Advanced Neonatal Nurse Practitioners and drugs – a prescription for success?

This paper focuses on the role of the Advanced Neonatal Nurse Practitioner (ANNP) in prescribing drugs. A summary of the current situation is followed by a review of the pathways whereby nurses in the UK may legally prescribe and the value of these pathways to ANNPs. Current training programmes for non-medical prescribing staff are considered as well as how these relate to ANNPs. A conclusion discusses how problems may be resolved.

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Key points

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1. ANNPs have been limited by restrictions on prescribing.
2. Extensions to non-medical prescribing do not apply to neonatal care.
3. Current training in non-medical prescribing is not relevant and is both time-consuming and difficult.
4. ANNPs working in medical roles should have the same prescribing rights and responsibilities as doctors to whom they are equivalent.
5. All persons prescribing for neonates should have specific training in neonatal pharmacology.

Role and responsibilities

The history of ANNPs will be familiar to most readers. The role was first developed in the United States, primarily to deal with a shortage of doctors as neonatal care expanded in the 1970s[1]. In this country Wessex Regional Health Authority took a lead and a course was started at Southampton University in 1992[2]. Early courses were co-ordinated by the English National Board as the A19. Since the dissolution of the ENB in 2002, programmes in advanced neonatal nursing are available at a number of colleges at diploma/BSc/MSc level. Qualification does not receive a separate or specific entry in the NMC Register of Nurses.

Surveys have shown that ANNPs in different units perform different roles[3,4]. Many continue to perform conventional nursing duties and/or have teaching and managerial responsibilities. Others conform more to the model of practice developed in the US and work in recognisably medical ways, in effect as senior house officers (SHOs) or registrars.

Do ANNPs prescribe?

In a survey of prescribing by ANNPs, Redshaw and Harris[3] found that 64% of their respondents were prescribing. Smith and Hall gave the slightly lower figure of 50%[4]. Both surveys stated that prescribing was a real problem, as many units were unsure as to the legality of ANNP-prescribing. Professor David Field carried out a survey in 2003 on behalf of the British Association of Perinatal Medicine (BAPM). Replies to his queries were presented verbatim on the BAPM website www.bapm.org. Of the 50 or so units who responded, only two stated that their ANNPs were prescribing on any scale. Comments from some other units stated that either they had dispensed with ANNPs or had decided not to use them, in part because of concerns about prescribing.

For those ANNPs whose time in the clinical area is limited, prescribing may not represent a problem. Where ANNPs are working "as doctors", or desire to do so, prescribing clearly is a very important issue.

Those ANNPs who do prescribe appear to use different formats. Not very much has actually been published, however, and most of the author's information is via personal communication. Some units are trying to develop Patient Group Directives (see below) others have begun work on supplementary prescribing (see below). These will now be examined in more detail.

Non-medical prescribing

Over the last few years legislation has been passed in the UK and approval has been given to prescribing by nurses. To make use of these pathways, nurses undergo further instruction; responsible bodies have closely regulated the courses. Could these changes help ANNPs? Some neonatologists think so; for example Smith and Hall believe that "appropriately accredited educational prescribing courses" represent "the first step forward"[4]. Non-medical prescribing is possible in three forms – extended prescribing, patient group directives and supplementary prescribing – but how useful are these forms of prescribing in the neonatal unit?

Extended prescribing

Initially, district nurses and health visitors were permitted to prescribe a limited and specified range of medicinal products following suitable additional training. A list of these will be found in the BNF in the section Nurse Prescribers' Formulary for District Nurses and Health Visitors. The formulary is tied to the roles that they perform in the community and has no relevance to neonatal care.

A wider range of medicines was subsequently made available in an extended formulary to other appropriately trained nurses working independently. This – the 'Nurse Prescribers' Extended Formulary' within the BNF – includes about 150 drugs to be used for a narrow range of specified conditions. The conditions covered are those that might be encountered in a walk-in clinic, for example, insect bites. Both the drugs approved and the conditions for which they may be prescribed are reviewed regularly and changed accordingly. Generally, neither the conditions nor the drugs are encountered in neonatal care.

Patient group directives (PGDs)

Originally known as patient group protocols, the use of PGDs predates both supplementary prescribing and extended prescribing. The Crown Report[5] codified their appropriate usage and renamed them patient group directives. They were to be used in situations where an individual diagnosis and prescription were not required, particularly where groups of patients were being dealt with. A group prescription could then be developed for a named drug in a specific situation that would allow named nurses to supply or administer that drug to patients as the need arose, rather than seeking a separate individual prescription on each occasion. There is no requirement for nurses so named to undertake additional training.

Again an example might help explain what PGDs involve. Ophthalmic examination of premature babies to detect retinopathy is recognised as good practice and protocols have been agreed. A detailed examination of the eye requires the use of drops to dilate the pupil and these need to be given at a set time prior to examination. It can be difficult to find a prescriber as a number of examinations are often performed at one session. The drops could be given under a PGD. Incidentally in such circumstances the prescriber does not have to be an ANNP, but could equally and probably best be the nurse who assists at such procedures.

As the Department of Health (DH) noted in a recent document "the majority of clinical care should be delivered on an individual, patient-specific basis"[6]. The National Prescribing Centre has recently published guidelines on the use of PGDs and examples are given in their document[7]. A web site has been established to guide carers in PGD usage (www. groupprotocols.org.uk). This site may be used to access a bank of PGDs in current practice. There are no PGDs in the bank from neonatal units.

PGDs were not intended to resolve the problems that ANNPs currently face and so to adapt them to do so would appear contrary to their intended purpose. A particular point of concern must be that a nurse working under a PGD can only supply medication to a patient or administer it herself. Thus a drug so prescribed by an ANNP cannot be administered by another nurse or nurses.

