

## Short report

# A feasibility study of a combined nurse/ pharmacist-led chronic pain clinic in primary care

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### ABSTRACT

Chronic pain is common and management hampered by lack of resources in primary and secondary care. Nurse- or pharmacist-led clinics have been shown to lead to improvements in care for patients with chronic pain. This study showed that a combined nurse/pharmacist-led clinic for managing chronic

pain in primary care can lead to improvements in management of pain, reduction in use of secondary care resources and high rates of satisfaction.

**Keywords:** chronic pain, nurse-led clinics, primary care

### How this fits in with quality in primary care

#### What do we know?

Chronic pain is common and management hampered by lack of resources in primary and secondary care. Nurse or pharmacist-led clinics have been shown to lead to improvements in care for patients with chronic pain.

#### What does this paper add?

Over a one-year period, a combined nurse/pharmacist-led clinic for managing chronic pain in primary care received half of all referrals to a chronic pain service from one primary care trust. The patients managed had improved pain scores and showed high rates of satisfaction with the service. Few patients were referred onwards to secondary care for extra interventions or further review by a pain consultant.

## Introduction

Epidemiological studies have demonstrated that chronic pain is common in primary care.<sup>1,2</sup> In a recent large-scale computer-assisted telephone survey, Breivik *et al* estimated that 19% of European adults suffered from chronic pain of moderate to severe intensity

which seriously affected the quality of their social and working lives.<sup>3</sup> Respondents were considered to suffer from long-lasting pain if they (a) suffered pain for at least 6 months; (b) had experienced pain in the last month; (c) experienced pain at least twice per week;

and (d) rated their pain as 5 or over on a 11-point numerical rating scale (NRS, 0 = no pain at all; 10 = worst pain imaginable). In-depth interviews with the 4839 respondents showed that 60% visited their doctor about their pain 2–9 times in the last six months, but in the UK only 16% had seen a pain specialist compared to 40% or over in France or Italy. One-third of the chronic pain sufferers were not being treated. While this provided a useful snapshot of the extent of the problem, it did not provide information on the long-term course and management of chronic pain.

Recent research that focused solely on the UK population has shown similar patterns of pain prevalence and low specialist provision. In 2002, Elliot *et al* reported results from a four-year follow-up study of a community sample of residents in the Grampian region of Scotland ( $n = 1608$ ).<sup>4</sup> In this study the prevalence of chronic pain (defined as pain or discomfort for three months) increased from 45.5% at baseline to 53.8% at follow-up. Few recovered from chronic pain, with 79% of people who had pain at baseline still reporting pain four years later. This demonstrated that chronic pain is an ever-present, persistent problem in primary care.

In a recent survey of a random sample of general practitioners (GPs) to assess their satisfaction with the management of patients in chronic pain ( $n = 504$ ), GPs described feelings of helplessness and commented that people with chronic pain represented a significant workload and that they were dissatisfied with waiting times for appointments in secondary care. Nearly all GPs (91%) thought that management of chronic pain could be improved in their local area.<sup>5</sup>

In 2000, The Clinical Standards Advisory Group published a review of provision of pain services in the UK and found that there were very few links between secondary care pain clinics and primary care, and that GPs were unsupported.<sup>6</sup> They recommended that acute trusts should strengthen links with primary care to improve access and quality. However, in a survey of UK hospitals in 2003, over 50% of acute trusts with pain clinics had no links with primary care and there were only a few examples of clinics held in primary care settings.<sup>7</sup>

There is some evidence that nurse-led pain clinics are feasible and can lead to improved outcomes such as less pain and increased patient satisfaction. For example, a cohort study of nurse-led pain clinics in primary care reported that 59% of patients experienced a statistically significant reduction in pain scores with no overall impact on drug costs.<sup>7</sup> However, they did not assess the impact of the clinics on secondary care referrals. Therefore it may simply have been that the nurse-led clinic added an extra hurdle for the patients to go through on their way to see a hospital pain specialist.

A pharmacist-led intervention has also been used with some success.<sup>8</sup> People with chronic pain were identified

via analgesic prescription, and a pharmacist carried out detailed medication reviews using medical records. They were able to make recommendations for safe and appropriate prescribing for 86% of the participants, and these were implemented in 77% of cases. Although pain severity was not affected by the intervention, they suggest this may complement nurse-led interventions, which also need further evaluation.

