Effect of outpatient pharmacists' non-dispensing roles on patient outcomes and prescribing patterns

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RHL Summary

The role of pharmacists has expanded over the years to include patient counselling, therapeutic management, and providing education to health-care professionals. This review evaluates the impact of outpatient pharmacists’ non-dispensing roles on outcomes for patients and health-care professionals. A total of 43 studies were included, of which 36 related to pharmacist interventions targeting patients and seven to pharmacist interventions targeting health-care professionals. In most studies, the interventions resulted in improvement in clinical outcomes, although statistical significance was not achieved in all cases. The studies suggest that pharmacists can play a supporting role in providing medication, managing the therapeutic process, counselling patients, and providing education to health-care professionals.

Cochrane review


Abstract

The roles of pharmacists in patient care have expanded from the traditional tasks of dispensing medications and providing basic medication counseling to working with other health professionals and the public. Multiple reviews have evaluated the impact of pharmacist-provided patient care on health-related outcomes. Prior reviews have primarily focused on in-patient settings. This systematic review focuses on services provided by outpatient pharmacists in community or ambulatory care settings. This is an update of the Cochrane review published in 2000.

To examine the effect of outpatient pharmacists' non-dispensing roles on patient and health professional outcomes.

This review has been split into two phases. For Phase I, we searched the Cochrane Effective Practice and Organisation of Care (EPOC) Group Specialised Register (January 1966 through March 2007). For Phase II, we searched MEDLINE/EMBASE (January 1966 through March 2008). The Phase I results are reported in this review; Phase II will be summarized in the next update.
Randomized controlled trials comparing 1. Pharmacist services targeted at patients versus services delivered by other health professionals; 2. Pharmacist services targeted at patients versus the delivery of no comparable service; 3. Pharmacist services targeted at health professionals versus services delivered by other health professionals; 4. Pharmacist services targeted at health professionals versus the delivery of no comparable service.

Two authors independently reviewed studies for inclusion, extracted data, and assessed risk of bias of included studies.

Forty-three studies were included; 36 studies were pharmacist interventions targeting patients and seven studies were pharmacist interventions targeting health professionals. For comparison 1, the only included study showed a significant improvement in systolic blood pressure for patients receiving medication management from a pharmacist compared to usual care from a physician. For comparison 2, in the five studies evaluating process of care outcomes, pharmacist services reduced the incidence of therapeutic duplication and decreased the total number of medications prescribed. Twenty-nine of 36 studies reported clinical and humanistic outcomes. Pharmacist interventions resulted in improvement in most clinical outcomes, although these improvements were not always statistically significant. Eight studies reported patient quality of life outcomes; three studies showed improvement in at least three subdomains. For comparison 3, no studies were identified meeting the inclusion criteria. For comparison 4, two of seven studies demonstrated a clear statistically significant improvement in prescribing patterns.

Only one included study compared pharmacist services with other health professional services, hence we are unable to draw conclusions regarding comparisons 1 and 3. Most included studies supported the role of pharmacists in medication/therapeutic management, patient counseling, and providing health professional education with the goal of improving patient process of care and clinical outcomes, and of educational outreach visits on physician prescribing patterns. There was great heterogeneity in the types of outcomes measured across all studies. Therefore a standardized approach to measure and report clinical, humanistic, and process outcomes for future randomized controlled studies evaluating the impact of outpatient pharmacists is needed. Heterogeneity in study comparison groups, outcomes, and measures makes it challenging to make generalised statements regarding the impact of pharmacists in specific settings, disease states, and patient populations.

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