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

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

Australia: Population

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  - 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
  - Intermediate
  - ≤ 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 \(\rightarrow\) 1.8%\(^2\) (or \(? 3\)%
GDP by 2050

\(^1\) Access Economics (2009) Front of Mind www.alzheimers.org.au
\(^2\) 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 40yrs;
- 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'd
- 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>
</tr>
<tr>
<td>Rehabilitation</td>
<td>6.3%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Dementia &amp; other cerebral</td>
<td>5.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>4.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other factors</td>
<td>4.1%</td>
<td>1.1%</td>
</tr>
<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>

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

Average cost by reason 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>$605</td>
<td>$512</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>$13,693</td>
<td>$9,839</td>
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<tr>
<td>Respiratory infections</td>
<td>$7,342</td>
<td>$5,616</td>
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<tr>
<td>Other factors</td>
<td>$12,471</td>
<td>$6,060</td>
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<tr>
<td>Kidney &amp; UTI</td>
<td>$5,394</td>
<td>$4,304</td>
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<tr>
<td>Injuries</td>
<td>$3,515</td>
<td>$2,579</td>
</tr>
<tr>
<td>Heart failure</td>
<td>$7,153</td>
<td>$5,555</td>
</tr>
<tr>
<td>Digestive system disorders</td>
<td>$4,333</td>
<td>$2,534</td>
</tr>
<tr>
<td>Stroke</td>
<td>$12,209</td>
<td>$9,056</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$7,720</td>
<td>$5,010</td>
</tr>
<tr>
<td>Reason for Hospital Care</td>
<td>Dementia</td>
<td>Without Dementia</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Renal Dialysis</td>
<td>0 days</td>
<td>0</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>14 days</td>
<td>8</td>
</tr>
<tr>
<td>Dementia &amp; Other Cerebral</td>
<td>11 days</td>
<td>17</td>
</tr>
<tr>
<td>Respiratory Infections</td>
<td>7 days</td>
<td>6</td>
</tr>
<tr>
<td>Other Factors</td>
<td>11 days</td>
<td>3</td>
</tr>
<tr>
<td>Kidney &amp; UTI</td>
<td>6 days</td>
<td>4</td>
</tr>
<tr>
<td>Injuries</td>
<td>2 days</td>
<td>1</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>6 days</td>
<td>5</td>
</tr>
<tr>
<td>Digestive System Disorders</td>
<td>3 days</td>
<td>2</td>
</tr>
<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

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)

**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

**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
  - Com Packs \( \leq \) 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 > 70yo+
- 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