

Payers Perspective on Results of Clinical Trials in Alzheimer's Disease

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Who is the payer?

- The tax payer who finance health care
- The health politician who acts as an agent for the tax payer
- The health care provider that use the product as an input and pays the bill from the drug company
 - In Sweden the national pharmacy pays the bill
 - National pharmacy reimbursed from the county council
 - Different levels of payers within the county council
 - Hospitals, ambulatory care units
 - Organisation varies (decentralized budget responsibility)

Payment and reimbursement

- The body making the reimbursement decision is seldom the payer
 - Example: in Sweden TLV is making reimbursement decisions and the county councils are responsible for payments
 - Many agencies are providing information for payment decisions
 - NICE, IQWiG, TC
 - Link to payment decision may be more or less strong
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Criteria for assessment applied by HTA agencies

<i>Criteria</i>	<i>AT⁴</i>	<i>BE</i>	<i>CH</i>	<i>DE</i>	<i>FI</i>	<i>FR</i>	<i>NL</i>	<i>NO</i>	<i>SE</i>	<i>UK</i>
Therapeutic benefit	X	X	X	X	X	X	X	X	X	X
Patient benefit	X	X	X	X	X	X	X	X	X	X
CE	X	X			X		X	X	X	X
Budget impact		X			X	X	X	X		X
Pharmaceutical/innovative characteristics	X	X				X	X			X
Availability of therapeutic alternatives	X						X		X	X
Equity considerations								X	X	X
Public health impact						X				
R&D					X					

Source: European Observatory on Health Systems and Policies, 2008

Overview of P&R systems

	Ex ante				Ex post			
	free pricing / immediate reimbursement	pricing relative to substitute	IRP	PVA / rebates	price cuts	profit controls	pricing relative to substitute	IRP
Australia		✓		✓			✓	
Canada		✓*	✓**					✓
Finland		✓	✓		✓		✓	✓
France		✓	✓**	✓	✓		✓	
Germany	✓			✓			✓	
Netherlands		✓	✓				✓	✓
Spain		✓	✓	✓	✓		✓	
Sweden		✓					✓	
Switzerland		✓	✓				✓	✓
UK	✓ ⁴⁸				✓	✓		
US		✓		✓			✓	

