A review of non-medical prescribing: current practice and future developments

J James

Summary

The road to non-medical prescribing in the UK has been a long and somewhat thorny one. It is now almost 20 years since the initial report highlighting the need for nurse prescribing (now referred to as non-medical prescribing). This article explores the non-medical prescribing process, focusing on both current practice and exciting new developments. The legislation in the UK that is leading implementation and practice, the current format of practice and proposed new initiatives will be examined. The perceived need for non-medical prescribing and associated benefits will be explored, together with the disadvantages relating to people with diabetes and the health professionals caring for them. Issues and concerns from diabetes specialist nurses and other health professionals regarding nurse prescribing will be debated. We will begin this journey in England and follow the path to nurse prescribing in other European countries.

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Key words

Diabetes, non-medical prescribing, competency-based training

Background to non-medical prescribing in the UK

For nearly two decades, non-medical prescribing has played a significant part in the agenda of the UK Department of Health. Following the Cumberledge Report,[1] district nurses and health visitors were granted access to a nurse-prescribing programme and allowed to prescribe from an extremely limited formulary, mainly composed of dressings and topical agents.[2]

A subsequent report[3] reviewing prescribing, supply, and administration led to a proposal in 2000 that access to training and the ability to prescribe be extended to other nurses. The 2000 National Health Service Plan[4] endorsed these proposals and recommended that by 2004 the majority of nurses should be able to prescribe using the processes of independent and supplementary prescribing; or be able to supply medicines under patient group directives. Furthermore, it was recommended that up to 1000 pharmacists also be given the ability to prescribe through supplementary prescribing.

Author

J James SRN Dip Nursing, BA
Senior Diabetes Specialist Nurse, Greater Peterborough Primary Care Partnership

Correspondence to:
J James, 24 Sebrights Way, Peterborough, PE3 9BT
e-mail: june_james24@hotmail.com

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The Health and Social Care Act[5] passed primary legislation to allow this extension of non-medical prescribing. A consultation exercise following this paper ultimately led to access to training for specialist nurses working in chronic disease management.[6] Supplementary prescribing was authorised in December 2002. This initiative was applicable to those working in England, Wales and Northern Ireland.

Training in England

The first cohort began training in January 2003; an outline curriculum had been approved by the English National Board in 2001.[7] This was competency-based and intended for all nurses undertaking independent prescribing from a limited formulary. The course comprises of 25 taught days and a further 12 days in practice. However, with the addition of a supplementary prescribing process, a further one or two taught days and an extra day in practice were added, making a total of 39- to 40-days study. The courses were originally designed to be taken over a three-month period, but the work proved too intensive for most nurses and the study period was extended to six months. The initial course requirements are shown in Box 1.

The course programme was comprehensive and emphasis was firmly placed on safe, effective prescribing. Content included a thorough knowledge of the legislation governing non-medical prescribing and an in-depth study into the working of the British National Formulary.[8] The competencies required by the non-medical prescriber were outlined by the National Prescribing Centre.[9] Other topics encompassed in the course programme are shown in Box 2. There were limitations to the course in terms of diabetes prescribing, which continue to exist. All courses are generic and participants come from many areas of nursing. Each nurse should be capable of study at degree level and have a minimum of three years post-

registration experience. Students were expected to have previous specialist knowledge of the medication relating to their own area of practice.

Independent prescribing

The different processes for both independent and supplementary prescribing led to some anxiety and confusion for nurses and pharmacists regarding enrolling for extended training in prescribing. Independent prescribing is defined clearly by the Department of Heath: 'the nurse prescriber takes responsibility for the clinical assessment of the patient, establishing a diagnosis, and the clinical management required, as well as the responsibility for prescribing where necessary, and the appropriateness of any prescription'.[10]

Nurses who are registered as independent prescribers can prescribe from the extended nurses' formulary. This includes around 240 prescription-only drugs for a range of around 110 specified medical conditions. In respect of diabetes care, this formulary includes pen devices, pen needles, lancets, urine, blood testing strips and Hypostop gel. It did not initially include oral blood glucose-lowering agents, statins, low-dose aspirin or the majority of insulin preparations. However, when a further 60 medications and 30 new medical conditions were added for emergency or first-contact care recently, soluble insulin was included for emergency care only.

There are some inconsistencies in terms of the medication that can be prescribed with this system. For example, the independent prescriber can prescribe folic acid in a 400 μg dose but not in the 5 mg dose needed for diabetes pregnancy care. Aspirin 300 mg tablets can be given for a headache, but the 75 mg dose cannot be prescribed for cardiac protection.

