Dementia in acute care

Henry Brodaty
An 82 year old woman falls

- Fractures neck of femur
- Home → Ambulance to Emergency Department
- Confused, frightened, dehydrated, calling out
- Sedated, x-rayed and admitted
- Surgery that night
Post-operative

• More confused
  – Analgesics, sedation
  – Unfamiliar environment
  – Unfamiliar faces
  – Tries to pull out IV and urinary catheter

• Next day
  – Calling out
  – Disturbing other patients and staff
Later during hospital stay

• Does not recall what happened to her
• Keeps trying to get out of bed, falls risk
• Cannot complete menu request
• Is unable to open packaged food
• Calls out .... forgets she can ask for analgesics
• Personal care is a challenge for nurses, who ...
• ... have little knowledge of dementia
• Husband and children almost no consultation
After discharge

- Home – bedroom on first floor
- Bed set up in lounge room
- Care by elderly husband
- Needs help with personal care
- One week’s medications provided
- Communication with GP delayed
- Ten days later, agitated ...
- .... urinary tract infection
Australia relative to East & SE Asia
Australia: Population

- ≈22.3 million people
  - 13% aged 65+
  - 1.7% aged 85+
- NSW is the most populous state
  - ≈ 1/3 of Australia’s population

Source: ABS Year book of Australia 2012
Health system in Australia

• Public hospital care is free, paid for by taxes plus extra levy on higher income earners
• Doctor visits are subsidised up to 85% of scheduled fee (though Drs can charge more)
• Nursing home *care* is free for pensioners, 2/3 of population ≥ 65 yo. Exempt (luxury) homes charge < $800/ week
• NH *accommodation*: bond ($25k- $2m; mean $232k in 2011) depending on assets and luxury level
• Low level residential care always paid bond
Community care in Australia

• Approval required for all subsidised services through Aged Care Assessment Team

• From 1.7.13, four levels
  – Basic
  – 6 hours per week
  – Intermediate
  – \(\leq 21\) hours per week

• Consumer directed care
• Day Centres
Dementia in Australia

- 2011 > 250,000
- 2050 ≤ 1 million
- Biggest cause of disease burden by 2016
- 3rd leading cause of death
- >$6b per annum in Australia\(^1\)
- 0.8% GDP → 1.8\(^2\) (or ? 3\(^1\)) GDP by 2050


\(^2\) Productivity Commission, Ageing Australia
Quadrupling in Australia

Access Economics for Alzheimer’s Australia, 2009
Care of people with dementia

- 180,000 people in RACFs
- Triple by 2050 = 360,000 new beds in 40 yrs;
- 9000 new beds per year for 40 years → 750 new beds per month for 40 years?!
Prevalence in hospital

- Prospective observational study
- N = 493; 70 yrs+; 4 acute hospitals (Queensland)
- 29.4% cognitive impairment
- 20.7% dementia (47.7% ≥ 90yrs)
- Delirium at admission
  - 9.7% overall; 23.5% in PWD
- Incident delirium
  - 7.6% overall; 14.7% in PWD

Dementia in NSW Hospitals

- Hospital data 2006/07
- Linked to residential care data
- 252,000 pts, 733,000 episodes
- 20,748 people with dementia
- In 47% episodes, dementia not recorded as primary or secondary diagnosis

Australian Institute of Health and Welfare; Diane Gibson, U Canberra

Costs of dementia care

• 1-in-4 PWD in NSW → hospital in 2006/07
• $462.9m of which 35% ($162.5m) dementia assoc
• LOS: costs of additional bed-days for PWD (NSW) 2006-07 = $45m (35% of all additional bed days)
• Average cost hospital care (Age ≥70)
  – $8,061 higher when dementia was the primary diagnosis (vs. no dementia)
  – $3,659 higher when dementia was an additional diagnosis (vs. no dementia)