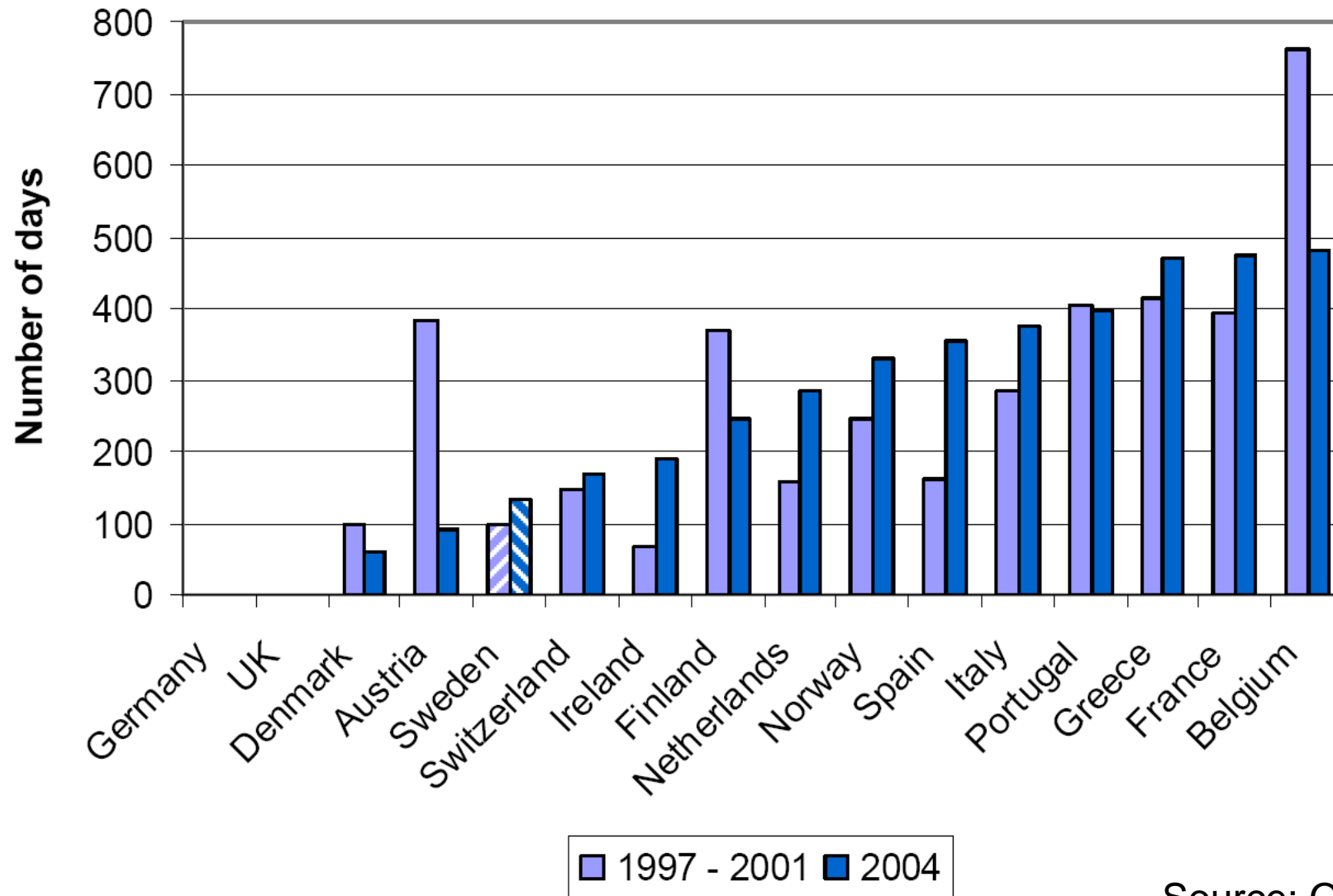
*non-innovative drugs ** innovative drugs

IRP: International Reference Pricing

PVA: Price Volume Agreements

Source: Office of Fair Trade, UK, 2007

Average time from P&R application to reimbursement



Source: OECD, 2007

Country	Donepezil		Rivastigmine		Galantamine		Memantine	
	Authorized	Reimbursed	Authorized	Reimbursed	Authorized	Reimbursed	Authorized	Reimbursed
Austria	yes	yes	yes	yes	yes	yes	yes	yes
Belgium	yes	yes	yes	yes	yes	yes	yes	yes
Bulgaria	yes	no	yes	no	yes	no	no	no
Cyprus	yes	yes	yes	yes	yes	yes	yes	yes
Czech Rep.	yes	yes	yes	yes	yes	yes	yes	yes
Denmark	yes	yes	yes	yes	yes	yes	yes	yes
Estonia	yes	yes	yes	no	yes	yes	yes	yes
Finland	yes	yes	yes	yes	yes	yes	yes	yes
France	yes	yes	yes	yes	yes	yes	yes	yes
Germany	yes	yes	yes	yes	yes	yes	yes	yes
Greece	yes	yes	yes	yes	yes	yes	yes	yes
Hungary	yes	yes	yes	yes	no	no	yes	yes
Iceland	yes	yes	yes	yes	yes	yes	yes	yes
Ireland	yes	yes	yes	yes	yes	yes	yes	yes
Italy	yes	yes	yes	yes	yes	yes	yes	no
Latvia	yes	no	yes	no	yes	no	yes	no

