Award-winning pharmacist-led COPD clinic to offer bespoke drug treatment

A pharmacist-led chronic obstructive pulmonary disease clinic has led to remarkably improved outcomes for patients in the north east of England, and has shown some unexpected benefits. Ailsa Colquhoun spoke to the clinical pharmacist responsible

A pharmacist-led chronic obstructive pulmonary disease clinic, which won a Pharmaceutical Care Award in 2007, is now being developed to offer patients bespoke pharmacotherapy.

The extension to the pharmacist-led COPD clinic at County Durham and Darlington Foundation Trust will see pharmacists use spirometry testing to devise and initiate treatment protocols that are tailored to patients’ clinical needs.

By measuring and tailoring therapy to a patient’s individual lung function, including during exacerbations, a better choice of medication and delivery device can be made, says trust clinical pharmacist Labib Tadros, who also took the lead on the 2007 PCA winning study. “This will maximise the therapeutic effect we can achieve, even during exacerbations,” he said.

Currently the “mark II” clinic is being prepared for roll-out and evaluation, and the hope is that the first patients to use the new clinic will be seen by the end of April next year. Dr Tadros is confident that demand for the clinic will be high. The hospital’s consultants currently refer around eight patients a week to the existing COPD clinic, and they are already pressing for the pharmacy to increase the clinic’s capacity.

Outcomes fuel demand

At the heart of this demand are the successful clinical outcomes and patient quality of life gains that pharmacist intervention has achieved.

In the COPD clinic the pharmacist aims to identify and rectify drug-related problems, including those caused by medicines prescribed for co-morbidities and, with the agreement of the patient, initiate new medicines. Formal evaluation of the clinic, at baseline (admittance) and at one year, aimed to establish the value of this intervention. The study involved 114 patients who suffered from moderate to severe COPD and who had been admitted to hospital to treat COPD exacerbations at least twice during the previous 12 months.

By attending the clinic for one year, patients increased their forced expiratory volume in one second (FEV1) from 56.1 per cent of the predicted value to 62.7 per cent. Patients also reduced their hospital admission rates and acute treatment needs. Following pharmacist intervention patients were admitted to hospital for 54 days, and received 61 antibiotic and steroid courses, compared with 317 and 224, respectively, during the 12 months before the study.

Quality of life gains

As well as improving clinical outcomes, the clinic also aims for patient quality of life gains. Pharmacotherapy is supported by a tailored education programme and disease management plan, based on the disease severity, the patient’s environment, exercise levels and any compliance problems. The clinic’s pharmacist also encourages patients to measure lung function themselves, and identify and seek early treatment for the symptoms of a COPD exacerbation. Dr Tadros says that in terms of patient education, the clinic has been equally successful as in its clinical outcomes. He says: “The positive contribution of the pharmacist is clear cut. We can increase patients’ knowledge and understanding of COPD, identify symptoms and improve the patient’s role in its management.”

Compared with baseline, patients’ understanding of their condition has risen by 70 per cent. Intervention by a pharmacist has additionally improved smoking cessation rates, and smoking cessation advice provided by the pharmacist has been evaluated in a group of asthma patients attending the COPD clinic. After intervention, 11 patients with asthma gave up smoking, compared with one in the group not receiving pharmacist support.

Dr Tadros says that the COPD intervention has also produced clinically significant weight loss. Although this was not formally evaluated, Dr Tadros says there is plenty of anecdotal evidence of success: “Patients tell me when they have been able to go swimming or they have been able to play with their grandchildren thanks to the advice they have received from my clinic. By increasing their understanding of the complications of COPD and how this risk is increased by smoking and lack of exercise, we can change their attitudes completely.”

Patient-centred care

Dr Tadros is clear about the challenges facing the pharmacist charged with managing COPD. He says: “The [clinical] management of COPD is complex; multiple co-morbidities are common and patients are often prescribed complex medication regimens.” To achieve success pharmacists need to respect patients’ views, he says. “Patients’ decisions to follow the recommended treatment are likely to be influenced by their beliefs about medicines as well as their beliefs about COPD.”

Furthermore, patients need to be encouraged to make lifestyle changes, eg, stop smoking and adhere to exercise therapy, and Dr Tadros thinks that success depends on the pharmacist respecting the quality of life outcomes that patients want to achieve. He says: “In the past, very little attention has been paid to the patient’s perspective.”

But, at the same time, he is clear that the pharmacist must rise to the challenge of self-management. “We have shown that a pharmacist prescriber has the skills to improve both clinical outcomes and quality of life outcomes. However, the pharmacist also needs to help patients to understand the influence they themselves can have on their condition.”