Quality of drug treatment in older people
Focus on hip fracture patients and multi-dose drug dispensing

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ABSTRACT

The aim of this thesis was to describe the quality of drug treatment regarding fall-riskincreasing and fracture-preventing drugs in older hip fracture patients, to evaluate a method for improving such treatment, and to study the effects of multi-dose drug dispensing on drug treatment changes and on quality of drug treatment.

A descriptive study of fall-risk-increasing and fracture-preventing drugs in a cohort of older hip fracture patients preceded a randomised controlled trial, in which the effects of an intervention regarding fall-risk-increasing and fracture-preventing drugs were investigated. A case-control study compared drug treatment changes of drugs prescribed via multi-dose drug dispensing or via ordinary prescriptions. In a register-based cross-sectional study quality of drug treatment was compared in patients with or without multi-dose drug dispensing regarding five indicators of prescribing quality.

In older hip fracture patients fall-risk-increasing drugs were common, whereas fracture-preventing drugs were scarce. Medication reviews performed by a physician improved the treatment with fracture-preventing drugs after one year, but did not affect the treatment with fall-risk-increasing drugs. The odds for a drug to remain unchanged after six months was greater for drugs prescribed via multi-dose drug dispensing. Potentially inappropriate drug treatment according to indicators for prescribing quality was more common for patients with multi-dose drug dispensing, also after adjustments for important covariates.

Quality of drug treatment in older hip fracture patients may be improved regarding fracture-preventing drugs, whereas extensive use of fall-risk-increasing drugs is more difficult to affect. Multi-dose drug dispensing is associated with poor quality of drug treatment, i.e. fewer drug treatment changes and higher prevalence of potentially inappropriate drugs. These findings need to be further evaluated and taken into account when designing multi-dose drug dispensing systems.

Keywords: older people, hip fracture, osteoporosis, medication review, prescribing, multi-dose drug dispensing, drug treatment, quality indicators


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