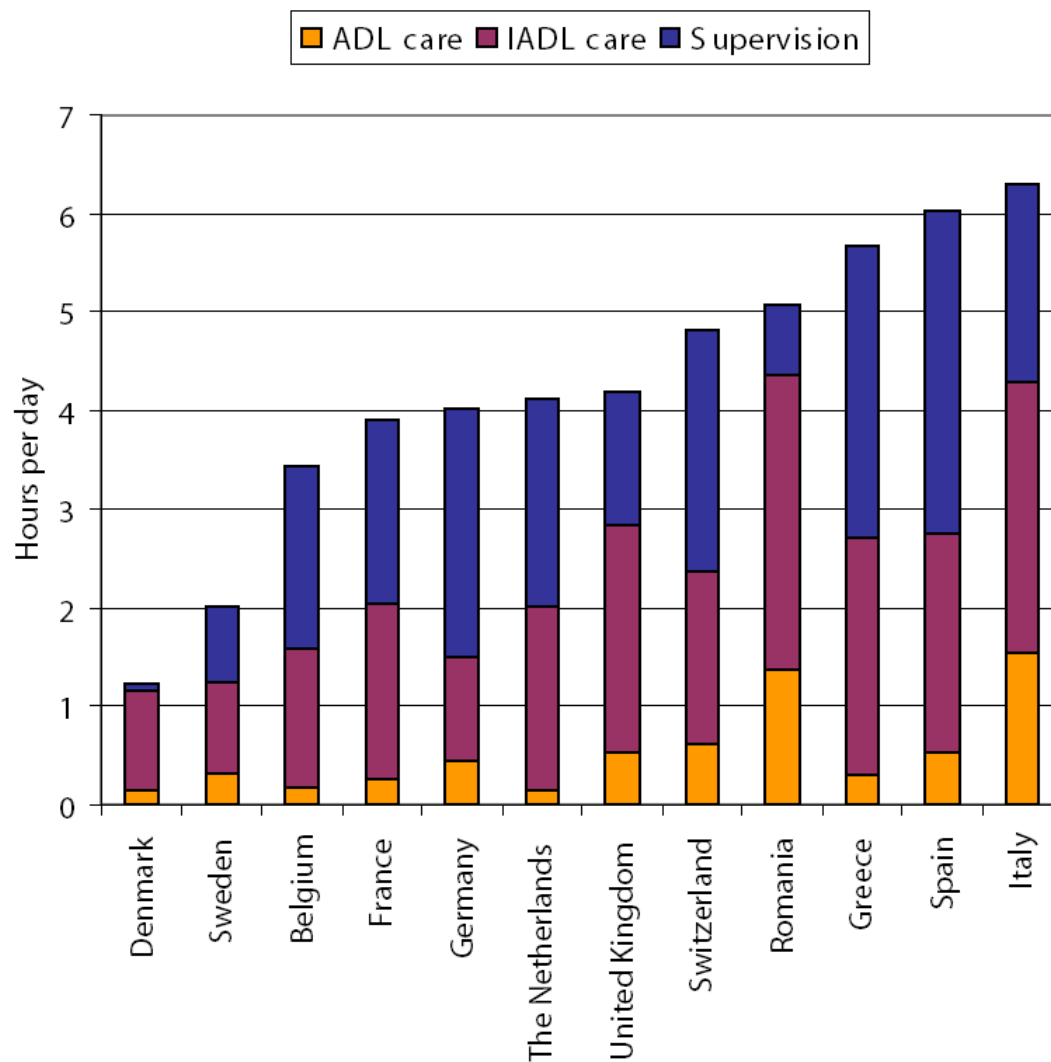
- Modeling
 - Current models inadequate
 - Models based solely on cognition dismissed.
 - Adopted model based on delay of full-time care
 - Trial-based economic evaluations assigned low priority vs model studies
 - Responder analysis
 - Dismissed due to unconvincing data
 - Subgroup analysis
 - Cost-effectiveness in moderate vs mild disease
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- Published evaluations
 - Donepezil in mild to moderate AD (Wimo et al, 2003)
 - Donepezil in moderate to severe AD (Feldman et al, 2004)
 - Memantine in moderate to severe AD (Wimo et al, 2003)
 - All indicate cost savings (statistical significance only for memantine)
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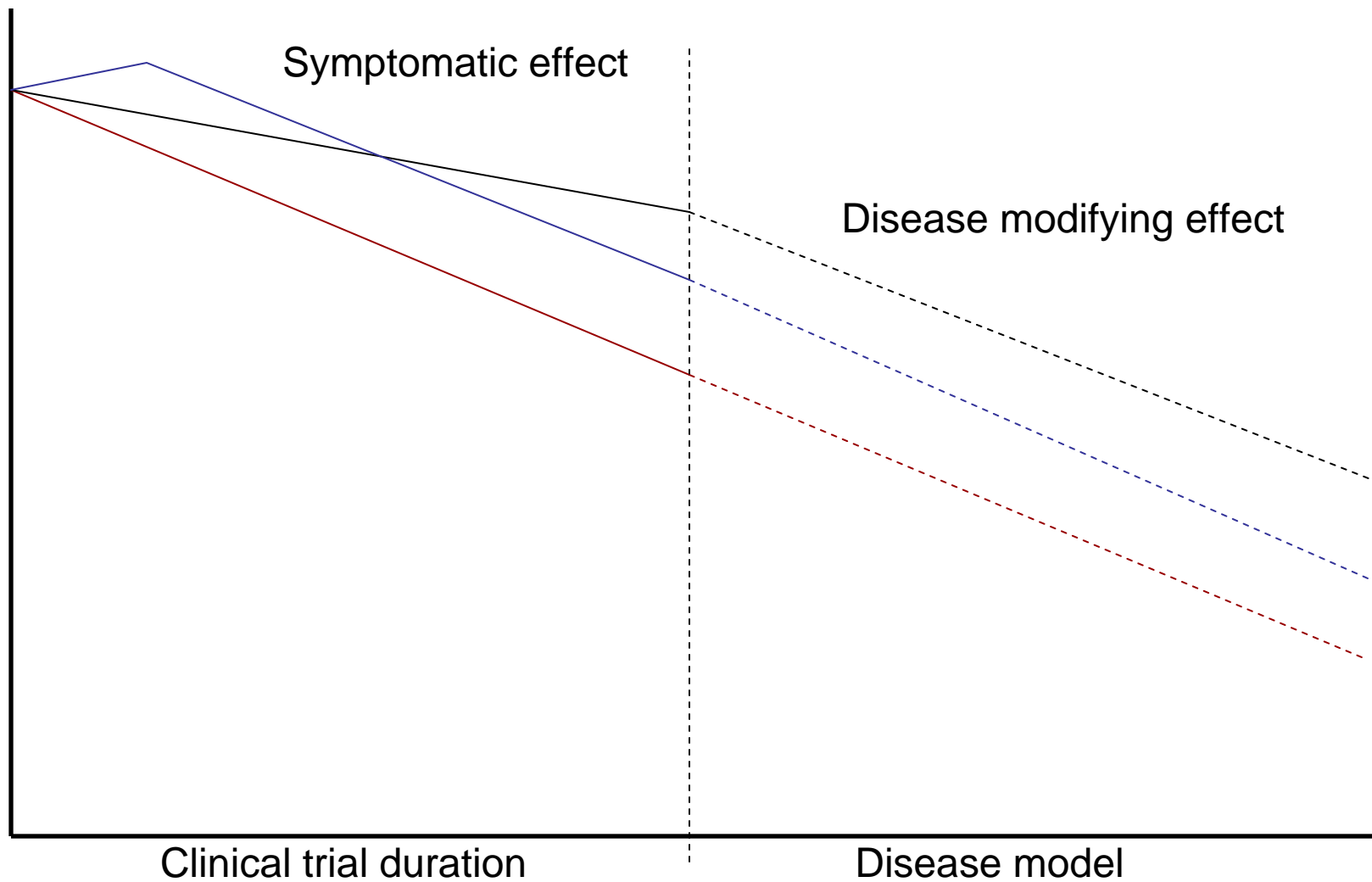
Annual costs of care by disease severity (€2005 PPP)

