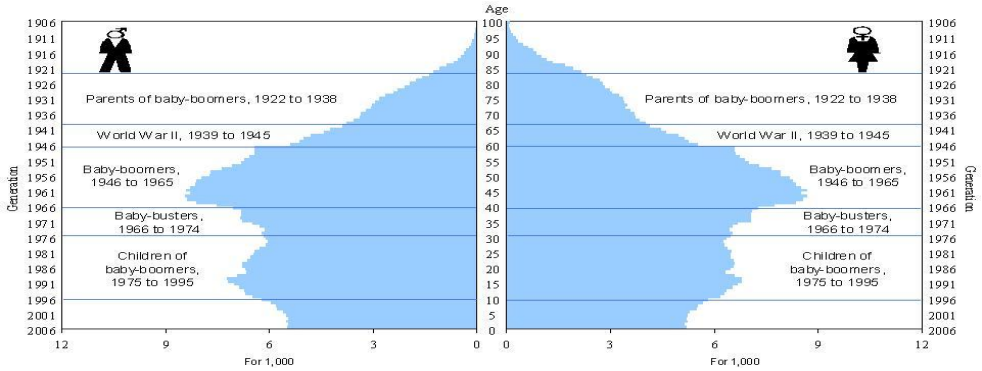
1. Identify the three most common care setting transition issues or problems.
2. Outline the most common care setting transitions (or moves) in the last year of life.
3. Highlight evidence-based solutions to reduce the need for hospital and emergency room (ER) use at the end of life.
4. State frequent EOL care setting transitions are a preventable risk for “good” deaths.

Context (1)

- Research has always been valuable, but it is essential now with rising chronic illness rates, population aging, higher expectations of health care, and the increasing need to continually improve the efficiency and effectiveness of our social and healthcare services, and healthcare systems as a whole.
- Current population-based evidence and systematic reviews of evidence are needed for health and social policy, healthcare services, and healthcare system planning.

Context (2)

- In 10-20 years, the number of deaths taking place each year will double in most countries.
- For instance, there are 270,000 deaths each year in Canada now, with 80% aged 65+.
- There are 10 million babyboomers and 4 million older people, 40% of all 36 million Canadians, who are nearing the end of life.



EOL Care Setting Transitions

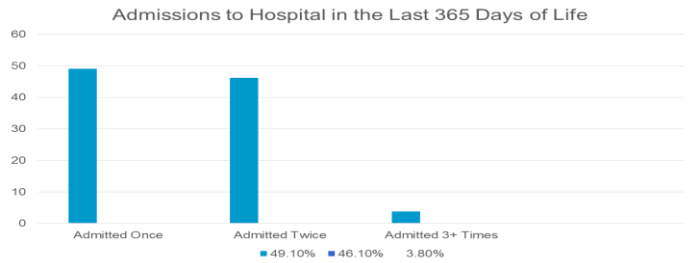
- Long-standing concern has existed over the use of hospitals by people who are nearing or at the end of life (i.e. cost and quality of care).
- Many people die in hospital and they can die there after an escalation in hospitalizations as death nears. These people cannot be thought of as having “good” deaths.
- As most deaths now are not sudden or unexpected, compassionate and effective EOL care is needed for good deaths to occur.

Research Evidence – 4 Sources

- A Law Commission of Ontario funded study of 2 years of complete individual-anonymous Canadian (except Quebec) inpatient hospital 2014-15 data, including all hospitalizations over the last year of life for 88,100 inpatients who died in hospital in the 2014-15 year, and
- A systematic review of published research literature on EOL care setting transitions, and
- A qualitative study of care setting transitions,
- Previous studies by the author and others.

EOL Hospital Use Findings

- 43.7% of all deaths in Canada in the 2014-15 year took place in an inpatient hospital bed.
- 49.1% of the 88,100 Canadians who died in hospital were admitted once to hospital in the last year of life, 46.1% were admitted 2+ times, and 3.8% were admitted 3+ times.



Reference: Wilson, D. M., Shen, Y., & Birch, S. (2017). New evidence on end-of-life hospital utilization for enhanced health policy and services planning. *Journal of Palliative Medicine.* doi:10.1089/jpm.2016.0490

EOL Hospital Use Findings (2)

- Most (79.0%) were admitted through the Emergency Room (ER), an unplanned admission, and 70.5% arrived by ambulance.
- Before dying in hospital, 67.0% were living at home, 3.6% were living at home and receiving home care services, 9.3% were at another hospital, 6.2% were living in a nursing home, and the remainder were in all other places.

