Prescribing for pain – how do nurses contribute? A national questionnaire survey

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ABSTRACT

Aim: To provide information on the profile and practice of nurses in the United Kingdom who prescribe medication for pain.

Background: Pain is widely under-reported and under-treated and can have negative consequences for health and psychosocial wellbeing. Indications are that nurses can improve treatment and access to pain medications when they prescribe. While nurses working in many practice areas treat patients with pain, little is known about the profile, prescribing practice or training needs of these nurses.

Design: A descriptive questionnaire survey

Method: An online questionnaire was used to survey 214 nurses who prescribed for pain in the United Kingdom between May and July 2010. Data were analysed using descriptive statistics and non-parametric tests.

Results: Half the participants (50%) worked in primary care, 32% in secondary care and 14% worked across care settings. A range of services were provided, including: general practice, palliative care, pain management, emergency care, walk-in-centres and out-of-hours. The majority (86%) independently prescribed 1 to 20 items per week. Non-opioid and weak opioids analgesics were prescribed by most (95%) nurses, whereas fewer (35%) prescribed strong opioids. Training in pain had been undertaken by 97% and 82% felt adequately trained, although 28% had problems accessing training. Those with specialist training prescribed a wider range of pain medications, were more likely to prescribe strong opioids and were more often in pain management roles.

Conclusion: Nurses prescribe for pain in a range of settings with an emphasis on the treatment of minor ailments and acute pain. A range of medications are prescribed and most nurses have access to training.

Relevance to clinical practice: The nursing contribution to pain treatment must be acknowledged within initiatives to improve pain management. Access to ongoing training is required to support nurse development in this area of practice in order to maximise benefits.

Keywords: nurse prescribing, pain, prescribing patterns, advancing nurse role

INTRODUCTION

Epidemiological studies show that pain is commonly experienced (Crombie *et al.* 1999, Langley 2011). A National Health and Wellness survey of selected European countries reported the population prevalence of daily pain as 8.85% (Langley 2011). If unresolved, pain can have a negative impact on health status, quality of life, employment, economic productivity and healthcare utilisation (Clinical Standards Advisory Group (CSAG) 2000, Breivik *et al.* 2006, Langley 2011).

Pain can be broadly classified as either acute or chronic, although these classifications can overlap. Acute pain is usually sudden in onset, of limited duration and often associated with injury or disease (CSAG 2000). It frequently occurs post-operatively, and is associated with a number of conditions from minor illnesses to injuries such as burns, trauma, musculoskeletal problems and long-term illnesses such as cancer (The Royal College of Anaesthetists & The Pain Society (RCAPS) 2003). Treatment for acute pain ranges from simple analgesic medication (such as paracetamol and ibuprofen) to complex interventions such as patient controlled analgesia (RCAPS 2003). In the United Kingdom (UK), as in countries such as USA and Australia, specialist multi-disciplinary acute pain teams are advocated to provide pain relief in hospital settings (Nagi 2004). However, despite international attempts to improve pain services, evidence indicates that post-operative pain continues to be under-treated (Powell *et al.* 2009a).

Chronic pain is defined as pain lasting longer than the expected time of healing, or from disease processes in which healing does not take place (CSAG 2000). Across Europe

over a quarter of adults (28%) report chronic pain lasting at least 6 months, the most common being back pain (Fricker 2003). Patients with chronic pain make frequent use of healthcare services (Elliot *et al.* 1999, Breivik *et al.* 2006) and good practice recommends they are referred to specialist chronic pain management services which provide a range of medical and non-medical interventions (RCAP 2003). Despite this, most patients are treated by their general practitioner (Breivik *et al.* 2006) and evidence suggests that up to 50% of patients fail to achieve adequate pain control (Fricker 2003, Breivik *et al.* 2006). Similar concerns have been raised in relation to cancer pain; a recent international literature review concluded that pain is under-treated in almost 50% of cancer patients (Deandrea *et al.* 2008)

