Acute Care Unit in France
10 years and 6299 hospitalizations

Pr Sandrine Andrieu
UMR Inserm U1027, CHU Toulouse
Acute care unit in Toulouse

- 20 beds, in 2 sections
- 8 beds for « quiet » patients and 12 beds for severe patients and those with behavioral disturbances

Multidisciplinary Team
- 2 Geriatricians (1 senior, 1 junior),
- Physicians consultants (neurologist et psychiatrist),
- 2 Nurses and 4 assistant-nurses
- 1 art-thérapeut.
- Access to kinésithérapeutist, dieteticians, neuropsychologist and social assistant
Acute care unit in Toulouse

- Unit of continuous care

- 3 missions:
  - Diagnosis if difficult cases
  - Management of acute complications
  - Treatment of intercurrent pathologies

- Trained persons for « crisis situations »

- Information, education and support for families
Complications in AD are responsible for acute hospitalizations and emergency hospitalization

De 26.9% à 30% emergency hospitalisation/year

Reason of admission in emergency: behavior problems (26.3%) and falls (18.6%)

Problems linked to hospitalization: duration, infections, iatrogeny, burn out of the staff...

Nourhashémi et al, Alzheimer Dis Assoc Disord, 2001

Agüero-Torres et al, Int J Ger Psy, 1998; Balardy et al, JNHA, 2005

Fillenbaum et al, Neurology, 2000
Population

- All consecutive patients hospitalized between 1er January 1996 and 31 December 2006

Assessment at baseline

- Mini-Mental State Examination (MMSE)
- Autonomy (ADL):
  - independant (1 point), with help (0.5 points), et inability (0 point).
- Nutritional Status (MNA)
- Behavioral trouble (yes/no)
- Reason of admission
  - diagnosis, behavioral troubles, falls, gait problem, social issue, nutritional problem, intercurrent pathology
Results

Between 1996 and 2006

6299 hospitalizations

- In 4.7%, patients were admit one time during the periode
- In 17.0%, patients were admit twice during the periode
- In 5.2 %, patients were admit 3 times during the periode
- In 1.8%, patients were admit 4 times during the periode
- In 1.3%, patients were admit 5 and + times during the periode
**Description of the population**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women</strong></td>
<td>63.9%</td>
</tr>
<tr>
<td><strong>Âge</strong></td>
<td>80.5 ± 7.9</td>
</tr>
<tr>
<td><strong>ADL</strong>*</td>
<td>4 [2-5.25]</td>
</tr>
<tr>
<td><strong>MMSE</strong></td>
<td></td>
</tr>
<tr>
<td>mmse &gt;21</td>
<td>18.4%</td>
</tr>
<tr>
<td>mmse 15-21</td>
<td>24.0%</td>
</tr>
<tr>
<td>mmse &lt;15</td>
<td>57.6%</td>
</tr>
<tr>
<td><strong>MNA</strong></td>
<td></td>
</tr>
<tr>
<td>normal</td>
<td>14.4%</td>
</tr>
<tr>
<td>at risk</td>
<td>53.7%</td>
</tr>
<tr>
<td>denutrition</td>
<td>31.9%</td>
</tr>
<tr>
<td><strong>Coming from...</strong></td>
<td></td>
</tr>
<tr>
<td>own home</td>
<td>68.4%</td>
</tr>
<tr>
<td>institution</td>
<td>26.2%</td>
</tr>
<tr>
<td>other</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

*mediane*
Origin of subjects (at entry in the SCU)

<table>
<thead>
<tr>
<th>Year</th>
<th>Own home</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reason of admission

- Complications: 46%
- Diagnosis: 32%
- Intercurrent pathology: 13%
- Others: 9%
Evolution of the reason of the first Hospitalization

Figure 1. Evolution of causes of acute admission among first-time hospitalisations in the Special Acute Care Unit (N = 4708).

$\chi^2$ for trend $P < 0.001$
Evolution of the reason of the first Hospitalization

Figure 1. Evolution of causes of acute admission among first-time hospitalisations in the Special Acute Care Unit (N = 4708).

$\chi^2$ for trend $P < 0.001$
Evolution of the reason of the first Hospitalization linked to a complication

χ² for trend P < 0.001

- BPSD
- falls and gait disorders
- others*

Frequency (%)
Evolution of the reason of the first Hospitalization linked to a complication

χ² for trend P < 0.001

- BPSD
- falls and gait disorders
- others*
Type of behavioral trouble

Figure 3: Causes of acute admission among first-time hospitalisations in the SACU due to behavioural and psychological symptoms (n = 1007)
Conclusion

- In 10 years:
  - Increase of behavioral troubles (aggressiveness from 15% to 28%)
  - Increase of duration of the hospitalization from 6 to 11.5 days

- In 10 years:
  - Olders, from 79 to 82 years (mean)
  - Dependants: loss of points in ADL
  - More severe cognitive impairment (+ 5% of severe)
  - Nutritional problems: from 20% to 35% of denutrition
Discussion

Evolution of the health services in 10 years

- SCU
- National plans of AD
- Unit for behavior (UCC)
- Set up of a national network of memory centers (for diagnosis)
Consequences...

- Set up in the unit of a more securized section (needs change)
- Since 2008 follow up after hospitalization (phone call)
- Set up of a new unit for behavior (UCC)
Conclusions

- **Paper published**

Original Study

Improving Care of Older Adults With Dementia: Description of 6299 Hospitalizations over 11 Years in a Special Acute Care Unit

Maria E. Soto MD a,c,*, Sandrine Andrieu MD, PhD a,b,c, Hélène Villars MD a, Marion Secher MD a, Virginie Gardette MD b,c, Nicola Coley PhD c, Fati Nourhashemi MD, PhD a,c, Bruno Vellas MD, PhD a,c

a Department of Geriatric Medicine, Gérontopôle de Toulouse, Toulouse University Hospital, Toulouse, France
b Department of Epidemiology and Public Health, Toulouse, France
c Inserm Unit 1027, University Toulouse III, Toulouse, France