DOI:10.1046/j.1365-2125.2003.02023.x

EDITORS' VIEW

Nurse prescribers & reporters

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Nurse prescribing

Prescribing is no longer the sole province of doctors and dentists. There are now about 20 000 nurse prescribers in the UK. And other healthcare professionals who are or are due to become prescribers include pharmacists, chiropodists and podiatrists, dieticians, occupational therapists, optometrists, orthoptists, physiotherapists, prosthetists and orthotists, radiographers, and speech and language therapists. In 1986 the Cumberlege Report, in a feminist context, recommended that nurses should be able to prescribe from a limited list of 'items and simple agents' [1, 2]. It was some time before further developments occurred, but eventually, in the late 1990s, a formulary for Community Nurses (District Nurses and Health Visitors) (now known as the Nurse Prescribers' Formulary) was introduced throughout the National Health Service in the UK. Then the 1998 and 1999 Crown Reports [3] recognized the potential for two types of prescriber, dependent prescribers (now called supplementary prescribers) and independent prescribers, acknowledged the role of group protocols ('Crown protocols', now called Patient Group Directions), and recommended that suitably qualified nurses be authorized to prescribe from a defined formulary in defined circumstances. The Extended Nurse Prescribers' Formulary was introduced in April 2002.

There are now two ways in which nurses can prescribe: supplementary prescribing and independent prescribing. Patient Group Directions cover the supply and/or administration of medicines, not prescribing. They are drawn up locally by doctors, pharmacists, and other health professionals, are signed by a doctor or dentist, as appropriate, and a pharmacist, and are approved by an appropriate body, such as a local Drug and Therapeutics Committee.

Supplementary prescribing

Supplementary prescribing [4] is a voluntary prescribing partnership between an independent prescriber and a supplementary prescriber, to implement an agreed patient-specific Clinical Management Plan, with the patient's agreement. In this context, an independent prescriber is a doctor or dentist (not an independent nurse prescriber) and the supplementary prescriber is a nurse or a pharmacist. The conditions for supplementary prescribing are that:

- the independent prescriber must make the diagnosis;
- the supplementary prescriber must be a registered nurse, registered midwife, or registered pharmacist;
- there must be a written Clinical Management Plan specific to a patient and to that patient's condition(s);
- the Clinical Management Plan should set out the extent to which prescribing responsibilities are to be undertaken by the supplementary prescriber.

The desiderata of supplementary prescribing are that:

- there should be good communication among all prescribers and ready access to the patient's records;
- prescribing and dispensing responsibilities should be separate;
- the Clinical Management Plan should be simple.

The restrictions on supplementary prescribing are that controlled drugs and unlicensed drugs cannot be included, although it is possible that medicines legislation will be altered to allow such prescribing.

Independent prescribing

Independent prescribing means that the prescriber takes full responsibility for:

- assessing the patient clinically;
- establishing a diagnosis;
- establishing the clinical management of the patient's condition(s);
- prescribing when necessary;
- determining the appropriateness of any prescription.

Suitably trained nurses can use two formularies.

- The Nurse Prescribers' Formulary, a limited formulary for Community Nurses. It consists primarily of appliances and dressings plus a few Prescription-only Medicines (POMs).
- The Nurse Prescribers' Extended Formulary (NPEF), a formulary from which independent nurse prescribers

can prescribe medicines for conditions in the following categories: minor ailments; minor injuries; health promotion; palliative care. Other categories are soon to be added. These nurses can prescribe all Pharmacy-only (P) medicines and General Sales List (GSL) medicines that are prescribable by doctors for conditions within the above categories, together with about 140 POMs.

Currently in the UK there are about 1000 qualified independent nurse prescribers, 850 independent nurse prescribers in training, 750 practice nurse prescribers, and 120 A & E/Minor Injuries Unit nurses and 80 Walk-In-Centre nurses trained or being trained as independent nurse prescribers.

