Quality, costs and the role of primary health care

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Abstract

The general aim of this thesis is to describe and analyse the role of primary care in health care systems in terms of health, health care utilisation and costs, and to study the feasibility of retrieval of data from computerised medical records to monitor medical quality. The thesis includes five studies, a systematic literature review, a register study of utilisation of hospital and primary care; a study based on data from computerised medical records of individual patients cost for primary care, and two studies of management of respiratory infections in primary care based on data from computerised medical records of twelve health centres.

The general findings of the literature review were that an expansion of the primary care component of the health care system would most likely result in better health, lower hospital care consumption and lower expenses for care. The personal physician and continuity of care were core elements to achieve this, and the significance of the way primary care is organised and funded was evident.

In the register study fifty health centres were compared. Age and rates of outpatient hospital visits were the most important factors explaining the variation of rates of hospitalisations between the health centres' areas. Hospital district also influenced hospitalisation rates in the different health centres' areas, indicating that the health care structure in the district per se was an important factor. The rates of visits to general practitioners correlated negatively with rates of hospitalisations.

The study of costs in primary care showed that the variation in the costs of the individual patients was substantial, also within age groups and within the diagnosis-related Adjusted Clinical Groups (ACG). Age and gender explained a smaller part of the variation in costs per patient in primary care. Adding the ACG weight had a major influence on improving the ability to explain the variation in costs at patient level. The ACG system might be of value in the calculation of weighted capitation in Swedish primary care, but appears to be sensitive to the thoroughness with which physicians register diagnoses.

The retrieval of data from computerised medical records comprised a total number of 19 965 encounters for respiratory tract infections i.e., 199 per 1000 inhabitants during the year. Most frequent diagnoses were common cold, acute tonsillitis, and acute bronchitis. The number of antibiotic prescriptions was 7,961, accounting for 47% of the episodes. The most commonly prescribed antibiotics were phenoxymethylpenicillin (61%), tetracyclines (18%) and macrolides (8%).

A rapid test was performed in 43% of the encounters: for C-reactive protein (CRP) in 31%; for Group A beta-haemolytic streptococci (StrepA) in 22%; and both tests were performed in 10% of the encounters. The findings in the study indicate that StrepA and CRP tests were used too frequently and often with minor contributions to patient management. The frequencies of tests and of antibiotic prescriptions varied greatly between health centres in a way that hardly could be explained by differences in morbidity.

Computerised medical records provided a source of clinical information, which might be a feasible and pragmatic method for studying daily practice, and for follow-up of adherence to guidelines in general practice.