

Community pharmacy–based medication assessment program for asthma and chronic obstructive pulmonary disease

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Introduction

Asthma and chronic obstructive pulmonary disease (COPD) have a significant impact on patients' quality of life, and community pharmacists may be able to help improve asthma control.¹⁻³ Less is known about the impact of pharmacists' interventions on COPD outcomes.⁴

Methods

We conducted a pilot study involving 21 community pharmacists from the province of Quebec, who assessed 82 patients with a diagnosis of either

asthma ($n = 23$) or COPD ($n = 59$). Participating pharmacists had to work a minimum of 20 hours per week at the pharmacy and they received \$50 for each subject recruited. Pharmacists had to complete a brief continuing education lesson on the management of asthma and COPD before the implementation of the program. Pharmacists used a standardized approach to assess patients (see Box 1). During the assessment, pharmacists reviewed the role of respiratory medication, checked inhalation techniques, assessed disease control/severity, identified potential drug-related problems, evalu-

BOX 1 Interventions planned in the assessment

1. Assess asthma or COPD control:
 - Complete the 30-second asthma test or the Medical Research Council dyspnea scale with the patient.
 - Ask about previous unscheduled visits, emergency room visits and hospitalizations for asthma or COPD in the last 12 months.
2. Ask about the possession of a written action plan.
3. Ask the patient about the frequency of use of respiratory medication in the last 12 months and check the pharmacological chart.
4. Explain the role of respiratory medication in relation to the pathophysiology of the disease and check for subjects' comprehension of the information.
5. Review and correct inhalation technique.
6. Provide advice regarding smoking cessation, if relevant.
7. Complete referral to an asthma or COPD educator, if no previous visit and patient consents to referral.
8. Send a written pharmaceutical opinion to the prescribing physician (summary of the information collected during the interview and suggestions to modify the pharmacotherapy, when applicable).

ated medication adherence and completed referrals to an asthma or COPD educator. A summary was provided to each patient's physician with recommendations if appropriate.

Results

Overall, pharmacists made 59 recommendations (Table 1). Nine physicians completed and returned a satisfaction questionnaire, and 6 of them reported that the information provided by the pharmacist was very useful (score of 4 or 5 out of 5, 5 being the most useful). Furthermore, all respondents agreed (score of 3 or 4 out of 4, 4 being "completely agree") with the statements that community pharmacists have the expertise "to assess/monitor drug therapy" and "to identify drug-related problems" for COPD patients. Pharmacists generally appreciated the program, but the lack of time was reported to be a barrier. Self-reported time to complete the assessment was about 30 minutes.

TABLE 1 Recommendations made by pharmacists to prescribing physicians

Recommendation	Number (n = 59)
Change inhalation device	9
Implement an individualized written action plan	17
Change in pharmacotherapy based on asthma or COPD guidelines and level of disease severity/control	12
Consider adherence to medication	7
Other	14

Discussion

Lack of time has previously been reported to be a barrier to interventions in asthma by pharmacists.^{5,6} To overcome this barrier, pharmacists could delegate some tasks to pharmacy interns, pharmacy technicians or nurses employed at the pharmacy. ■

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