Introduction

Incontrovertible evidence exists supporting both the need for, and value of, sound programmes of secondary prevention for patients with established coronary heart disease (CHD). In order to be effective, such programmes require a balanced approach between therapeutic interventions and monitoring, to optimise phamacotherapy and individualised supportive interventions to empower patients to reduce the burden of their reversible lifestyle risk factors. Whilst primary care practitioners are committed to such programmes, it is recognised that delivery of appropriate therapeutic and lifestyle interventions to this client group can pose significant challenges and for this reason, provision has in the past been variable. Publication of the English National Service Framework (NSF) for CHD underpins the Government's commitment to addressing the rising burden of CHD, which is higher in England than in many other countries, with more than 110,000 deaths each year. The Framework presents a comprehensive 10-year strategy to transform and improve cardiac services across the whole spectrum of care, including primary and secondary prevention. The programme comprises reforms, as well as standards and service models, which are designed to achieve the Government's ambitious target of cutting CHD and stroke by 40% by 2010. Interim targets for April 2001 recommended in the Framework, include the introduction of smoking cessation clinics by Health Authorities and standards on the prescribing of aspirin, beta-blockers and statins after heart attacks. In order to meet the challenges of the NSF for the secondary prevention of CHD, evidence-based, patient-specific models of care will be needed. These models, largely delivered in the primary care setting, will require effective teamworking. Community pharmacists, as members of the primary care team, are currently seeking role development. As a consequence, increasing numbers have already established valuable partnerships with general practitioners in order to provide enhanced levels of management for particular patient groups, including those with chronic disease states. This is supported by the recent English Health Service strategy paper, “Pharmacy in the Future – Implementing the NHS Plan”, which seeks better integration of pharmacists within multidisciplinary health care teams.
One Health Authority in the North West of England, with a high standardised mortality rate (SMR) for CHD, recently introduced a strategy to reduce CHD-related morbidity and mortality rates. As part of the strategy, a feasibility study was undertaken to explore the contribution of community pharmacists to the management of patients with the clinical manifestation of CHD, (i.e.) angina, when working in partnership with general practitioners (GPs). A specified programme of care was established, which was based on six interventions shown to be effective in reducing age-related morbidity and mortality in patients with existing cardiovascular disease. These are cessation of smoking, dietary advice, exercise, aspirin, beta-blockers and statins.

**Feasibility study**

The objectives of the feasibility study were:
- to explore and describe changes in patient management resulting from the delivery of the six evidence-based interventions
- to determine the impact of the community pharmacist-run angina clinics (CPRACs) on the quality of life of patients with angina

**Method**

A convenience sample of community pharmacists and GPs were paired for the study. Following preparatory training in clinical, pharmacological and health promotional aspects of the management of CHD, five pharmacists conducted the CPRACs in partnership with 17 GPs in eight practices. The feasibility study was conducted over a period of one year. A generic study protocol was established, following local multidisciplinary consultation. Patients aged 45-75 years, with stable angina (grades I – III, using the Canadian Cardiovascular Society classification criteria 11 and receiving four or fewer prescribed medications for their CHD were eligible for the study. Exclusion criteria included heart failure or other serious co-morbidities.

Patients were reviewed in detail, in the GP’s practice at the beginning and end of a five-month study. In addition, two brief interim reviews were undertaken, mostly via the telephone. The ‘Stages of Change’ model, 12 which has been widely integrated into health promotion, was employed to support delivery of the lifestyle interventions. Individualised care plans, including therapeutic and lifestyle interventions were established at the end of the first review sessions. A validated disease-specific status measure for people with CHD, the Seattle Angina Questionnaire (SAQ) 13 was employed to assess the impact of attending the CPRACs on the patient’s functional status and quality of life.

Two-hundred and thirty-six (72%) of the 327 patients invited, attended the CPRACs. Mean age was 65 years (44-77 years); 94 (40%) were female. Two-hundred and eight (88%) patients remained in the study until completion.
Findings

Lifestyle parameters

The proportion of current smokers reduced from 24 to 21%. Although a modest decrease, this was nonetheless slightly better than that recently reported. Significant improvements in diet were reported, as classified using a food frequency diary together with non-significant increases in levels of physical activity. Body mass index (BMI) levels were relatively unchanged.

Therapeutic interventions

The proportion of patients taking aspirin increased from 77% to 85%. Since aspirin was contraindicated for the remaining 15% of patients, all patients who should have been taking aspirin were taking it by the end of the study. The proportion of patients prescribed statins increased significantly from 24% to 37%. There was no change in the prescribing of beta-blockers. Although not included as a study intervention, the pharmacists also identified and acted upon sub-optimal nitrate usage in 22% of the patients.

Health status

Comparison of the SAQ scores at the beginning and end of the five-month study showed significant improvements in four of the five scales, anginal stability, anginal frequency, treatment satisfaction and disease perception.

Good Practice Guide

One of the outputs from this feasibility study was a Good Practice Guide. This was constructed to provide community pharmacists wishing to embark on similar partnerships with GPs, to support the management of patients with stable angina, with a theoretical and practical framework in which to practice. The objectives of the guide are to provide: a background on the theory and practice of the management of patients with CHD, insights into the necessary training and skill requirements, a viable framework to support ‘getting into practice’ and a concise guide on organisation, conduct and evaluation of clinics established to improve the management of patients with chronic stable angina.

The guide comprises a number of self-contained sections exploring current literature on CHD and step-by-step preparation for delivering the new service (including all relevant documentation, for example service agreements, patient letters and consent forms, patient management protocols and data collection forms). Fact sheets were also included on each of the key interventions, together with supplementary reading and sources of information. The guide also contains the executive summary from the feasibility study final report, in order to provide further accessible insights into the provision of this particular type of extended service for patients. Production of ‘stand-alone’ sections rather than an integrated guide means that individual sections can be readily updated, in light of new research evidence.
Discussion

The findings of this small feasibility study clearly show that community pharmacists are able to work in partnership with GPs to effect improved models of care for patients with chronic stable angina. This supports recent recommendations for pharmacist role expansion and also begins to address some of the standards required by the NSF for CHD. The experience and perspectives of all those involved in the feasibility were positive and facilitative.

The majority of patients who participated in the study had at least one lifestyle risk factor that would have benefited from positive modification. In most cases, however, the lifestyle risk factors were long-established and, as a consequence, encouraging patients to make and maintain improvements was problematic. One of the main concerns in relation to the burden of reversible lifestyle risk factors amongst the patients was the high level of obesity which was found. Since many patients were fearful that physical activity would induce angina, there was understandable reluctance on their part to tackle obesity, except in a very marginal way via diet. However, the therapeutic interventions made by the pharmacists, particularly in relation to nitrate therapy, resulted in better control of angina and improved exercise tolerance, resulting in enhanced general well-being. As a consequence, some patients were more positively motivated towards reducing their total burden of reversible risk factors. This, together with the highly valued ongoing support received from the community pharmacists, was responsible for the modest but important improvements seen across the lifestyle interventions.

In conclusion, motivated by the success of this small feasibility study, a guide providing a theoretical and practical framework has been established to encourage and support community pharmacists to establish partnerships with GPs to provide improved models of care for patients with chronic stable angina.
References