The complex nature of pain and its management means that in addition to acute hospital settings, patients with pain are frequently seen in primary care in general practice, walk in-centres and the community (Kinnersley *et al.* 2000, Salisbury & Munro 2002, Hasselstrom *et al.* 2002). Recent changes to service provision due to increasing costs and demands for healthcare mean that nurses are frequently involved in providing these front line services (Jenkins-Clarke & Carr-Hill 2001, Salisbury & Munro 2002). There is evidence that nurse-led care contributes to improving access in primary care (Laurent *et al.* 2008). Nurse-led care can also improve the provision of specialist pain management (Mackintosh & Bowles 1997, Courtenay & Carey 2008a), and this is reported to be enhanced where nurses prescribe medicines (Stenner & Courtenay 2008a). Internationally, analgesia is one of the medication groups most commonly prescribed by nurses (Courtenay & Gordon 2009, Drennan *et al.* 2009, Fontana *et al.* 2000). However,

little is known, about the extent to which nurses are involved in prescribing medicines for pain management. This is an important gap in knowledge given the potential for nurses to contribute to improving the management of acute and chronic pain (Bucknall *et al.* 2001, Creedon & O'Regan 2010).

BACKGROUND

Increasing demand for healthcare and a shortage of doctors are driving forces behind initiatives to make better use of the expertise of all health professionals, including the expansion of nursing roles (World Health Organisation 2006). In response, the number of countries in which nurses have prescribing rights is increasing (Ball 2009, Kroezen *et al.* 2011). In the UK, registered nurses with at least three years clinical experience may undertake an additional qualification to prescribe (Department of Health (DH) 2006). Nurse prescribing is most prevalent amongst community and general practice nurses and is most often practiced within primary care, but is increasingly practiced in secondary care settings and by specialist nurses (Latter *et al.* 2010).

Worldwide, legislation enabling nurses to prescribe pain medication is subject to varying restrictions, particularly for strong opioids where a signature or agreement from a doctor is often required (Kaasalainen *et al.* 2007b, Logie & Harding 2005, Berry & Dahl 2007). In the UK, the two main forms of prescribing are Nurse Independent Prescribing (NIP) and Nurse Supplementary Prescribing (NSP). Through the former (NIP), nurses can prescribe any licensed medicine within their area of competence, including thirteen controlled drugs, which can be only be prescribed via certain routes of administration and

indications (DH 2006, Home Office 2007). Through NSP, any medicine can be prescribed where an initial diagnosis has been made by a doctor and a Clinical Management Plan (CMP) agreed between the doctor, NSP and patient. In 2010 there were over 20,000 nurses qualified as Nurse Independent Supplementary Prescribers (NISP) in the UK (Nursing and Midwifery Council 2010).

While factors influencing the quality of pain management are complex (Manias *et al.* 2002, Kaasalainen *et al.* 2007a, Powell *et al.* 2009b), poor access to medicines, due to inadequate prescribing and staff shortages, is a known barrier to effective pain management (Schafheutle *et al.* 2001). It is reported that specialist pain nurses with prescriptive authority can contribute to improving access to appropriate pain treatment, reducing errors and enhancing the quality of care (Stenner & Courtenay 2008a). Nurses who specialise in pain tend to be well qualified and trained in pain management (Williamson-Swift 2007, Stenner *et al.* 2011, Kaasalainen *et al.* 2007b). A survey of pain nurse specialists in the UK found that 12% had undertaken a prescribing qualification (Williamson-Swift 2007). By 2009, 28% of nurses working in inpatient pain services were qualified nurse prescribers (Stenner *et al.* 2011). These nurses prescribed a range of medications, including opioid and non-opioid analgesics and a range of medicines to control side effects of analgesia, at an average of 20 items per week for inpatients. The majority (86%) reported that prescribing had enhanced their ability to promote evidence-based practice for in-patient pain (Stenner *et al.* 2011).

