

Does Medicines Use Review influences medicine-associated burden?

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Background Chronic medicines use can present a burden in patients' everyday life and consists of several elements - from practical issues, side effects to attitudes, beliefs and concerns about medicines.

Purpose We aimed to evaluate how Medicines Use Review (MUR) service influences patient medicine-associated burden.

Method A randomised controlled trial, consisting of two visits (V1 and V2), was performed in community pharmacies to compare MUR (test group (T); received MUR at V1) with standard care (control (C)). Patients recognized as suitable for MUR by certified pharmacists and taking at least one Rx chronic medication were eligible for enrolment. The medicine-related burden was a secondary outcome, assessed with The Living with Medicines Questionnaire (©LMQ). Patients fulfilled the ©LMQ questionnaire at both visits and MUR impact on medicine-associated burden was defined as the mean relative difference in ©LMQ, visual analogue scale (VAS) and each questionnaire domain score between test and control group after 12 weeks (V1-V2). Independent t-test or ANOVA was used for normally distributed variables, and the Mann-Whitney U test or Kruskal-Wallis test for other distribution types, at $\alpha=0.05$.

Findings Data of 140 patients (T=72; C=68) were analysed, inter-group comparison showed no statistically significant differences at V1. The average ©LMQ scores at V1 were 97.75 (SD=20.31) and 92.88 (SD=19.7) points for the test and control group, respectively. The medicine-associated burden was non-existent for 15%, minimal for 56%, moderate for 28%, and high for 1% of patients, which is similar to the findings in the literature (Krska 2018, Tordoff 2019). At V2, the average ©LMQ scores decreased to 93.56 (SD=18.55) and 91.16 (SD=21.33) points for the test and control group, respectively. The average VAS scores were 2.81 (SD=2.34) and 2.66 (SD=2.13) points at V1, and 2.53 (SD=2.40) and 2.68 (SD=2.25) points at V2, for the test and control group, respectively. The overall medicine-associated burden did not decrease as a result of receiving MUR (©LMQ $p=0.618$; VAS $p=0.911$). The reasons could be in the general low levels of perceived burden as well as in the level of sensitivity of the used instrument. Nevertheless, patient concerns regarding their daily use of medicines decreased after they received MUR (domain 6 of the ©LMQ), with a statistically significant difference in domain score (V1-V2) between groups ($p=0.029$).

Conclusion MUR did not significantly influence the overall medicine-associated burden; however, the results show patients feel empowered and less worried about chronic medicines use after receiving the service.