Cost–benefit of nurse prescribing

In 1991 the UK Department of Health commissioned a cost–benefit analysis by Touche Ross [5]. They concluded that some nurses were already de facto prescribers, since many nurse-generated prescriptions were being signed by GPs, and both GPs and pharmacists trusted nurses to recommend prescribed medicines, which were then supplied without a formal prescription, or at least in advance of one. They also concluded that nurse prescribing would save time and that patients would have faster access to medicines, but that nurse prescribing would not save money.

The time saving estimated by Touch Ross was not large: GPs, they thought, would save less than 15 min a week and Community and Practice Nurses less than 1 h a week.

Since then the Prescribing Support Unit has reviewed Nurse Prescribing from 1998 to 2001 and has concluded that:

- prescribing by Community Nurses accounted for only 1.9% of the total expenditure on medicines in their Formulary in 1999, rising to 4% in 2001;
- prescribing by Practice Nurses accounted for 0.06% of total expenditure;
- nurse prescribing had not affected national costs;
- most nurse prescribing substituted for prescribing by GPs;
- GPs continued to be responsible for prescribing the vast majority of items in the Nurse Prescribers' Formulary and their associated costs.

The Touche Ross prediction that money would not be saved was thus supported by this review, although it is too soon to be sure about that.

Problems

It has been suggested that the rate at which nurse prescribing is being implemented holds grave dangers [6]. It is certainly not clear that nurse prescribers are being properly educated in the basic sciences of pharmacology and clinical pharmacology relevant to good prescribing. In one study, for example, it was found that teaching of pharmacology in nurses' courses varied from a few hours to a hundred hours [7, 8]. Since then, it is true, formal courses for new nurse prescribers have been instituted. However, even with such courses in place, it is not certain that nurses are becoming expert in the numerous elements of clinical pharmacology that underpin practical drug therapy, including pharmaceutics, pharmacokinetics, pharmacodynamics, adverse drug reactions and interactions, pharmacogenetics, pharmacoepidemiology, and pharmacoeconomics. And this does not take into account the need for accurate diagnosis and understanding of the pathophysiology of disease, which also underpin good prescribing.

Hospital doctors have been reported to make errors in 1.5% of prescriptions, and potentially serious errors in 0.4% of prescriptions, a total of 34 potentially serious errors per week in one teaching hospital [9]. It is likely that nurses will make as many prescribing errors; with less training they may make more.

And concerns are not restricted to current nurse prescribers or indeed to nurses. A further extension of nurse prescribing in emergency/first-contact settings is under way, and proposals are being developed to allow supplementary prescribing by the majority of the allied health professions and independent prescribing by, among others, pharmacists.

Nurse reporting of suspected adverse drug reactions

Whatever concerns there may be about the increasing amount of prescribing being undertaken by nurses, it is proper that nurses should be reporting suspected adverse drug reactions. In this issue of the *Journal* Ranganathan *et al*. (pp. 658–663) report on how often they do it in Wales. Hitherto in the UK only doctors, dentists, coroners, and (since 1997) pharmacists have been allowed to report suspected adverse reactions on yellow cards. However, in 2002 nurses were admitted to the fold, in order to allow them to take part in the monitoring of the new meningococcal serogroup C conjugate vaccine that has been used in a national vaccination programme since 1999, and for which a high level of reporting was desirable.

During 16 months 534 117 doses of the vaccine were administered in Wales. Of 1095 yellow cards that were submitted (detailing 1952 suspected reactions), nurses completed 48%, GPs 27%, and hospital doctors 24%. The higher rate of reporting by nurses is encouraging, although it may not carry over to suspected reactions to other medicinal products, since nurses are likely to be in

closer contact with patients who receive immunizations than with other patients. Furthermore, hospital doctors report under 10% of the reactions that they should [10], so even with the involvement of nurses there is still likely to be under-reporting. However, these results suggest that nurses should be allowed to report all suspected adverse drug reactions on yellow cards according to the current guidelines for reporting [11].

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