Reference: Wilson, D. M., Shen, Y., & Birch, S. (2017). New evidence on end-of-life hospital utilization for enhanced health policy and services planning. *Journal of Palliative Medicine.* doi:10.1089/jpm.2016.0490

Other Canadian Evidence on Hospital Use

- 21% had 2+ hospitalizations in last 90 days of life. 56.3% had 1+ move in last 30 days of life, with home to hospital most common move.

Reference: Abraham, S., & Menec, V. (2016). Transitions between care settings at the end of life among older homecare recipients: A population-based study. *Gerontology & Geriatric Medicine, 2*, 1-8.

- Hospitalizations in the last 5 years of life ranged from 1-50 in number (4.6 mean); 81.9% were admitted 2 or more times.

Reference: Wilson, D. M., & Truman, C. D. (2002). Addressing myths about end-of-life care: Research into the use of acute care hospitals over the last five years of life. *Journal of Palliative Care, 18(1), 29-38.*

Other Canadian Hospital Evidence

- Transitions averaged 3.5, 3.9 and 3.4 for younger and older Albertans. Older persons also had fewer ER and ambulatory visits, fewer procedures performed in the last year of life, but longer inpatient stays (42.7/36.2 days)

Reference: Wilson, D. M., et al. (2011). Age-based differences in care setting transitions over the last year of life. *Current Gerontology and Geriatrics Research, 2011*, ID 101276, 7 pages. DOI: 10.1155/2011/11276

- Rural Albertans had significantly more healthcare setting transitions than urbanites in the last year of life (M=4.2 vs 3.3).
- Reference: Wilson, D. et al. (2012). Canadian rural-urban differences in end-of-life care setting transitions. *Global Journal of Health Science, 4*(5), 1-14 (*online journal)*. Doi: 10.5539/gjhs.v4n5pl

Other Evidence on Moves

- Interviews of Canadians revealed 8 moves on average occurred in the last year of life, including moves from one home to another.

Reference: Wilson, D., et al. (2012). Canadian rural-urban differences in end-of-life care setting transitions. *Global J of Health Science, 4*(5), 1-14.

- 1/2 of home-based Americans who registered for hospice care moved into a nursing home and 1/3 of those living in a nursing home moved home with hospice support services.

Reference: Unroe, K. T., et al. (2015). Hospice use among nursing home and non-nursing home patients. Journal of General Internal Medicine, *30*(2), 193-198.

Relocation Issues

- 53% of nursing home residents in the US were admitted 1+ time in the last year of life. Half of these admissions were for potentially avoidable conditions (5 conditions were responsible for 80% of these admissions: pneumonia, acute heart failure, urinary tract infection, dehydration, and falls).

Reference: Xing et al. (2013). End-of-life care for older patients with ovarian cancer is intensive despite high rates of hospice use. *Journal of Clinical Oncology, 32*(31), 3534-3539.

- EOL moves are very physically challenging.

Reference: Wilson, D., et al. (2012). Canadian rural-urban differences in end-of-life care setting transitions. *Global J of Health Science, 4*(5), 1-14.

Additional Relocation Issues

- Moving is emotionally frustrating and cognitively disorienting.
- Mistakes in medications, equipment, resuscitation actions, care plans, and other problems often occur.
- Moving is costly.
- Moves have opportunity-cost implications.
- EOL care teams change, with mistakes and communication issues common.

References: Multiple print sources and (unpublished) qualitative study by Wilson & Birch.

Solution: Nursing Homes

- 40.7% were hospitalized 1+ times in last 6 months of life (usually younger nursing home residents with acute illnesses); 80.9% died in their nursing home bed, often after a transfer back from hospital.

Reference: Menec, V. H. et al. (2009). Hospitalizations at the end of life among long-term care residents. *J of Gerontology, Medical Sciences 64A*(2), 395-402.

- 73% of home-based Belgians moved 1+ times vs 36% living in care homes in last 3 months (most moves in last 2 weeks of life).

Reference: Van den Block, L., et al. (2007). Transitions between care settings at the end of life in Belgium. JAMA, 298(14), 1638-9.

