International Emergency Nursing 22 (2014) 10–17

Contents lists available at SciVerse ScienceDirect

International Emergency Nursing

journal homepage: www.elsevier.com/locate/aaen

A comparison in independent nurse prescribing and patient group directions by nurse practitioners in the emergency department: A cross sectional review

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ARTICLE INFO

Article history:
Received 12 December 2012
Received in revised form 25 March 2013
Accepted 26 March 2013

Keywords:
Emergency department
Emergency nurse
Independent non-medical
Nurse practitioner
Patient group directions
PGD
Prescribing

ABSTRACT

Aim: To explore nurse prescribing in an emergency department using patient group directions versus independent nurse prescribing.
Background: Patient group directions allow restricted access to medication in unselected patients using pre-set criteria. Independent nurse prescribing is a flexible method of medication provision. Limited data exists on the application of either method in clinical practice.
Methods: Exploration of patient group directions and independent nurse prescribing application in an emergency department using 617 nurse practitioners' clinical notes; 235 and 382 respectively. Patient attendances from 01/07/2009 to 30/06/2010 were randomly sampled. Prescribing frequency; range of medications and diagnoses; independent episode completion and prescribing safety was explored.
Results: Statistical difference exists in prescribing frequency between the independent nurse prescribers (51.6%, $n = 197$) and patient group directions (32.3%, $n = 76$). Appropriate medication given by 99.7% ($n = 381$) of independent nurse prescribers, with 1 contraindicated drug provided. The limitations of patient group directions was highlighted in 11.8% ($n = 9$) of cases, however all drugs given were appropriate for the diagnosis. No statistical difference in independent episode completion.
Conclusions: Nurses provide appropriate medication in an emergency department. Patients being managed by nurse prescribers were more likely to receive medication. Further investigation is required to justify this.

Introduction

Advanced nursing practice has augmented existing staffs' skills. The emergency nurse practitioner is one role that has enhanced patient experience and allowed modernisation of emergency department (ED) services (Sakr et al., 2003; Nixon, 2008). Nurse practitioners are regarded as autonomous, accountable and professional practitioners, capable of independently completing episodes of care (Nixon, 2008), particularly now legislation permits the prescription of medication (Snowden, 2008).

In the United Kingdom (UK) 'The Medicines Act 1968' regulates medication provision under three dispensing categories; namely prescription only (POM), pharmacy (P) and general sales list (GSL) medicines. In emergency and urgent care settings nurses can independently provide POM through patient group directions (PGDs) or independent nurse prescribing (INP). Evidence relating to the provision of medication independently by nurses using either method is lacking, particularly in hospital based settings. This study set out to explore how each method is applied and how they compare in practical application in the provision of high quality, safe patient care.

Although this study explores the application of prescribing legislation within the UK, the benefits of nurses having increased access to medications is being realised in many countries around the world (Creedon et al., 2009). As legislation regarding nursing scope of practice and medication provision varies internationally, it is difficult to compare UK practice with other countries. Nevertheless by exploring the issues surrounding nurses' access to medication it may assist other countries in developing legislation and protocols in this field.

Background

This report is the outcome of a project by the primary author to complete a Master's of Research; therefore during this period supervision was provided clinically and academically.

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http://dx.doi.org/10.1016/j.ienj.2013.03.009

PGD and INP requirements

PGDs were first introduced in the UK in 1998 (RCN, 2004) and permit all staff, locally assessed as competent, to legally provide specific medications under pre-determined clinical conditions without the need for a separate qualification. These documents are rigid in their application and often cause frustration in their design and ongoing management (Griffith, 2008; McHale, 2010). Legally they must be signed by a senior doctor and pharmacist and authorised by the organisation where they are applied. PGDs are ideal documents to be used in emergency settings as they can be used to manage the medication needs of the most common type of presentations without identifying individual patients prior to use. Medication can only be supplied or administered if the patient meets the pre-set criteria and their safety is not compromised in doing so (MHRA, 2010). Those managing PGDs must ensure staff using them are competent and are kept up to date with appropriate changes. Healthcare providers using a PGD must be registered members of their profession, acting under an appropriate code of professional conduct and meet locally set training and competency standards (National Prescribing Centre (NPC), 2009). PGD users supply and/or administer a medication against the document and are not technically prescribing it. To make comparisons easier, the term 'prescribing' is used in reference to a PGD user for the purposes of this paper.