There is some information available about the prescribing practices of nurses who are not dedicated pain specialists. A national evaluation of nurse prescribing in Ireland included

an audit of 142 patient records and prescriptions issued by a total of 24 nurses in eight acute or specialist hospitals. Analgesics were the most frequently prescribed drugs, and pain was the most common reason for prescribing across a range of settings, including emergency departments, maternity and surgery (Drennan *et al.* 2009). Pain relief medication is also frequently prescribed by nurse practitioners in the USA, some of whom prescribe controlled substances (Fontana *et al.* 2000, CIPHER *et al.* 2006). In Canada, the role of practice nurses and nurse practitioners in pain management have been explored (Kohr & Sawhney 2005, Kaasalainen *et al.* 2007b, Kaasalainen *et al.* 2010). Of 16 nurse practitioners working in long-term care and providing treatment for patients acute, chronic and palliative care needs, 93.7% prescribed non-opioid analgesics, 62.5% NSAIDs and 12.5% prescribed opioids. Of the Advanced Practice Nurses (APNs) studied by Kohr & Sawhney (2005), 58% saw patients who required pain relief but only 13% specialised in pain management or palliative care. Most (56%) influenced decisions to prescribe analgesics and 79% did this via providing advice to doctors and pharmacists. Within the UK, a survey conducted in 2009 reported pain as one of the five most common treatment areas for which all nurses prescribe alongside respiratory conditions, minor ailments, wound care and dermatology. Of the 42% who prescribed for pain, 53% worked in primary care (53%), 30.5% in secondary care, 22% across primary and secondary care (22%) and the remainder worked in other settings (Courtenay & Gordon 2009).

The literature indicates a range of care settings in which nurses may encounter and prescribe for patients with a need for pain medication. Gaining a better understanding of

the background, profile and prescribing practice of nurses who prescribe for pain will help inform education and support, as well as map development in this area of practice.

AIM

The aim was to provide a profile of UK nurses who prescribe medicines for patients in pain in terms of their background, experience, work settings and prescribing practice.

METHODS

Design

This was a descriptive questionnaire survey design. This paper reports on questionnaire data that formed part of larger survey designed to evaluate NISP in the UK.

Sample

A convenience sample of 214 UK nurses registered on the Association for Nurse Prescribing (ANP) membership database. The ANP is an independent organization providing support and education for nurses in their role as a prescriber. All participants were qualified as NISPs and prescribed medicines for the treatment of pain.

Questionnaire

Informed by previous research on nurse prescribing (Courtenay & Gordon 2009, Courtenay & Carey 2008c, Carey & Courtenay 2010, Stenner *et al.* 2011), the questionnaire was set out in four sections and included fixed choice and open ended

questions. There was an additional section with questions for nurses who prescribed for areas of practice other than pain, the findings for which are presented elsewhere.

The first section covered general demographic information, including: age, job title, geographical area, care setting, type of services provided, the number of nurse prescribers (NP) in the team, and future plans for NPs in their area of practice. Section two focused on prescribing qualifications and methods, levels of experience and areas of practice. Section three asked about prescribing for pain management, including the types of medication prescribed and the estimated number of items prescribed for pain in a typical week. Participants were then asked to indicate which of twelve ways they used their prescribing qualification in relation to the management of pain. The final section asked respondents about the level of training they had received to prescribe for pain, whether they had unfulfilled training needs and their preferred method(s) of learning for Continuing Professional Development (CPD).

Procedure and ethical considerations

All ANP members with a valid email address (n=859) were sent an invitation to participate in the survey by the ANP administrator. The invitation outlined the purpose of the study and gave assurance that respondents would remain anonymous and that participation was voluntary. Those who wished to participate were asked to use an electronic link to access the on-line survey disseminated by an internet-based survey tool Survey Monkey©. After three email reminders, 439 (51.1%) valid responses were received, of which 214 (49.8%) prescribed medicines for pain.

The questionnaire was piloted in March 2010 with 6 qualified nurse prescribers. Data from the pilot were not included in the main study. Minor revisions were made to the questionnaire as a result of the pilot. The survey was conducted between 1st May and 22nd June 2010. Ethical approval for the study was obtained from the relevant University ethics committee.

