

Contribution to the 4th Jerusalem Conference
on Health Economics

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Physicians Prescription Behavior - Do Financial Incentives Affect Choice?

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Introduction & Motivation

Definition: Physician-dispensing (*PD*): Physicians prescribe **and** sell drugs on their own account.

Regulation: PD is allowed in some Swiss counties.

Advantages: Immediate access to drugs, increased choice and competition among providers.

Drawbacks: Financial incentives could lead to suboptimal medication.

Research questions

- Does PD influence the choice between generic and brand-name drugs?
- Does the patient's financial burden influence the physician's decision?

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Hypothesis 4: Contributing to the social goal of cost-efficient health care might provide an additional motivation for prescribing the cheaper generic drug.

Not testable, but shown in descriptive statistics.

Data - Overview

- Data by CSS, insures approx. 15 percent of Swiss population.
- Drug purchases between 2005 and 2007
- Three active agents, often prescribed and well tolerated
- Co-payment: 10%, 20% for brand-name since Jan 2006
- Control variables:

Region: dummies for 26 cantons, 9 community types

Patient: age, gender, deductible, type of coverage

Drug: dosage, number of pills.

Omeprazole

RE logit, Dep. Var = 1 if generic

Model 1

Model 2

OR

SE

OR

SE

Omeprazole

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Deductible 500	1.37***	(0.04)	—	
Deductible 1000	2.67***	(0.56)	—	
Year 2006	3.16***	(0.08)	2.90***	(0.09)
Year 2007	3.71***	(0.10)	3.09***	(0.10)
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PD · Year 2006	—	—	1.23**	(0.07)
Affluent Community	0.46***	(0.10)	0.46***	(0.10)
Cov. for private room in hospital	0.66***	(0.02)	0.67***	(0.19)

199,065 Observations, 7,522 physicians

Model 1: \mathcal{L} -37,410 Share of Error Var. Physician Specific 0.73

Model 2: \mathcal{L} -37,417 Share of Error Var. Physician Specific 0.73

Amlodipine

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Physician Dispensing (PD)	2.47 ***	(0.25)	3.27***	(0.19)
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Deductible (in 100)	-	-	1.02***	(0.01)
Deductible · PD	-	-	1.00***	(0.01)
Year 2006	22.50***	(0.53)	18.33***	(0.51)
Year 2007	23.76***	(0.57)	19.58***	(0.56)
PD · Year 2006	—	—	1.01**	(0.05)
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Prepaid HMO contract	1.88***	(0.23)	1.84***	(0.22)
Family-doctor contract	1.72***	(0.10)	1.71***	(0.10)

147,234 Observations, 6,016 physicians

Share of Error Variance Physician Specific 0.6

Concluding Remarks

Summary

- PD markedly increases the use of generic drugs.
- Generic drugs are prescribed more often to poorer and high-copayment patients.
- Marked effect of increased co-payment (20%) for brand-name drugs.

Conclusions

- Financial incentives of physicians matter for drug choice
- Physicians show consideration for patients' financial burden

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The views expressed here are those of the authors and do not necessarily reflect the positions of CSS Insurance Company.