- Registration with a relevant body (e.g. RCN)
- Ability to study at degree level
- At least three years post registration nursing experience
- 100% attendance for the taught component
- Submission of a practice-based portfolio demonstrating competencies, achievement, and progress through case studies for both independent and supplementary prescribing
- Objective structured clinical examinations
- A written paper comprising both short questions and an essay component examining decision making

Box 1. Entry and course requirements

Supplementary prescribing

Supplementary prescribing is defined as 'a voluntary partnership between an independent prescriber (doctor or dentist) and a supplementary prescriber (registered nurse) to implement an agreed patient-specific management plan with the patients' agreement'.[11] As the extended nurses' formulary is extremely limited in respect of diabetes medications, most diabetes specialist nurses prescribe using this process.

When a clinical management plan (CMP) is agreed, it enables the non-medical prescriber to prescribe from a range of pharmaceutical products for any condition specified on the plan. This can include all medicines, apart from unlicensed trial drugs. Once a CMP has been agreed, it must indicate agreement between the doctor, nurse and patient, and must be updated annually – although this time limit can be extended in the management of chronic illness. The supplementary prescriber (nurse) can transfer responsibility for prescribing back to the independent prescriber (doctor) at any time, should they feel that the patients' condition no longer falls within their own area of competence. The use of agreed management plans leads to a partnership in care for the person with diabetes and diabetes health professionals. This falls within the National Service Framework for Diabetes[12] ethos of supporting self-management and empowerment.

Clinical management plans

In practice, it is not necessary to use many types of CMP. I use only three: management of type 1 diabetes (insulin prescribing); management of type 2 diabetes (oral hypoglycaemic agents leading to the initiation of insulin if clinically indicated); and pregnancy care to include insulin treatment and the use of folic acid. An example of a CMP for the management of type 1 diabetes is shown below. I felt it was important only to prescribe medication with which I was familiar, and so initially included only insulin treatment on the plan. The CMP shown below now has statins added. Other examples of CMPs can be found on the Department of Heath website.[13] Each plan must indicate the supporting evidence for prescribing. We are fortunate that guidelines for best practice are easily accessible for diabetes care. Those from the National Institute for Healthcare and Clinical Excellence (NICE), Diabetes UK, and the Scottish Intercollegiate Guidelines Network can all be used to support clinical practice. Particularly for nurses working in remote areas, or where there is a shortage of medical staff, access to a clinician to agree a clinical management plan can be a real problem and a source of frustration.

Theory into practice

Whilst the training is comprehensive, actually putting the process into practice can be complicated and difficult. Significant delays in nurses obtaining prescription pads have been reported; this can take as long as five months after completion of the course. In some Trusts, nurses were required to have their CMP templates approved by medicines-management committees. This caused extensive delays to practice. There was also debate as to whether CMPs needed to be signed or whether they could indicate agreement. At present, many nurses in primary care are unable to use an electronic method for writing prescriptions; but processes are gradually coming into place for this. There are as yet no formal requirements for continual professional development. These teething problems were inevitable. However, new publications are about to be issued, such as The Nursing and Midwifery Council's (NMC) Standards for Non-medical Prescribing; following this, some of the concerns around the prescribing process will be addressed. There are now around 6000 nurses registered with the NMC as supplementary prescribers.

Why nurse prescribing?

Arguments may be raised regarding the introduction of non-medical prescribing: Who will benefit? Why offer this additional responsibility to nurses? Each country introducing non-medical prescribing had its own reason for doing so. The USA, Canada, Australia, New Zealand, Sweden, and the UK each had a specified a number of reasons for implementing the process – New Zealand and Sweden, to improve services for specific patient groups; and Australia and Canada, to address medical staff shortages in remote geographical areas. There is a clear link with the advanced practitioner role in the USA and Canada. What all had in common was the ability through non-medical prescribing to reduce delays in access to medication for patients and, certainly in the UK, to make better use of nurses' skills and competencies.[14] There are, however, overlaps in the benefits of non-medical prescribing, which include:

- Ease of access for patients requiring medication
- Enabling appropriately trained nurses to make the best use of their skills and competencies for some long-term conditions such as diabetes or asthma
- Legalised insulin dose adjustment
- Addressing shortfalls in medical staffing although it was not designed for this purpose.