Data analysis

Microsoft Excel and SPSS version 17 were used for data entry and analysis. Descriptive statistics were used and non-parametric tests (Chi Square and Mann-Whitney) conducted to explore the differences between demographic variables and the number of items prescribed per week, number of products prescribed, and methods of using the prescribing qualification. Free text comments were subject to content analysis and independently reviewed by a second researcher.

RESULTS

Nurse profile and service provision

The sample comprised 214 respondents who prescribed medications for the management of pain. Demographic details are provided in Table 1. Respondents were represented in all geographical areas across the UK and a variety of job titles were reported, the largest category being primary care based practice nurses and nurse practitioners (35.5%, $n=76$). Just over 10% were emergency care or minor injury nurses (10.3%, $n=22$) and 11.7% ($n=25$) were pain or palliative care nurses.

The majority (82.2%, $n=176$) worked in a single care setting: half (50.0%, $n=107$) in primary care, 32.2% ($n=69$) in secondary care. The remainder worked across primary, secondary and other settings (13.5%, $n=29$), or worked in higher education, tertiary or intermediate care (4.2%, $n=9$). The main areas in which services were provided were general practice (37.8%, $n=81$) and hospital inpatient (25.7%, $n=55$) or outpatient (22.9%, $n=49$). The majority of participants were over 46 years of age (69.2%, $n=148$), worked full time (76.1%, $n=163$), had been qualified to prescribe for over three years (64.9%, $n=139$) and had more than five years experience prior to prescribing (72.4%, $n=155$).

Prescribing role and practice

All were qualified as NIP/NSPs. Sixty-seven (31.3%) were the only non-medical prescriber (NMP) in their team, 29% ($n=63$) reported one other NMP, 12.1% ($n=26$) reported two others and 23.4% ($n=50$) reported three to ten or more NMPs in the team. Plans to increase NMP in their area were reported by 43.9% ($n=94$) and 22.9% ($n=49$) reported that team members were currently undertaking the prescribing course.

The majority (87.4%, $n=187$) only used NIP, 8.4% ($n=18$) used both NIP and NSP and 1.9% ($n=4$) only used NSP. Of the 22 who explained why they used NSP, the reasons given were: legislative restrictions on prescribing controlled drugs (50.0%, $n=11$), trust policy (22.7%, $n=5$), personal preference (18.2%, $n=4$) and only being qualified to use NSP (9.1%, $n=2$).

Prescribing for patients in pain

Via NIP, 43.1% ($n=90$) prescribed up to 5 items per week for patients in pain and a further 42.6% ($n=89$) prescribed between 6 and 20 items per week. As can be seen on Table 2, emergency care nurses prescribed significantly more frequently than other nurses (Mann-Whitney, $p=0.002$). Of those using NSP, 34.5% ($n=10$) prescribed up to 5 items per week, 55.2% ($n=16$) between 6 and 20 items, and the remainder (10.3%, $n=3$) up to 50 items per week.

Acute pain, such as pain following injury or surgery, was the category most nurses prescribed for (40.6%, $n=87$). Twenty-seven (12.6%) prescribed for palliative pain, such as pain from cancer or advanced progressive illness, 26 (12.1%) prescribed for chronic or long-term pain, such as headaches and back ache. A further 72 (33.6%) prescribed for patients with a mix of the above pain types.

The types of medication prescribed for patients with pain are shown on Table 3. Almost all (95.3%, $n=204$) prescribed non-opioid analgesics such as NSAIDs and paracetamol, whereas 34.6% ($n=74$) prescribed stronger opioids such as morphine. A range of adjunct therapies and medicines to control the side-effects of pain medications were prescribed. Nurses with pain or palliative care in their job title (see Table 4) were significantly more likely to prescribe strong opioids than other nurses (Chi-square, $p=0.000$).

Additional use of prescribing qualification

Participants were asked to indicate which of a number of medicines management activities they engaged in (see Table 5). In addition to issuing prescriptions to patients directly (66.8%, $n=143$) or through hospital medicines charts (37.3%, $n=80$), respondents

also amended prescribed medication (81.3%, $n=174$), recommended over-the-counter medications (78.9%, $n=169$) and conducted medication reviews (72.9%, $n=156$). Few (20%, $n=43$) used patient group directions (PGDs), which act as a direction to a healthcare professional to supply and/or administer a prescription-only-medicine to a patient without referring back to a doctor for a prescription, or issued private prescriptions (7.9%, $n=17$).