Solution: Free-standing Hospices

- 20% Germans were discharged to a hospice; most stayed there until death.

Reference: Kotzsch et al. (2015). Care trajectories and survival after discharge from specialized inpatient palliative care--results from an observational follow-up study. Supportive Care in Cancer, *23*(3), 627-634.

- Americans receiving hospice care were less often hospitalized as compared to the control group (42.3% vs 65.1%); and less likely to die in a hospital or a nursing home.

Reference: Obermeyer et al. (2014). Association between Medicare Hospice Benefit and health care utilization and costs for patients with poor-prognosis cancer. *JAMA, 312*(18), 1888-1896.

Solution: Palliative/Hospice Care

- 81% of Americans not getting palliative care were admitted 1+ times to US hospitals in the last 30 days of life vs 48% for those with it.

Reference: Hui et al. (2014). Impact of timing and setting of palliative care referral on quality of end-of-life care in cancer patients. *Cancer, 120*(11), 1743-1740.

- In the last 30 days of life in US nursing homes, 37.6% of non-hospice nursing home residents as compared to 23.2% of those with onsite hospice care were hospitalized.

Reference: Zheng et al. (2015). The effect of hospice on hospitalizations of nursing home residents. Journal of the American Medical Directors Association, *6*(2), 155-159.

Solution: Adequate Amounts of Palliative Home Care or Regular Home Care Services

- Canadian home care clients who were getting more than 7 hours of home care per week had 50% lower odds of being hospitalized when terminally-ill or dying, as compared to those home care clients only getting 1 hour of home care services each week.

Reference: Seow et al. (2010). Using more end-of-life homecare services is associated with using fewer acute care services: A population-based cohort study. Medical Care, *48*(2), 118-124.

Solution: Case Managers

- Those with home visits and telephone calls from a German nurse had 80 unplanned readmissions versus 111 for control group.

Reference: Kirchberger et al. (2015). Effects of a 3-year nurse-based case management on aged patients with acute MI on acute rehospitalisation… PLOS ONE, 10(3), *e0116693.*

- With US case manager, medical costs were 9.8% lower for those living 6+ months and 28.2% lower in the last month of life (due to lower inpatient hospital costs primarily) .

Reference: Wu et al. (2014). Economic value of a cancer case management program. J of Oncology Practice, 10(3), 178-187.

Learning Objectives
Participants will be able to:

1. Identify the three most common care setting transition issues or problems:

- Multiple moves; with care team changes, lack of continuity of care and care coordination, and other safety issues and risks.
- Rapid unplanned moves in reaction to a care need crisis or a family care overload crisis, with high risk of mistakes and other issues.
- The unplanned or emergency use of hospitals for palliative/EOL care.

Learning Objectives
Participants will be able to:

2. Outline the most common care setting transitions (or moves) in the last year of life:

- Home to hospital.
- Hospital to home.
- Hospital to hospital.
- Nursing home to hospital.
- Hospital to nursing home.
- Home to home.

Learning Objectives
Participants will be able to:

3. Highlight evidence-based solutions to reduce the need for hospitals and ERs at end of life:

- Home palliative care services and respite care.
- Early and ongoing EOL care planning.
- Community-based EOL case management.
- Hospital navigators as discharge planners.
- Nursing homes with hospice care capacity.
- Ambulance or rapid call onsite palliative care.
- Free-standing hospices.

Learning Objectives
Participants will be able to:

4. Consider frequent EOL care setting transitions are a preventable risk that reduces the possibility of “good” deaths:

- Some care setting transitions are essential and these need to be accomplished rapidly and without incident.
- Frequent EOL moves are a risk indicator.
- Routine monitoring of moves/transitions, both the number and quality, is indicated.

Conclusion

- EOL moves or EOL care setting transitions is becoming a focus of attention, because of the potential for moves to cause “bad” deaths, increase hospital costs and opportunity costs.
- The need for and current use of hospitals by terminally-ill and dying persons reveal new or reformed EOL services/programs are required.
- With a rapidly increasing number of deaths each year, what will be the future for dying people, their families, and healthcare systems?

Acknowledgements

The most recent study reported here was funded by the Law Commission of Ontario, assisted by CIHR data, and made possible by many people.

Questions? Comments?

Thank you!

donna.wilson@ualberta.ca