- Pharmacokinetics
- Clinical history-taking and consultation methods
- Ethical issues relating to non-medical prescribing
- Drug interactions/adverse drug reactions
- Policies relating to antibiotic prescribing/vaccines
- Calculation skills
- Licensing of medicines literature
- Cultural and religious influences on prescribing
- Prescribing in pregnancy and for breast-feeding mothers
- Biochemistry
- Specific pharmacology for dermatology, gastroenterology, respiratory disorders and palliative care
- Record keeping
- Prescription writing and storage of pads
- Administrative arrangements for prescribing, including ordering of supplies, budgeting and costs

Box 2. Course topics

Patient perspective

There has been very little research into this in respect of supplementary prescribing. However, Luker *et al*,[15] studying the nurse-patient relationship in independent nurse prescribing, used a convenience sample of 148 people to elicit patients' views. They found that the majority of the patients questioned felt that nurses were in a better position to prescribe than general practitioners (GPs) as often they had a more in-depth knowledge of the patient's condition and circumstances – although the authors note that the people interviewed were high users of the service and, as such, the findings might not be applicable to other groups. Latter *et al*,[16] reviewing both this study and another by Brooks *et al*,[17] who interviewed 50 patients, also found that nurse prescribing by district nurses and health visitors was viewed extremely positively by patients. Latter *et al* acknowledged that design flaws in the research indicate the necessity for further study into the effectiveness of nurse-prescribing design. Those questioned did not express a preference in this respect as to whether they should be seen by a nurse or doctor, and felt that access to medicines was the major advantage of nurse prescribing.

Concerns

Since the introduction of nurse prescribing in the UK, common themes have emerged around non-medical prescribing. In the diabetes literature, there is little doubt that patients benefit from the process[18] however there are concerns that diabetes specialist nurses may feel forced to take on this additional responsibility. Wong *et al*,[19] reviewing prescribing for older people, debate whether all

diabetes specialist nurses need to be prescribers to provide effective patient care, and suggest that more training in traditional nursing skills, such as communication, may be more beneficial. They also pointed out that the additional skills and responsibility undertaken will not be reflected in pay, and express a real concern that medical staff may be de-skilled by the process. Despite these difficulties they still advocate non-medical prescribing as the way forward.

Name of Patient:		Patient medication sensitivities/allergies:	
Patient identification Patient Hospital Number/NHS Number or DOB			
Current medication:		Medical history:	
Independent Prescriber: Contact details: tel		Supplementary prescriber: Contact details: tel	
Condition(s) to be treated: Type 1 diabetes Hypercholesterolaemia		Aim of treatment: To optimise diabetes glycaemic control To educate and support patient in diabetes care To reduce total cholesterol level to recommended target range <5 mmols	
Medicines that may be prescribed by SP:			
Preparation	Indication	Dose Schedule	Specific indications for referral back to the IP
Insulin therapy and appropriate devices	As clinically indicated according to local guidelines	As indicated by: Clinical assessment and patient preference	Adverse drug reaction Failure to optimise glycaemic control and achievement of target range
Statins	As clinically indicated according to NICE guidelines (Type 1 diabetes clinical guideline 15 (2004) and risk score – UKPDS 56 Risk engine	As indicated in BNF	Adverse drug reaction Failure to achieve target total cholesterol level despite adequate titration of drug Abnormal LFTs Triglyceride level is >10 mmols/l
Guidelines or protocols supporting Clinical Management Plan: Local guidelines for the administration of insulin to people with diabetes Peterborough Hospital Formulary NICE guidelines for Type 1 Diabetes: diagnosis and management of type 1 diabetes in children, young people and adults Stevens *et al* The UKPDS Risk Engine Clinical Science 2001; **101:** 671–679 British National Formulary (These documents can be located in the policy file: diabetes nursing office ECH).			
Frequency of review and monitoring by:			
Independent prescriber As clinically indicated		Supplementary prescriber and independent prescriber As clinically indicated by supplementary prescriber Independent prescriber at 3 months or earlier at supplementary prescribers' request	
Process for reporting ADRs: Report to independent prescriber) and GP		Complete adverse reaction form (CSM)	
Shared record to be used by IP and SP: Nursing, medical notes, and letters to GP.			
Agreed by independent prescriber(s):	Date	Agreed by supplementary prescriber(s):	Date	Date agreed with patient/carer

Clinical Management Plan for type 1 diabetes and hypercholesterolaemia

The European perspective: Sweden

Sweden introduced nurse prescribing in 1994; it enabled all district nurses and, more recently, those working with older people to prescribe. Training requirements specified a 10-week course for specialist nurses and 20 weeks for non-specialist nurses. All nurses needed to be registered at national level. Supporting this is a specific nurses' formulary of around 230 medications for 60 medical conditions. As in the UK, there are no formal ongoing professional-development strategies in place.

There has been criticism following the introduction of non-medical prescribing in Sweden. Wilhelmsson and Foldevi[20] found through working with focus groups of GPs and district nurses that whilst in general the feeling was positive around nurse prescribing, there was a general lack of knowledge in GPs around prescribing training. District nurses felt that prescribing was a serious responsibility; some had experienced resistance to its implementation in their own area. However, the district nurses did feel that the process gave GPs more time to spend with patients with complex illnesses.