Respondents prescribed for a range of conditions in addition to pain, the four most common areas being minor ailments (56.1%, $n=120$), wound care (49.1%, $n=105$), respiratory problems (47.7%, $n=102$) and dermatology (41.1%, $n=88$).

Specialist training in pain prescribing

Nearly all (97.2%, $n=208$) had received some form of training to prescribe for pain (see Table 1), most often as experiential or on-the-job training from clinicians or other healthcare professionals (73.5%, $n=158$) or training included as part of another course such as minor ailments (69.2%, $n=148$). A total of 48 (22.4%) had undertaken specialist or post-graduate training in pain management. Pain and palliative care nurses were more likely than other nurses to have specialist training in pain (Chi-square, $p=0.000$) and those with specialist training prescribed a greater number of medication types (Mann-Whitney, $p=0.000$) and were more likely to prescribe strong opioids (Table 4, Mann-Whitney, $p=0.000$). There were no significant differences between those with and without specialist training in pain and the number of ways the prescribing qualification was used (Mann-Whitney, $p=0.961$) or frequency of prescribing by NIP (Mann-Whitney, $p=0.601$).

Of the 210 participants who answered the question, the majority (81.9%, $n=173$) felt adequately trained to prescribe pain medication, a minority (8.6%, $n=18$) felt they were not adequately trained and 9.5% ($n=20$) were unsure. Analysis using Mann-Whitney tests showed no significant differences between those who did and did not feel adequately trained and frequency of prescribing ($p=0.613$), or range of ways in which the qualification was used ($p=0.547$), however, caution should be given to these results due to the unequal group sizes.

Continued Professional Development

Sixty-one (28.5%) reported to have CPD needs that they found difficult to fulfill and 73.8% ($n=158$) had no unfulfilled CPD needs. Analysis of comments from 56 respondents (with some giving multiple answers) showed the main CPD needs were for a) ongoing updates on pain management, new treatments and best practice in prescribing for pain ($n=18$), and b) training to expand knowledge of specific treatment areas, controlled drugs, or treating patients with complex pain and co-morbidities ($n=15$). The main barriers to CPD were financial and time/staff shortages ($n=11$), the availability of training at an appropriate level ($n=9$) and lack of support for role development ($n=1$).

The five most preferred methods for accessing CPD were: e-learning (74.3%, $n=159$), journals (69.6%, $n=149$), formal study days (62.6%, $n=134$), prescribing forum (57.5%, $n=123$) and work-based learning (49.5%, $n=106$). Under half preferred individual study (45.3%, $n=97$), non-accredited lunch or evening-time study sessions (42.9%, $n=92$). Smaller numbers preferred NMP conferences (38.3%, $n=82$) or specialist clinical

conferences (26.5%, $n=57$) and the least preferred method was action learning sets (7.5%, $n=16$).

DISCUSSION

Despite the limitations of a small sample size in proportion to the number of qualified nurse prescribers in the UK, the sample characteristics are similar to those previously reported in terms of age, hours worked, nursing experience and years qualified as a prescriber (Courtenay & Carey 2008b, Courtenay & Gordon 2009, Latter *et al.* 2010). It is possible, however, that the views and experiences of ANP members differ from non-members in that they may be more active in prescribing or keen to access support and education.

This survey describes, in more detail than has previously been available, the profile and practice of UK nurses who prescribe for patients in pain. Respondents included general practice nurses and nurses working in a variety of specialist areas and roles as well as those specialising in palliative care or pain management. Consistent with the prevalence of primary care based nurse prescribers nationally (Latter *et al.* 2010) the majority of participants (50%) were based in primary care. In addition, a sizeable proportion worked in out-of-hours services (12.6%) and walk-in-centres (10.7%). More nurses who prescribed for pain worked in these settings than described in a sample of 840 nurses prescribing independently in England where 24.3% were based in secondary care and 4.4% in walk-in-centres (Latter *et al.* 2010).