INP on the other hand is a much more flexible method of medication provision. Since 2006, INP have had full access to The British National Formulary (BNF), allowing them to prescribe all UK licensed medications within their competence (except some controlled drugs). From 2009 the legislation was updated further, allowing the prescribing of unlicensed medications and combinations of mixed medicines if clinically appropriate and supported by the employer (Department of Health (DH) 2010). Subsequent to the data collection phase in April 2012 INPs have been permitted to prescribe any schedule 2–5 controlled drugs for any medical condition, within their clinical competence, removing previous limitations which were in place during the study (DH, 2012). To become an INP, candidates must be professionally registered, have a minimum of 3 years clinical experience and meet specific training requirements (NMC, 2006). Training however can be expensive and requires many hours of personal study by individual nurses which is often not recompensed.

Supplementary prescribing is another method by which nurses can provide medication independently. As this requires a pre-arranged clinical management plan created between the prescriber, the patient and a medical lead they are generally not suitable in the ED patient population (DH, 2006).

Supply of medication in practice

Having access to medication enhances autonomous practice and therefore has obvious benefits for patient experience, access and service delivery. However it is important to determine the need for such skills to justify the resources required for PGD implementation and INP training.

A national UK questionnaire found INP was used frequently in practice. The frequency of prescribing in a typical week ranged from no items in 10% ($n = 116$), 1–5 items in 23.5% ($n = 274$) and over 30 items in 21.2% ($n = 247$) of cases. It was concluded that while some nurses prescribe routinely others do not (Courtenay and Carey, 2008).

Courtenay and Carey's (2008) study randomly sampled 25% of all nurse prescribers on the NMC database (1992/7968), receiving 1377 completed questionnaires (69% response). Demographics detailed 75% had a degree or higher with more than 5 years experience and 42.7% had been prescribing for over 2 years. Independent prescribing had been used by 87% ($n = 1107$) and supplementary by 44.6% ($n = 568$). A high level of experience, senior roles and academic qualifications was also found by Latter et al. (2007) when they surveyed 246 prescribing students recently registering their qualification with the NMC in 2002–2003, finding 60% ($n = 147$) had a first degree and 21% ($n = 51$) had a Masters level qualification. High academic qualifications and senior nursing roles were also highlighted in other studies (Bradley et al., 2005; Courtenay et al., 2006), identifying that nurse prescribers exceeded experience and academic qualifications required by the NMC.

Studies looking at PGDs are somewhat limited. Brooks et al. (2003) identified that out of 1169 patients that received antibiotics at a walk-in centre, 72% ($n = 847$) of them were administered under a PGD. Using clinical audit the authors identified that 99% of these were within protocol and supplied 'judiciously and safely'. Concerns were however raised by Deave et al. (2003) regarding the legal use of PGDs in practice. They found that only 35% (7/20) of walk-in centres had identified all the components required for safe and appropriate use, as set out by the NHS (Deave et al., 2003). The study reviewed clinical notes where patients received antibiotics under a PGD at 20 different walk-in centres. Deave et al. (2003) questioned the appropriateness of PGDs in practice after identifying the extent of poor documentation which failed to comply with the legal requirements These findings were in direct contrast to Brooks et al.'s (2003) conclusions.

Safe prescribing

To ensure safe medication and avoid prescribing errors it is essential to consider the presenting complaints, drug interactions and possible allergic responses The importance of these considerations were highlighted in a combined review of 22 different studies that found 67% ($n = 2516$) of cases had errors in the medication history, with 1 study reporting that 27% of prescribing errors were linked to poor medication histories (from all types of prescriber) (Young et al., 2009). Latter (2008) looked at these elements in an observational study in 2003 and concluded that nurses provide safe and appropriate medication decisions. From 118 observed consultations at 10 different sites, 94% ($n = 111$) of the presenting complaints were identified and subsequently explored in 93% ($n = 110$) of cases. In 77% ($n = 91$) of the consultations current medications were explored, however only 36% ($n = 42$) considered allergies. Brooks et al. (2003) and Deave et al. (2003) identified similar shortfalls in documentation as Latter (2008), and concluded that improvement in documentation was required.

In addition, within Latter's (2008) study, 84 consultations were observed to assess prescribing decisions (Latter, 2008). The observations identified that 84% ($n = 70$) of the prescribing episodes were appropriate and effective in 83% ($n = 69$) of cases, but in 8% ($n = 7$) medication was provided when it was not indicated. The panel nevertheless concluded that the majority of clinical episodes were appropriate, however, the importance of assessment and diagnostic skills was highlighted (Latter, 2008). It was also indicated that nurses regularly provided information regarding the medication regimes and checked understanding of the treatment but only provided sufficient information regarding the potential of and management of side effects in 48% ($n = 57$) of cases.

Local application

The authors' healthcare organisation has identified that improved access to medication has many benefits which include reduced waiting times; timely access to medications; improved medicines management; better symptom control; improved nurse/patient relationships; better use of staffs' skills; facilitation of autonomous practice and spreading of the workload throughout