

PRESCRIPTION CHANGES DURING GERIATRIC CARE EPISODES

A trend analysis

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- 2005, 2010, 2015
- Prescription changes during care episodes and over time
- Factors potentially contributing to such changes

What does a geriatrician do?

- "Terminates all drug treatment"?
- "Inserts too many additional drugs"?
- "Optimizes drug treatment for every individual"?

Crucial issues

- Differences between prescribed drugs at admission and discharge
- Improvements? During the care episode – over the years?
- How do we measure this?
- What determines such differences?
 - Comorbidity? Age? Sex? Number of drugs? Length of care episodes?

Warranted: Outcome measure(s)!?

- Relation to guidelines? – not appropriate
- Relation to quality indicators of the Swedish National Board of Health and Welfare? – not appropriate
- Number of drugs? – not appropriate
- Prescription changes?
 - such as at discharge remaining changes of regularly used drugs

Prescription changes

- Positive
 - Sign of expressed ambition
 - Sign of expressed activity
 - Indicating enhanced sensitivity
- Negative
 - Not yet validated

Corroborating prescription changes as outcome measure by the use of IDU-index

- IDU (inappropriate drug use) index

based on six indicators from the Swedish National Board of Health and Welfare:

- Longacting benzodiazepines
- More than three psychotropic drugs
- Drug doubling
- Anticholinergic drugs
- C-interactions
- D-interactions

Correlation prescription changes - IDU-index

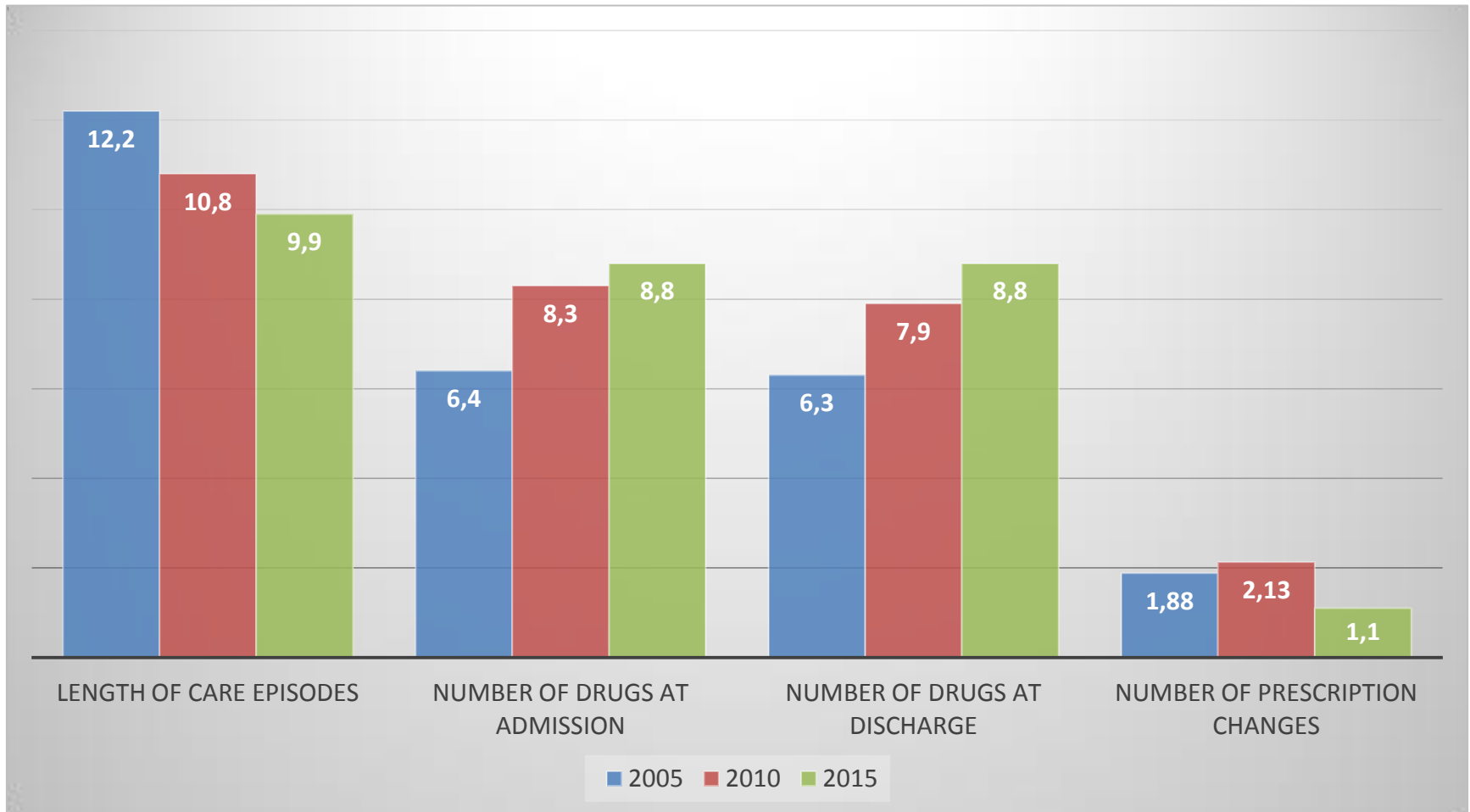
<i>Correlation with prescription changes</i>	Coefficient	SD	p-value	95% KI
Change in IDU-index	0.570	0.203	0.005*	0.171 – 0.969