The top four areas in which nurses prescribed in addition to pain (minor ailments, wound care, respiratory and dermatology) mirror the top presenting conditions reported for walk-in centres and general practice settings offering same-day appointments (Salisbury & Munro 2002, Kinnersley *et al.* 2000, Shum *et al.* 2000). As many participants provided general practice and immediate-access services, this suggests that a large proportion predominantly treated patients with minor injuries and illnesses who required analgesia as part of their treatment. The frequency with which non-opioid and weak opioid analgesics were prescribed supports this assumption, together with acute pain being the most commonly treated pain type. Nurses have been increasingly involved in providing services for minor injuries and illnesses as part of UK government policy to reduce waiting times and improve access to healthcare (DH 2000). Nurse prescribing was intended to facilitate such improvements (DH 2006) and these findings demonstrate its contribution to enhancing access to pain medication.

Strong opioids, including controlled drugs such as morphine, were prescribed by fewer (34.6%) nurses and were significantly more likely to be prescribed by nurses in pain management roles and those with specialist training in pain. This finding indicates that nurses who prescribe controlled drugs undertake training for this task. Pain nurse specialists are known to have a high level of specialist education (Williamson-Swift 2007). A previous survey of nurses working in inpatient pain teams found that 75% prescribed strong opioid medication and that over 54% were qualified in pain management to masters or PhD level (Stenner *et al* 2011). Our findings reaffirm that pain nurse specialists have a higher level of training in pain than other UK nurses and that they prescribe a wider range of pain medications.

Nurses are required to be competent in any given area for which they prescribe (DH 2006). Having specialist training and education in their area of practice has been linked to increased rates of prescribing for nurses working within dermatology (Courtenay *et al.* 2007) and diabetes (Courtenay & Carey 2008c) and for doctors prescribing for chronic pain (McCracken *et al.* 2006). In contrast, no differences were found between the overall prescribing rates of those with or without specialist training in pain in this study. This may reflect that detailed specialist knowledge in pain management is not required to prescribe non-opioid analgesics for pain related to minor illness and injury. Very few (2.8%, $n=6$), however, reported not to have received any training to prescribe for pain, the majority having undertaken a combination of on-the-job training, study days and conferences or to have studied pain as part of a wider course. Double the number of nurse prescribers in this survey (22.4%) had undertaken specialist training compared to general practitioners surveyed in Southwest England, only 10% of whom had specialist training in pain (McCracken *et al.* 2006).

Despite the relatively high level of training, around 18% of nurses were unsure if they were adequately trained to prescribe for pain and 28% had unmet CPD needs. Nurses have a professional responsibility to keep up-to-date with clinical and professional developments, including NMP policy and best practice in the management of conditions for which they prescribe (DH 2006). In turn, the employer has a responsibility to ensure that there is access to appropriate training or education, plus support for self-directed study. Specialist pain nurses are reported to use a wide variety of resources for CPD, including peer groups, journals, prescribing forum, newsletters, websites, conferences

and formal training events (Stenner & Courtenay 2008b). Similarly, a range of methods of accessing CPD were acceptable to participants in this study, although the preference was for more forms offering the greatest flexibility of access, namely e-learning and journals.

Access to CPD is particularly important where nurses are developing new areas of practice. When analysing changes to the service delivery areas in which nurses are involved, Latter *et al.* (2010) identified dermatology, pain management and infections as three areas with the largest increase in involvement since nurses had qualified to prescribe: there was a 44.6% increase in the number of nurses engaged in pain management as a new area of prescribing practice. This reiterates the importance of ongoing training in this area in which nurses frequently prescribe, particularly given the potential for nurses to improve the use of evidence-based approaches to pain management if given appropriate training and guidance (Stenner & Courtenay 2008a, Creedon & O'Regan 2010). This survey indicates that the number of nurses prescribing for pain is increasing and that NMP is expanding within teams where nurses prescribe for pain. Peer support is known to facilitate uptake and use of the prescribing qualification within practice and having more than one NMP per team is one way of optimising NMP and providing support (Otway 2001, Carey *et al.* 2010). As more nurses include pain as an area of practice development, access to appropriate and accessible training and support will become increasingly important if standards of care are to be maintained.