Reference	Country	N	Mild dementia	Moderate dementia	Severe dementia	All subjects
Scuvee-Moreau [7]	Belgium	386	6 974	11 538	23 484	14 673
Souetre 1995 [8]	France	51	4 783	n/a	7 792	6 140
Rigaud [9]	France	50	6 339	15 961	53 574	22 959
Schulenberg [19]	Germany	158	3 673	10 120	19 446	12 040
Cavallo [10]	Italy	423	n/a	n/a	n/a	52 406
Trabucchi [11]	Italy	103	n/a	n/a	n/a	28 691
Kronborg Andersen [12]	Denmark	245	10 113	15 058	22 521	10 752
Jönsson 2006 [13]	Nordic	272	4 953	15 013	30 581	14 038
Jönsson 1999 [24]	Sweden	70	4 942	20 561	40 180	27 236
Francois [25]	Finland	137?	7 670	9 265	16 398	33 333
Boada [15]	Spain	337	18 311	23 522	31 759	27 595
Atance Martinez [14]	Spain	337	n/a	n/a	n/a	30 525
Souetre 1999 [16]	UK	128	41 982	65 041	86 254	64 426
Wolstenholme [17]	UK	100	13 488	22 169	36 132	32 468
Livingston [18]	UK	224	n/a	n/a	n/a	35 287