The Republic of Ireland, Northern Ireland, Wales and Scotland

In Northern Ireland, nurse prescribing has followed the path originally set by the UK. As yet, there have been three independent/supplementary prescribing courses; around 220 nurses have completed the course. Legislation and guidelines for training are in line with the UK. In the Republic of Ireland,

there has been some work in the area of pilot sites for prescribing.

In Wales, five approved educational institutions offer the extended and supplementary prescribing course. Nurses in Wales must undertake a drug calculation exam before being allowed to practice. In Scotland, seven approved educational institutions offer extended and supplementary prescribing; an evaluation of nurse prescribing is being undertaken by the University of Stirling. All four nations use prescribing competencies from the UK National Prescribing Centre (www.npc.co.uk) to measure student's abilities and prescribing outcomes.

Other disciplines

Already, pharmacists and podiatrists have joined nurses in undertaking training in non-medical prescribing. Both disciplines are able to prescribe through the supplementary process only after the successful completion of the course. Radiographers and physiotherapists are also able to enrol for these multidisciplinary courses.

New legislation in the UK

What does the future hold for non-medical prescribing in the UK? New legislation due to come into force by April 2006 will enable any extended formulary nurse prescriber to prescribe within their own scope of practice any licensed medicine for any medical condition, apart from controlled drugs.[21] However, with this breakthrough comes additional responsibility for nurses. This exciting development has, despite a lengthy consultation exercise, generated some concern among the medical fraternity. The British Medical Association has been vociferous in it response to this initiative, raising real concerns that patient safety will be compromised.[22] Pringle and Avery,[23] addressing these concerns believe that most non-medical prescribers will only prescribe within their own area of practice, but feel more needs to be done to ensure continuing professional development and robust clinical governance. It has been argued that medical training in prescribing has been extremely limited, focusing on specific drugs for specified conditions – rather that competency based training.[24]

Conclusion

Non-medical prescribing is in its infancy but has already impacted positively on patient care. While new legislation in the UK will give rise to an easier prescribing process, it will bring additional responsibilities and further accountability for those undergoing this role development. Despite this, and the present pay-related issues surrounding the introduction of new skills and responsibilities, the number of nurse prescribers is growing. The training required is comprehensive and robust and, with the advent of access to the entire formulary, likely to become even more intensive. Non-medical prescribing is here to stay and indeed is progressing. Medical staff, nursing staff and patients will need to develop true partnerships in care if this process is to succeed, learning from each other in order to provide safe effective care.

Nurses in diabetes care need to consider whether prescribing is for them. It is not for all: some will prefer to continue with the present system of patient-group directives or medical staff-only prescribing. The benefits for people with diabetes and diabetes healthcare professionals are clear, and the process will become much easier as guidelines, standards and support mechanisms are put into place. Those working in European countries where non-medical prescribing is not implemented will be able to learn from others that have already undertaken the journey. We look forward to supporting you as and when the legislation becomes available in your countries.

Conflict of interest:

None

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The diabetes marathon

A report from the 10th Annual Conference of the Federation of European Nurses in Diabetes (FEND) 9–10 September 2005, Athens, Greece

'For a person with diabetes, every day is like a marathon,' FEND Chairwoman, Anne-Marie Felton (UK) told a capacity audience of delegates. 'To be involved in a marathon requires training, commitment, endurance and the support of a professional team – and in this case, the professional team consists of dietitians, doctors, psychologists, scientists, laboratory people, and, of course, diabetes nurses.' Ms Felton stressed the need, in the context of diabetes, to maintain the pressure on European political leaders; and urged all delegates to sign FEND's *Athens Declaration* – to be submitted to the EU (see Box).

The European dimension

The opening address was given by Sotirios Raptis, Chairman of the local Organising Committee. Professor Raptis explained the systems implemented by the Hellenic National Diabetes Centre for the Research, Prevention and Treatment of Diabetes Mellitus and its Complications (HNDC) Network to create a national diabetes database, which now connects the 13 regional diabetes centres. The HNDC also conducts ongoing diabetes education programmes for healthcare professionals.

EU focus

John Bowis, MEP, FEND Advisory Board member and person with type 2 diabetes, pointed out that while communicable conditions, such as AIDS and tuberculosis quite rightly receive important media attention, non-communicable conditions such as diabetes have a lower global profile. He said that the task of the diabetes community is to alert the world to the potentially devastating threat of diabetes. Laying down a challenge to other politicians with