Importantly, this survey provides evidence of the range of ways nurses use their prescribing qualification. The most frequently reported activities were to amend

medicine, recommend over-the-counter medicines and conduct medication reviews. Around 43% also recommended medication for GPs to prescribe; a practice reported elsewhere by nurses as a means of overcoming barriers to prescribing directly for patients (Stenner & Courtenay 2007, Kohr & Sawhney 2005). Correcting prescribing errors has previously been reported by specialist pain nurses (Stenner & Courtenay 2008a) and children's nurses (Carey *et al.* 2009) as a means of using prescribing knowledge to improve care. Prescribing knowledge therefore extends beyond the act of issuing prescriptions to impact on many aspects of medicines management.

Compared to other countries, there are fewer restrictions in the UK on which groups of nurses are entitled to prescribe and the level of education and experience they require to do this (Kroezen *et al.* 2011). The wide range of contexts in which nurses prescribe pain medications is a reflection of the many and varied roles held by nurse prescribers in the UK, as well as reflecting the prevalence of pain in the population. The findings therefore have implications for other countries that may wish to improve access to pain treatment, although the impact of nurse prescribing in this area remains to be fully evaluated.

CONCLUSION

This study demonstrates that nurses working in a wide variety of roles and settings in the UK are prescribing for pain and use their prescribing knowledge to influence medicines management. Indications are that a majority treat patients with acute pain related to minor injuries and illnesses who are seen within general practice and immediate-access settings such as emergency care, walk-in-centres and out-of-hours clinics. Those with specialist

training in pain prescribe a wider range of pain medications, are more likely to prescribe strong opioids and are more often in pain management or palliative care roles.

Relevance to clinical practice

Nurses are increasingly involved in managing and prescribing medication for the treatment of pain and this change must be acknowledged if potential benefits for improving pain management are to be realised. While nurses may improve access to pain treatment, the quality of care they provide will depend on their level of specialist training and knowledge. The majority of nurses surveyed had undertaken training to prescribe for pain, however, access to ongoing training is vital to support nurse development in this area of practice as nurses extend their scope of practice.

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Table 1: Demographic details of sample

	<i>n=number of responses</i>	<i>% of total sample</i>
Hours worked (n=213)		
Full time (more than 30 hours per week)	163	76.1
21-30 hours per week	35	16.3
Less than 20 hours per week	15	7.0
Age range (n=213)		
Under 35 years old	8	3.7
36-45	57	26.6
46-55	111	51.9
56 and over	37	17.3
Geographical location (n=213)		
South East England	41	19.2
Scotland	29	13.5
London	24	11.2
South West England	24	11.2
Eastern England	22	10.3
West Midlands	20	9.3
North West England	17	7.9
Yorkshire & Humber	11	5.1
Wales	8	3.7
Northern England	8	3.7
East Midlands	8	3.7
Northern Ireland	1	0.5
Job title (coded)		
Practice nurses & Nurse practitioners (primary care)	76	35.5
Clinical nurses and nurse clinicians with no named specialty (including: nurse consultant, matron, lead nurse, charge nurse, sister, nurse practitioners)	50	23.4
Nurses with named specialist area (other than pain or emergency), e.g. diabetes, respiratory, long term care.	27	12.6
Pain/palliative/Macmillan nurses	25	11.7
Emergency care & minor injury nurses	22	10.3
Community nurses (District Nurse, Health Visitor, Community Matron)	7	3.3
Other (managerial, higher education, prison, armed forces)	4	1.9
Missing	3	1.4
Service setting		
General practice	81	37.8
NHS hospital inpatient	55	25.7
NHS hospital outpatient	49	22.9
Community	40	18.7
Out-of-hours	27	12.6
Walk-in-Centre	23	10.7
Education	14	6.5
Community clinic	8	3.7
Independent sector	6	2.8
Prison or armed forces	6	2.8
Years qualified as a prescriber		
< 1 year	17	7.9
1-3 years	58	27.1
3-5 years	71	33.2
> 5 years	68	31.8
Experience in area of practice before becoming prescriber		
< 1 year	5	2.3
1-2 years	8	3.7
2-5 years	43	20.1
> 5 years	155	72.4
Training to prescribe for pain (more than one response could be given)		
Experiential on-the-job training	158	73.8
Pain management included in another course	148	69.2
Learning not accredited by a university (e.g. study days, conferences)	111	51.9
Specialist course in pain management	39	18.2
Post graduate diploma or certificate in pain	12	5.6
Masters or PhD related to pain	17	7.9
No training	6	2.8