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
## Rates common reasons for hospital care (50 yrs+)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Dementia</th>
<th>Without Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal dialysis</td>
<td>9.0%</td>
<td>19.8%</td>
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<tr>
<td>Rehabilitation</td>
<td>6.3%</td>
<td>4.5%</td>
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<tr>
<td>Dementia &amp; other cerebral</td>
<td>5.3%</td>
<td>0.1%</td>
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<tr>
<td>Respiratory infections</td>
<td>4.3%</td>
<td>1.7%</td>
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<tr>
<td>Other factors</td>
<td>4.1%</td>
<td>1.1%</td>
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<tr>
<td>Kidney &amp; UTI</td>
<td>3.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Injuries</td>
<td>2.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Heart failure</td>
<td>2.4%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Digestive system disorders</td>
<td>2.3%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Stroke</td>
<td>2.3%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Reason</th>
<th>Dementia</th>
<th>Without Dementia</th>
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<tbody>
<tr>
<td>Renal dialysis</td>
<td>$605</td>
<td>$512</td>
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<tr>
<td>Rehabilitation</td>
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<td>Respiratory infections</td>
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<td>Heart failure</td>
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<td>Digestive system disorders</td>
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<td>Stroke</td>
<td>$12,209</td>
<td>$9,056</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$7,720</strong></td>
<td><strong>$5,010</strong></td>
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<tr>
<td>Reason for Hospital Care</td>
<td>Dementia</td>
<td>Without Dementia</td>
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<td>----------------------------------------------</td>
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<td>-----------------</td>
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<tr>
<td>Renal dialysis</td>
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<td>Rehabilitation</td>
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<td>Dementia &amp; other cerebral</td>
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<td>Respiratory infections</td>
<td>7 days</td>
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<tr>
<td>Other factors</td>
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<tr>
<td>Kidney &amp; UTI</td>
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<td>Injuries</td>
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<td>1</td>
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<td>Heart failure</td>
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<td>5</td>
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<td>Digestive system disorders</td>
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<td>2</td>
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<tr>
<td>Stroke</td>
<td>9 days</td>
<td>7</td>
</tr>
</tbody>
</table>

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
Complications/comorbidities

Per cent

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
Difficulties within hospital

- High rate of confusion and delirium
- Behavioural and psychological symptoms of dementia (BPSD)
- Falls
- Negative staff attitudes and lack of skills
  - ageism, bias against dementia
  - lack of knowledge, skills, mentoring
- Low rate of identification of cognitive impairment
- Lack of consultation with family
Strategies to improve hospital outcomes for PWD
Strategies outside hospital

• Hospital-in-the-home
  – Acute care in patient’s home for condition that would otherwise require hospital care
  – Benefits for PWD
    • Familiar environment
    • Reduce stress
    • Results in fewer behavioural concerns, less antipsychotic use

Dementia care in hospitals: costs and strategies Canberra: AIHW
Strategies outside hospital

• Services within RACF
  – Special care units
    • Specially trained nursing staff, special programs for people with cognitive impairment
  – Staffing levels & training
  – Aged care nurse practitioners
  – Nursing home doctors (Netherlands model)

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
Strategies outside hospital

- Reducing admissions from RACF
  - Advanced Care Directives
- Services provided to RACF
  - Nursing and physiotherapy services
  - GP services & specialist advice
    - Residential In-Reach (Vic)
    - Aged Care Phone Triage Service (NSW)
  - Dementia Behavioural Management and Advisory Services (DBMAS)

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
Strategies within ED

- 2006-07 1/5 of NSW public hospitals had dedicated ED staff with dementia expertise
  - Mostly Aged Care Services in Emergency Teams (ASETs)
- Aged Care Services Emergency Teams
  - NSW; aim to improve care & management of older people presenting to ED
  - Not dementia specific
- Dementia friendly environment
- Cognitive testing for people at risk

AIHW 2013. Dementia care in hospitals: costs and strategies. Canberra: AIHW.
Strategies to improve hospital care of people with dementia

- Clinical leaders, eg cognition clinical nurse consultants (*limited*)
- Establish network of cognition CNCs (*limited*)
- Ensure every hospital has CNC or access (*limited*)
- Add ‘memory and thinking difficulties’ to admission and preoperative forms (*recommend*)
- Include cognitive function in clinical handover (*recommend*)
- Dementia-friendly environment
Strategies to improve hospital care of people with dementia

- Dedicated nurses in ED to triage and support Confused Older Person (*limited*)
- Discharge Planning from early in admission (?)
- Involve families in care
- National standards on safety and quality to drive change (*recommend*) eg
  - Rates of cognitive assessment
  - Quality of care measures
  - Reduced use of inappropriate medications
  - Adequate discharge arrangements
Strategies to improve hospital care of people with dementia

- Staff training
- Involvement of family in assessment and care
- Screening for cognitive impairment for all patients 75yo +
- Cognitive impairment symbol
- Special care wards for behaviourally disturbed
- Better environmental design for OP
Strategies after hospitalisation

- If going back into community
  - Adequate instructions & support for family
  - If lives alone, may need respite before home
  - Communicate with GP
  - Community Nurse and other supports
  - ComPacks ≤ 6 weeks

- If going to nursing home
  - Communicate with GP and nursing home
  - May need further care in home
  - Rehabilitation
Summary

- Already over half of patients admitted to hospital are > 70y o +
- Ageing population this will increase
- Acute care of people with dementia starts before admission, continues in ED and in wards and after discharge
- Cognitive testing of people at risk
- Training, education, attitudes
- Involvement of family
Thank you

www.dementiaresearch.org.au