This paper describes a study that was designed to test the feasibility and impact of a combined nurse/pharmacist-led clinic (NPLC) for managing chronic pain in primary care. The objectives were to:

- 1 estimate the percentage of initial pain service referrals that could be managed in a nurse/pharmacist-led clinic in primary care
- 2 assess the demand for secondary care referral from the NPLC (i.e. estimate the percentage of patients who remain cared for in primary care and the percentage who still required hospital referral after the NPLC)
- 3 assess impact of the NPLC on patients' pain scores.

## Methods

The service was developed in a primary care trust (PCT) in the north of England. A district nurse completed a training programme with the hospital pain team (KM). Clinic guidelines and referral pathways were agreed with the pain team and the PCT. A collaborative working agreement was set up with a community pharmacist to advise on medication review. All patients referred by GPs to the pain service were considered for the new nurse-led service. The nurse (KM) and hospital pain consultant triaged patients to either the secondary care service or the nurse-led service. Patients were then sent a letter inviting them to attend either the NPLC in the practice or the hospital pain service.

Patients were seen by the nurse and the pharmacist, and the GP received a letter about the treatment plan. The nurse had the authority to refer directly to the pain service if required. Ethical approval for the feasibility study was obtained.

A research nurse (JB) not involved in delivering the clinic collected the data for the study from the clinical records. Referral data were collected for a 12-month period from June 2005; all patients who referred to the secondary care pain service were noted. Clinical data (e.g. pain intensity scores using a 11-point numeric rating scale, 0 = no pain; 10 = worst pain imaginable) were collected for a six-month period (June to November 2005).

The number of referrals to the NPLC was calculated and compared to the total number of referrals to the

secondary care pain service during that period. The pain score data were analysed using SPSS version 12 software. Pain scores on entry to the service were compared with pain scores at discharge.

## Results

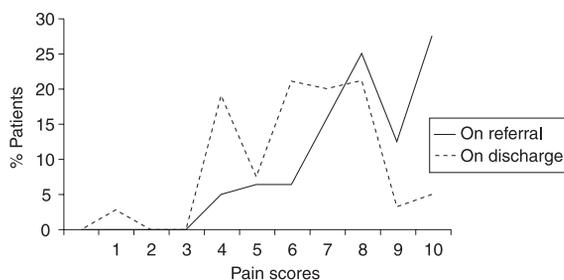
Over a one-year period the NPLC received 120 new referrals, which accounted for 50% of all the referrals to the chronic pain service from this PCT. Of these, only 13 were referred onwards to secondary care, showing low demand for the NPLC to refer patients on for extra interventions or further review by a pain consultant.

Over a six-month period, clinical data were collected from the 65 referrals to the NPLC. The ages of those attending ranged from 27 to 86 years, with a mean of 57 (standard deviation (SD) 15) years. Of these 11 were in paid employment and 47 were not (data missing for 7). Pain scores on referral were 8 (both mean and median) and on discharge 6.3 (mean) and 6 (median). Figure 1 shows the distribution of pain scores at referral to the nurse-led clinic and on discharge, illustrating the clear downward shift in reported intensity over time. This reduction was statistically significant, two-tailed  $P < 0.0001$  (Wilcoxon signed ranks test).

A Mann-Whitney test indicated that those who were not in paid employment had significantly higher pain scores than those who were, both on referral ( $P = 0.012$ ) and on discharge ( $P = 0.006$ ).

## Discussion

This small evaluation has shown that a nurse/pharmacist-led clinic was practically feasible, had a positive impact on pain reported by patients, and reduced the need for secondary care referral. It also suggested that those who were not in paid employment may have had



**Figure 1** Percentage of patients with each pain score on referral ( $n = 59$ ) and on discharge ( $n = 37$ )

different needs. In addition, a small patient satisfaction survey ( $n = 24$ ) completed by the clinicians involved in the NPLC demonstrated that 92% of patients were either satisfied or very satisfied with their overall care in this primary care-based clinic. Generally very positive comments were given about the clinic by the patients surveyed.

This adds weight to other small-scale evaluative studies which have suggested that these are effective approaches and that nurses and pharmacists can improve patients' experience of pain in primary care.<sup>8,9</sup> However, to move this area forward, large randomised controlled trials are required to develop and refine these primary care interventions for this group of patients. With the advent of more opportunity for prescribing for nurses and pharmacists in the UK with supplementary and independent prescribing, this is a good time for developing interdisciplinary models of working to improve the lives of people in chronic pain.

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**CONFLICTS OF INTEREST**

None.

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