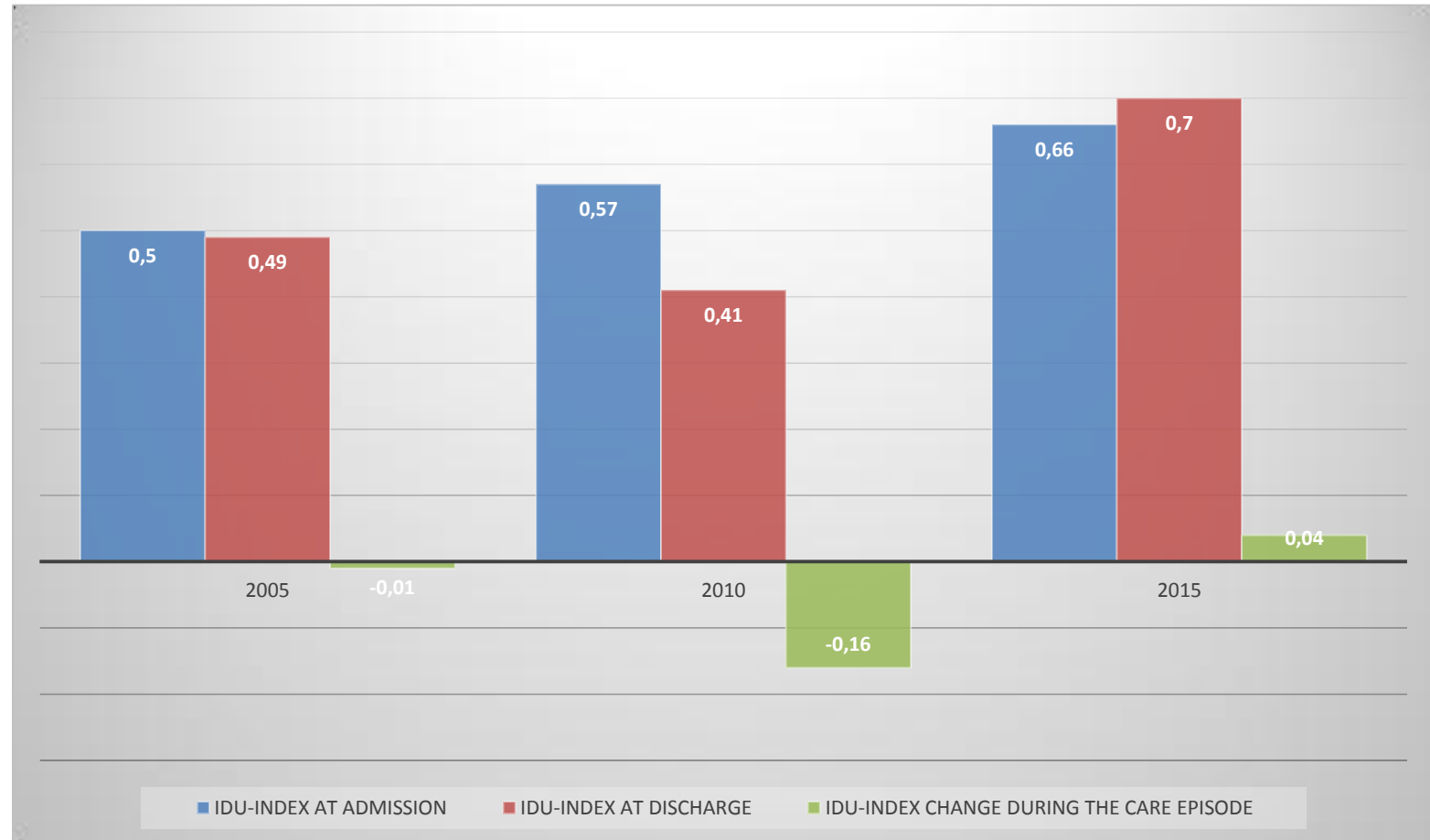
Warranted: the archetypical geriatric patient

- Diagnostic choice pneumonia
 - Justification:
 - prevalent, wide range of older individuals
- Inclusion criteria
 - All patients with main diagnosis pneumonia in one geriatric clinic in Stockholm
 - Pneumonia related treatment excluded

The patients

Year of inclusion	2005	2010	2015
n	146	134	140
Age, years, mean	84,3	85,2	84,0
Proportion females, %	54,8	53,0	57,1
Comorbidity, Charlson	1,9	2,2	2,4





Changes 2005, 2010, 2015

- Increased number of comorbidities
- Increased number of drugs at admission and discharge
- Shorter care episodes
- Fewer prescription changes

Changes during a geriatric care episode

- Improvement 2005 and 2010 assessed by the IDU-index
- Detoriation 2015 assessed by the IDU-index

Regression analysis: 1 factor

- Age – **NO**
- Sex – **NO**
- Number of drugs at admission – **NO**
- Comorbidity – 2015 YES, totally – **NO**

- Length of care episode – **YES**

Correlation between prescription changes and length of care episodes

<i>Correlation with prescription changes</i>	Coefficient	SD	p-value	95% KI
Length of care episode	0.073	0.012	0.000*	0.050 – 0.097

Shorter length of care episode,
fewer drug changes –

but decreasing quality?

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CONFLICT OF INTEREST DISCLOSURE

I have no potential conflict of interest to report