

## Prescribing drugs in primary health care; thoughts, information strategy and outcome

Akademisk avhandling  
för medicine doktorsgraden vid Sahlgrenska Akademin vid  
Göteborgs Universitet kommer att offentligens försvaras i  
hörsal Arvid Carlsson, Medicinargatan 3, Göteborg  
Fredagen den 19 oktober 2012 klockan 9.00

av

Allmänläkare  
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Avhandlingen baseras på följande delarbeten:

- I Skoglund I, Segesten K, Björkelund C; GPs' thoughts on prescribing medication and evidence based knowledge: the benefit aspect is a strong motivator. A descriptive focus group study. *Scandinavian Journal of Primary Health Care*, 2007, Vol.25, No.2, Pages 98–104 (doi:10.1080/02813430701192371)
- II Skoglund I, Björkelund C, Mehlig K, Gunnarsson R, Möller M; GPs' opinions of public and industrial information regarding drugs: a cross-sectional study. *BMC Health Services Research*, 14726963, 2011, Vol. 11, Issue 1, pages 204, open access.
- III Skoglund I, Björkelund C, Gunnarsson R, Möller M; Can motivational interviewing in drug information using benefit aspects influence general practitioners' attitudes to the information? A randomised controlled trial. Submitted.
- IV Skoglund I, Björkelund C, Petzold M, Gunnarsson R, Möller M; A comparison between two types of evidence-based drug information provided to GPs: a randomised controlled trial. Submitted.

Tillstånd för återgivande av artikel I har inhämtats från tidskriften.  
Artikel II finns i open-access.



## **Prescribing drugs in primary health care; thoughts, information strategy and outcome**

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### **Abstract**

**Aims:** General aim; to investigate whether tailored evidence-based drug information provided to general practitioners can be implemented more effectively than evidence-based drug information provided as usual. Specific aims; to describe general practitioners' (GPs) thoughts on prescribing medication and evidence-based drug information: to explore GPs' attitudes on drug information: to investigate whether tailored evidence-based drug information can influence these attitudes differently or the prescribing behaviour more effectively than drug information provided as usual.

**Methods:** Focus-group interviews with a descriptive qualitative approach (I), a cross sectional survey using an attitude questionnaire analysed in a multilevel mode and by multiple logistic regression (II), and a randomised controlled study (RCTs, III and IV) were used. In the two latter medical information officers (MIOs) providing drug information to GPs were matched pair-wise and randomised into intervention or control groups. The GPs were cluster randomised by their MIOs. The intervention MIOs were trained to provide evidence-based drug information tailored with motivational interviewing and to focus on the benefit aspect. The control MIOs provided evidence-based drug information as usual. Data was collected by an attitude questionnaire (III), analysed by the Mann-Whitney test and intention-to-treat. Prescriptions for antihypertensive drugs were collected (IV). The change in proportion of ACE inhibitor prescriptions relative to the sum of ACE inhibitors and Angiotensin II receptor blockers, during 0–3 and 4–6 months after the intervention, was analysed with multiple linear regression, by intention-to-treat and per protocol.

**Results:** GPs thoughts on prescribing medication and on evidence-based medicine dealt much with benefit. The core category 'prompt and pragmatic benefit' was the utmost benefit (I). A majority of the GPs perceived the information from the industry as too excessive; that the main task of the industry was to promote sales. The quality of public information was regarded as high and useful. Female GPs valued public information to a much greater extent than did male GPs (II). The changes in attitudes to drug information did not differ between the two groups (III). Information was given to 29% of GPs in both groups (IV). The GPs' average change in proportion of prescribed ACE inhibitors increased in both groups after the intervention.

**General conclusions and implications:** GPs' thoughts on evidence-based drug information and prescribing medication relates predominantly to 'prompt and pragmatic benefit'; delivered immediately, useful and handy. Female GPs valued public drug information much more than male GPs did, which might be useful to know in future implementation. GPs' attitudes on drug information did not differ between the groups after the intervention. Neither did the change in proportion of prescribed ACE inhibitors differ. This indicates no benefit in using tailored evidence-based drug information compared to drug information provided as usual.

**Keywords:** Utilitarianism, prescribing medication, evidence-based medicine, general practitioner, pharmaceutical therapy, guide lines, drug information services, primary health care, multilevel models, pharmaceutical industry, attitudes, behaviour, public authority drug information, prompt and pragmatic benefit, drug and therapeutic committee, implementation.