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Czech Alzheimer's population

Characteristics of hospitalized patients

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Outline

1. Alzheimer's disease (AD) in a nutshell
2. AD in the Czech Republic
3. Hospitalization



What is Alzheimer's disease?

- Neurodegenerative disease, most common form of dementia
- Cause of cognitive impairment
- Symptoms are loss of memory and ability to perform daily activities independently
- Increasing trend due to population aging
- No cure available, treatment slows down disease progression



AD in the Czech Republic

- 150,000 people suffering from dementia, about 60% from AD
- 26% of patients use outpatient health care
- 25% live in nursing homes
- 6% of patients use inpatient health care
 - About 1/2 of patients admitted for hospitalization with moderate or severe cognitive impairment was never diagnosed or treated



Costs of AD in the Czech Republic

- Expected lifetime costs for 70-year-old woman: EUR 273,995
 - Medication EUR 725
 - Outpatient care EUR 137
 - Indirect costs EUR 273,133
 - 3.6/ 2.5/ 4.7 years living with mild/ moderate/ severe dementia
- Hospitalization was not considered
- Simple hazard ratio 2.1 applied to life tables



Research question and data

- What is the hospitalization pattern?
 - Age at (first) hospitalization
 - Duration of hospitalization
 - Number of rehospitalizations
 - Age at death
- Cohort analysis of patients firstly hospitalized in 2000
- National Register of Hospitalized Patients + National Causes of Death Register
- 1224 patients with G30.x primary diagnosis
- 1702 (re)hospitalizations



First hospitalization

Cohort	n	Share (%)	Age at hospitalization (years)		Age at death (years)		Duration (days)	
			mean	median	mean	median	mean	median
All	<u>1224</u>		77.5	77	79.5	79	<u>117.5</u>	<u>30</u>
<i>Gender</i>								
Men	389	32	<u>75.5</u>	76	<u>77</u>	77	102.5	28
Women	835	68	<u>78.5</u>	78	<u>80.5</u>	80	124.5	33
<i>Diagnosis</i>								
G30.0	90	7.5	66.5	65	69.5	69.5	157	25
G30.1	552	<u>45</u>	79	79	81	80	122.5	33
G30.8	312	25.5	79	78	81	80	154	43
G30.9	270	22	76.5	76	78	78	<u>51</u>	17.5
<i>Hospital</i>								
UH	50	4	75	77	76	77.5	27.7	16
GH	220	18	75	75	77.5	77	21	11.5
PH	766	<u>62.5</u>	78	78	80	80	<u>162.5</u>	47
LTC	129	10.5	79.5	79	81	81	69.5	37
Others	59	5	–	–	–	–	–	–



Rehospitalizations

	n	Share (%)	Age at hospitalization (years)		Age at death (years)		Duration (days)	
			mean	median	mean	median	mean	median
All hospitalizations	<u>1702</u>		<u>76.5</u>	76	78,5	79	122	32
First only	<u>939</u>	55	78,5	78	80	80	<u>127.5</u>	34
Rehospitalizations...	<u>763</u>	45	74	75	77	77	<u>115.5</u>	31
<i>...In detail</i>								
One rehospitalization	285	17	74.5	75	77	78	91	25
Second	285	17	75.5	76	77	78	<u>145</u>	35
Third	106	6	75	75	77	77	125	30
> 3	87	5	73	75	76	76	89.5	42
<i>Gender</i>								
Men	248	32.5	73.5	75	<u>75</u>	76	100	28
Women	515	67.5	75.5	76	<u>78</u>	78	123	32
<i>Diagnosis</i>								
G30.0	108	14	63	63	66	65	111	19.5
G30.1	297	39	78	77	80	79	110	34
G30.8	145	19	77.5	77	80.5	79	199	47
G30.9	213	28	74	75	76	76	69	21
<i>Hospital</i>								
UH	32	7	71.5	70	72.5	71	32	17
GH	129	27	75	76	77	77	85	34
PH	251	<u>52.5</u>	75	76	77	77	<u>180.5</u>	37
LTC	35	7.5	76,5	75	77.5	76	84	36
Others	31	6	–	–	–	–	–	–



Further research

- Life tables
- Cost analysis



Questions?

Thank you for your attention!

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