

# Register-based evaluation of primary care

## Focus on chronic disease

### AKADEMISK AVHANDLING

Som för avläggande av medicine doktorexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligens försvaras i hörsal Arvid Carlsson, Medicinaregatan 3, Göteborg, den 11 oktober 2019, klockan 09.00

av Helena Ödesjö

Fakultetsopponent:

Professor Per Wändell, Karolinska institutet, Stockholm, Sverige

### Avhandlingen baseras på följande delarbeten

- I. Ödesjö H, Anell A, Gudbjörnsdóttir S, Thorn J, Björck S. Short-term effects of a pay-for-performance programme for diabetes in a primary care setting: an observational study, *Scand J Prim Health Care*. 2015 Dec;33(4):291-7.
- II. Ödesjö H, Anell A, Boman A, Fastbom J, Franzén S, Thorn J, Björck S. Pay for performance associated with increased volume of medication reviews but not with less inappropriate use of medications among the elderly - an observational study. *Scand J Prim Health Care*. 2017 Sep;35(3):271-278.
- III. Ödesjö H, Adamsson Eryd S, Franzén S, Hjerpe P, Manhem K, Rosengren A, Thorn J, Björck S. Visit patterns at primary care centres and individual blood pressure level – a cross-sectional study. *Scand J Prim Health Care*. 2019 Mar;37(1):53-59.
- IV. Ödesjö H, Björck S, Franzén S, Hjerpe P, Manhem K, Rosengren A, Thorn J, Adamsson Eryd S. Better adherence to lipid-lowering guidelines for secondary prevention may lead to a substantial reduction of cardiovascular events. Submitted.

# Register-based evaluation of primary care

## Focus on chronic disease

Helena Ödesjö

Department of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska academy, University of Gothenburg, Sweden, 2019.

### Abstract

**Background:** Options for following up primary care at the regional level have increased in Sweden, partly as a result of a national reform in 2009. In Region Västra Götaland (VGR) this was the starting point for a quality initiative with about 100 indicators, using extensive healthcare registers.

**Aim:** To perform a register-based evaluation of aspects on chronic disease management in primary care after the primary care reform in VGR.

**Patients and methods:** The four studies were based on individual patient data from national and regional health data and quality registers. In **Studies I and II**, effects of pay for performance were analysed for patients and medical data in a quality register, as well as the association of inappropriate medications with the tendency to code for medication reviews.

**Results:** Paying for data entry led to increased coverage, completeness and reliability. Paying for medication review coding was not associated with a greater reduction of inappropriate medications at highly reimbursed primary care centres than at others.

In **Study III**, visit patterns at primary care centres in relation to blood pressure target achievement for patients with hypertension were studied. **Results:** Current care for hypertension was based mainly on appointments with physicians. Patients at primary care centres with more appointments with nurses than physicians reached blood pressure targets to a greater extent. In **Study IV**, adherence to guidelines and the potential of improvement for lipid-lowering therapy in patients with established coronary heart disease were studied. **Results:** Fewer than 20% of patients reached the current target for LDL cholesterol, and estimates based on a risk model showed that improved treatment could substantially reduce the number of future cardiovascular events.

**Conclusion:** Individual-based regional data from healthcare and quality registers offer comprehensive sources of analysis of clinical practice, effects of reimbursement systems and guideline adherence for large groups of primary care patients.

**Keywords:** cardiovascular diseases, diabetes, elderly, healthcare quality assurance, hypertension, incentive, nurses, pay for performance, potentially inappropriate medication list, primary health care, secondary prevention, statins, Sweden, quality indicators