Table 2. The number of items prescribed in a typical week for pain management by nurse prescribers by job category

Job Title	Number of items prescribed						Total
	<10	11-20	21-30	31-40	41-50	>50	
Practice nurses & Nurse practitioners (primary care)	46	12	10	4	1	0	73
Clinical nurses with no named specialty	31	9	4	2	0	0	46
Pain or palliative care nurses	14	8	1	0	1	0	24
Emergency care or minor injury nurses	6	9	2	1	1	3	22
Nurses with other named specialty	25	2	0	0	0	0	27
Community nurse	6	1	0	0	0	0	7
Other	4	0	0	0	0	0	4
Missing job title	1	2	0	0	0	0	3
Total	133	43	17	7	3	3	206
Emergency care or minor injury nurses	6	9	2	1	1	3	22
Other nurses	127	34	15	6	2	0	184
Mann-Whitney U test significance 0.002							

Table 3. Medications prescribed for pain management

Analgesic medication	Number prescribing	% of sample (n=214)
Non-opioid analgesics (e.g. ibuprofen, paracetamol)	204	95.3
Compound preparations (e.g. co-codamol)	184	86
Weak opioids (e.g. codeine phosphate, Tramadol)	158	73.8
Strong opioid analgesics (e.g. morphine, buprenorphine, Oxycodone)	74	34.6
Adjuvant and medication for side effects		
Laxatives	138	64.5
Anti-emetics	126	58.9
Anti-depressants	79	37
Anti-convulsants	53	24.8
Other adjuvant therapy	18	8.4

Other: steroids (6), topical anaesthetics (4), TENS machine (1), Naloxone (3), ketamine (1), antispasmodics (2), nitrous oxide (1)

Table 4. The effect of nurses with a pain job title and specialist training on the prescribing of opioids

	<u>Prescribe strong opioids</u>					<i>Chi-Square</i>
	Yes		No			
Pain job title	<i>n</i>	%	<i>n</i>	%	Total	
Yes	23	100	0	0	23	X^2 49.111 $p=0.00$
No	51	26.9	138	73.0	189	
Total	74	34.9	138	65.1	212	
Specialist training	<i>n</i>	%	<i>n</i>	%	Total	
Yes	34	72.3	13	27.7	47	X^2 37.705 $P=0.00$
No	39	23.9	137	84.0	163	
Total	73	34.8	137	65.2	210	

Table 5. Methods of using the prescribing qualification for patients who require medicines for pain management

Method	Number using method	% of sample (n=214)
Amend prescribed medication (i.e. stop, alter or correct dose)	174	81.3
Recommend patient buys medication over the counter	169	78.9
Medication review	156	72.9
Issue FP10 direct to patient	143	66.8
Recommend medication via telephone, email/letter to GP	93	43.4
Prescribe via hospital medication charts	80	37.3
Issue hospital specific prescription direct to patient	65	30.3
Remote prescribing by telephone, email or fax	58	27.1
Sign FP10 issued via GP repeat prescribing system	58	27.1
Recommend medication via patient hospital notes	61	28.5
Supply and administer medicines via PGD	43	20
Issue private prescription direct to patient	17	7.9

Abbreviations: GP = General Practitioner, PGD = Patient Group Direction, FP10 = a prescription form purchased by a trust for prescribing medication that is to be dispensed by community pharmacies in the UK