

# The Economic Case for Better Dementia Care in Acute Hospitals

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# Background

- Dementia is an expensive condition
- Globally \$600 billion plus
- Ireland €1.7 billion
- Majority of costs borne by family carers
- Residential care costs are also high
- Acute care costs for people with dementia are not so well documented
- Yet impact is likely to be significant

# What is the issue?

- Estimates from UK suggest that people with dementia over 65 years of age are currently using one quarter of hospital beds at any one time
- Many of these people may be unaware that they have dementia
- Symptoms may not always be recognised by physicians or nurses
- Attention now focusing on the quality of dementia care and the cost of dementia care in acute settings

# Outcomes

- Higher mortality
- Longer stays even after adjustment for age, sex and condition
- Higher costs of care associated with longer stays
- Discharge to nursing homes more likely
- Higher disposition to hospital-acquired infections and complications of treatment
- Greater use of antipsychotic drugs

# Methods (1)

- Secondary analysis of in-patient discharges in 2010
- Hospital In-Patient Enquiry 2010
- Dementia-related diagnoses – ICD-10 codes: F00 – F003;G30
- Discharge data
- Length of stay by age group and principal procedure during stay
- 6,702 discharges with diagnosis of dementia
- Representing 1.1% of all discharges

# Methods (2)

- Majority of people in acute care with dementia do not have diagnosis
- Estimated total numbers with dementia in acute care by applying European population-based age-specific prevalence rates to total hospital discharges
- Average length of stay for all age groups compared for those with and without dementia
- Total dementia population multiplied by excess length of stay to identify additional hospital days for dementia by age group
- Excess days assigned unit cost to determine additional costs of dementia in acute care setting

# Results

- Diagnosis of dementia leads to longer length of stay e.g. 11 days for those 85+
- Accounting for non-diagnosed dementia raises dementia-related discharges in each age category e.g. increase from 3,059 to 7,048 in the 75-84 age category
- Leads to additional days spent in acute care - e.g. 16 days in the 65-74 age category
- Additional length of stay varies by condition/procedure – cardiovascular 39 days, respiratory 20 days
- Each additional day cost circa €800 – generic costs
- Total estimated additional cost of dementia is €200 million

## Discharges and Average Length of Stay by Age Group and Recorded diagnosis of Dementia

Age Group	Number without diagnosis of dementia	Mean length of stay without diagnosis of dementia -days	Number with diagnosis of dementia	Mean length of stay with diagnosis of dementia
<65 years	428,561	4.2	252	16.2
65-74	66,428	8.7	852	24.4
75-84	62,807	11.0	3,059	26.8
85+	27,121	12.8	2,539	23.7



# Estimated Prevalence of Dementia in Acute Sector using European Prevalence Rates

Age Group	Total Discharges	Total dementia Discharges
<65	428,813	858
65-74	67,280	1,615
75-84	65,866	7,048
85+	29,660	9,165

# Cost of Excess length of Stay Associated with Dementia

Age Group	Dementia Related discharges	Excess length of stay associated with dementia	Number of extra days	Additional cost €
<65 years	858	12.0	10,296	8,329,464
65-74	1,615	15.7	25,356	20,512,599
75-84	7,048	15.8	111,358	90,088,946
85+	9,165	10.9	99,899	80,817,887

# Average Length of Stay by Procedure with and without Dementia

Procedure	Average LOS without dementia - days	Average LOS with dementia - days
Nervous system	8.5	36.1
Respiratory system	16.8	36.8
Cardiovascular system	9.1	48.1
Digestive system	9.3	34.1
Urinary system	8.3	36.1
Musculoskeletal system	7.5	32.7

# Comparisons

- Increasingly cost burden of dementia on the acute sector is being recognised
- Additional cost of €200 million is significant number for Ireland
- Irish results reflect the international literature – UK, Australia x 2 LOS and x 2.5 cost
- Importance of potential co-morbidities within dementia population – e.g. urinary infection, dehydration and falls

# Care in the Acute sector

- Lack of knowledge about dementia
- Training and education programmes
- Environmental issues – physical infrastructure
- Hydration and nutrition
- Placement decision-making – acute care as last resort for carers
- Family care-givers involvement in the care process
- Alternatives to acute care – investing in primary care and community-based care

# Conclusion

- Acknowledge dementia in acute care settings
- Screening and diagnosis
- Person-centred care
- Education and training
- Reduce time spent in hospital
- Reduce costs
- Reallocate savings to primary and community care