Informal care time (hours per day) by country



Function



Endpoints

- Total resource utilization and cost
- Health-related quality of life
- Full-time care
- Institutionalization
- Dependency

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RUD: informal care

Caregiver

1. Are there any other informal caregivers?

1. Yes
2. No

2. If yes, among all informal caregivers what was your level of contribution the last month?

1. 20%-40%
2. 41%-60%
3. 61%-80%
4. 81%-99%

Sleep

3. During the last month, how much time per day and night did you spend asleep?

In total _____ hours and _____ minutes per day and night

Personal Activities in Daily Living (ADL)

4. On a typical care day during the last month (when you provided support to the patient), how much time per day did you assist the patient with personal tasks such as toilet visits, eating, dressing, grooming, walking, and bathing?

In total _____ hours and _____ minutes per day

5. During the last month, how many days did you spend providing these services to the patient?

In total _____ days

RUD: informal care (cont.)

Instrumental ADL

1. On a typical care day during the last month (when you provided support to the patient), how much time per day did you assist the patient with tasks such as shopping, food preparation, housekeeping, laundry, transportation, taking medication, and managing financial matters?

In total _____ hours and _____ minutes per day

2. During the last month, how many days did you spend providing these services to the patient?

In total _____ days

Supervision

3. On a typical care day during the last month (when you provided support to the patient), how much time per day did you spend supervising the patient (i.e. preventing dangerous events)?

In total _____ hours and _____ minutes per day

4. During the last month, how many days did you spend providing this service to the patient?

In total _____ days

Please make sure the stated sum of time spent does not exceed the maximum number of hours in a month with 30 days (=720). If needed, the table below can be used to calculate the total number of hours stated.

- Total resource utilization and cost
- Health-related quality of life
- Full-time care
- Institutionalization
- Dependency

- No generally accepted methodology for assessing HRQoL in dementia
 - Discrepancies in patient-reported vs caregiver-reported HRQoL
 - Lack of correlation with disease severity
 - Disease-specific instruments have not been linked to utilities (for calculation of quality adjusted life years, QALYs)
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- Heterogeneous concept with international variations
 - Typically low rate in clinical trials vs. in practice
 - Multifactorial effects behind decision to institutionalize
 - Patients drop out at institutionalization – costs are not captured within trial
 - Late-stage event, not relevant in mild disease
 - Treatment efficacy can have consequences before as well as after institutionalization
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Dependency

- What care the patient ‘needs’ vs. what care the patient receives
- Subjective vs. objective component of caregiver burden
- Dichotomous vs. continuous measure



- Reimbursement key to patient access.
Increasing influence of HTA on reimbursement decisions
- Clinical trials complemented with modeling based on local data to support reimbursement
- Changes in P&R environment
 - Risk-sharing schemes
 - Value-based pricing? (e.g. OFT, 2007)