Pharmacy Dispensing Records to Identify and Educate Patients with Suboptimal Asthma Management

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Abstract:

Aim: To use community pharmacy dispensing records to identify patients whose asthma may not be well managed and then implement and evaluate the uptake and effectiveness of pharmacist-initiated mailed and face-to-face interventions.

Methods: Community pharmacies throughout Tasmania, Victoria and South Australia installed a software application that data mined dispensing records, generating a list of patients who had received six or more asthma relievers in the preceding 12 months. Intervention patients received (either by mail or in person) educational material and asthma questionnaires, with a letter also encouraging them to see their general practitioner for an asthma management review. Pharmacists were blinded to the control patients’ identities until the end of the 12-month post-intervention period.

Results: A total of 1483 patients (510 [34.4%] mailed intervention patients, 480 [32.4%] face-to-face intervention patients and 493 [33.2%] control patients) were identified from 71 pharmacies. Significantly fewer face-to-face intervention patients were offered an intervention compared with mailed intervention patients (66.6% versus 89.4%, respectively; $\chi^2 = 64.2$, $P < 0.0001$). After the intervention, there were significant improvements in the preventer-to-reliever ratio in both intervention groups and the control group ($P < 0.0001$). The magnitude of improvement in the face-to-face intervention group was greater than that in the mailed intervention group, which was greater than that in the control group. Taking the decreased delivery of the face-to-face intervention into account, the magnitude of improvement in the mailed intervention group was greater than that in the face-to-face intervention group.

Conclusion: Community pharmacy dispensing records can be effectively used via data mining software to identify patients with suboptimal asthma management, who can then be referred to their GP for review. Time constraints in busy pharmacies may limit the uptake and effectiveness of face-to-face interventions in the ‘real world’ setting.