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The Medicines Advice Service Evaluation (MASE): An RCT Of An Intervention To Improve Medication Adherence In A Mail-Order Pharmacy Population

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Background

Non-adherence to medicines for long-term conditions is a complex, prevalent phenomenon, with significant clinical and economic consequences for patients and health providers worldwide.

Objectives

To test the effectiveness of a pharmacist-led intervention to improve adherence, in the context of mail-order pharmacy.

Methods

A parallel-group RCT was conducted. 677 patients prescribed at least one oral medication for type 2 diabetes and/or lipid regulation were recruited from a UK mail-order pharmacy between Nov 2012-Sept 2013, and randomised (340 intervention, 337 control). The intervention was patient-centred, comprising information and advice by phone and written information by post, delivered by a pharmacist. All elements of the intervention were tailored to the individuals' needs. The primary outcome was self-reported adherence to medication at 6-month follow-up, measured using the Diagnostic Adherence to Medication Scale. Generalised estimating equations analyses were conducted according to the intention-to-treat principle. Secondary outcomes included prescription refill adherence defined as a medication possession ratio and lipid and glycemic control.

Results

Patients who received the intervention had 54% increased odds of being adherent (defined as ≥90% of medication taken in the past 7 days), compared with the control group (OR 1.54, 95%CI 1.11-2.15, p=0.01). Analyses of dispensing data also showed that the odds of being classified as adherent (≥90%) were 60% greater for the intervention group compared with the control group (OR 1.60, 95%CI 1.14-2.24, p<0.01). For patients who provided a blood sample at 6-month follow up, 67% vs 31% (16 intervention, 5 control, p=0.06) and 65% vs 55% (64 intervention, 38 control, p=0.24) achieved guideline targets for glycemic and lipid control, respectively.

Conclusions

Intervention, led by a pharmacist and tailored to the individuals' needs, can significantly improve medication adherence in patients with long-term conditions. The findings provide further support for the enhanced role of

pharmacists in supporting and advising patients with their medicines, and improving outcomes.