

# Effects of a clinical medication review focused on personal goals, quality of life and complaints in older persons with polypharmacy; a randomised controlled trial (DREAMeR-study)

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**Background** Clinical medication reviews (CMR) are increasingly performed in older persons with multimorbidity and polypharmacy to reduce drug-related problems. However, effects on clinical outcomes are limited. Little attention has been paid to patient's preferences and needs.

**Purpose** The aim of this study was to investigate the effect of a patient-centred CMR, focused on personal goals, on health-related quality of life (HR-QoL) and health-related complaints.

**Method** This study was a randomised controlled trial performed in 35 community pharmacies and cooperating general practices in the Netherlands. Older persons ( $\geq 70$  years) with polypharmacy ( $\geq$  seven chronic drugs) were randomly assigned to usual care or to receive a CMR. The primary outcomes were HR-QoL (assessed with EQ-5D-5L and EQ-VAS) and number of health-related complaints after three and six months. Complaints were measured as the total number of health-related complaints and number of health-related complaints with impact on daily life.

**Findings** Between April 2016 and February 2017, we recruited 629 persons (54% females, median age 79 years) and randomly assigned them to receive the intervention ( $n=315$ ) or usual care ( $n=314$ ). Over six months, compared with the control group, in the intervention group HR-QoL measured with EQ-VAS increased with 3.4 points (difference per 3 months: 1.7; 95% CI 0.47 to 2.9;  $p=0.006$ ), and the number of health-related complaints with impact on daily life decreased with 12% (difference per 3 months: -0.17; 95% CI -0.32 to -0.018;  $p=0.029$ ). There was no change between the intervention and control group for HR-QoL measured with EQ-5D-5L and total number of complaints.

**Conclusion** In older persons with polypharmacy, clinical medication review focused on personal goals increased quality of life measured with EQ-VAS and decreased the number of health-related complaints with impact on daily life, but did not improve quality of life measured with EQ-5D-5L.