Supplementary prescribing

Later the Department of Health came to appreciate the possible benefits of nurse prescribing to patients with chronic conditions. It was felt that nurses working under the supervision of a doctor could undertake increased management responsibilities in this area. These developments are to be understood against a background of better use of nurses and nursing skills in order to benefit patients and reduce medical workload[8]. In the context of supplementary prescribing, no restrictions were applied regarding which medicines could be used (with certain exceptions) nor were specific conditions delineated[9].

At first this appears to open up doors for ANNPs. Neither neonates nor neonatal conditions are excluded. Furthermore the range of drugs covers almost everything in the BNF. However, the intention of the change was quite clear and it was specifically stated that supplementary prescribing would not be useful in acute care. This was obvious from the details of the regulations.

A primary diagnosis has to be made by a doctor who then delegates care to a named nurse within the context of a specific clinical management plan. It is intended that the clinical management plan should cover just one condition and one or a narrow range of drugs. The plan must also have the written agreement of the patient.

Looking at an example can show what it actually means. A GP diagnoses a patient with hypertension and commences the patient on medication. In the past the patient would have returned to see the GP regularly and the doctor would have changed treatment as indicated by response to the drug(s) used. Under a supplementary prescribing relationship, the patient would return to see a practice nurse who would manage the patient within specific limits. For example, if the patient experienced serious side effects then the patient would have to be referred back to the GP. Such circumstances would have to be specified in the clinical management plan. Furthermore, should the patient have asthma this would either have to be managed directly by the GP or, if by a supplementary prescriber, then under the terms and cover of another clinical management plan. The specifications for supplementary prescribing should not be viewed as simply red tape – they make good sense in the context of general practice.

However, in the context of acute care, such as neonatal units, application of this mode of prescribing becomes very awkward, as an example will show. Currently an ANNP might attend the delivery of a preterm baby and decide to intubate the baby if signs of respiratory distress are evident. That would not be a problem, but the administration of surfactant would be. A doctor would first have to diagnose surfactant deficiency. Moreover, it could not be any doctor, but a senior named doctor who would then have to get the written agreement of the family to the ANNP prescribing surfactant and indeed generally managing the baby's respiratory problem. Furthermore, should it be felt that sepsis was a cause of the baby's breathing difficulty, then the prescription of antibiotics would require a separate clinical management plan, signed separately by the family.

There is a more fundamental problem. Even in small units ANNPs will work alongside varying numbers of doctors, looking after the same babies. ANNPs, however, would have to follow a much more complex process than the doctors to deliver the same treatment where any drugs are involved. The administration of drugs would be complicated by the need to

additionally check prescriptions against the terms of clinical management plans – this would affect other nurses and hospital pharmacists. Parents could find their consent being sought to treatment plans several times a week if an ANNP is allocated to their baby. One day (the "ANNP day") they may need to consent to a course of antibiotics, another day (the "doctor day") they would not.

In summary, none of the current pathways for non-medical prescribing can really be operationalised in the neonatal unit. Additional concerns apply to the courses preparing nurses for prescribing roles, both in respect of what they do cover and what they do not cover.

Prescribing courses

The Department of Health remains insistent that all nurses who wish to prescribe must complete an accredited course. The V100 was set up for district nurses and health visitors, although subsequently incorporated in basic training for these roles. The V200 was established to train nurses who wished to use the Nurses' Extended Formulary. Following the decision to establish supplementary prescribing under the 2003 Medicines Act, the V300 was introduced. The V200 and V300 are now combined in a programme that runs from 4 to 6 months depending on the educational site. Following successful completion of the course, a separate entry is made on the Register, for which a charge is made.

The content of the course has been determined by respective professional and government bodies (the NMC, the Department of Health and the Royal College of Pharmacists) and reflects the areas in which non-medical prescribing is expected to take place. There is particular emphasis on the elderly; most of the teachers have backgrounds in community care; most of the students come from community settings. To pass these courses – and assessment is rigorous – involves considerable study-time in a stream of health care that is a world away from the NNU.

From the beginning and throughout it is emphasised that prescribing must only take place within the limits set out by the Department of Health; to prescribe outside these would be to risk disciplinary action by the NMC or indeed criminal prosecution[10]. It is also stressed that nurses who administered illegally prescribed drugs were also at such risk. The ANNP undertaking such courses will be left with real worries about their immunity should they prescribe outside the current framework.

Prescribing for neonates

A problem with prescribing courses for ANNPs is not just what they do teach, but what they do not teach. The conditions encountered by the ANNP are either unique to neonates or significantly altered in this patient group. Most drugs used in the neonatal unit are either off-label or unlicensed. Research in neonates is limited by ethical, practical and commercial considerations. Neonatal pharmaco-dynamics and pharmacokinetics are highly specialised subjects. Clinicians prescribing in the neonatal unit do need appropriate and specific preparation for their role. Current training for non-medical prescribing cannot meet this need.

Conclusion – the way forward?

The Department of Health is in the process of considering further change. In March 2005 the Department with the MHRA (Medicines and Healthcare Products Regulatory Agency) published a consultation document outlining five options for the future of nurse prescribing[12]. Option E proposed that specialist nurses be empowered to prescribe freely in their area of expertise, working as independent prescribers, making diagnoses and acting on these. This would be a considerable advance, as it would mean that ANNPs could operate outside a clinical management plan. Specialist nurses would still have to undergo further training, including courses in addition to the V300.

In other forums the Department of Health has shown a very positive attitude towards ANNPs. The NHS Modernisation Agency is one of a number of bodies outlining possibilities for strategic change throughout the healthcare system. In December 2004 they published guidelines for role redesign in neonatal services. The role of the ANNP was highlighted. Repeated reference was made to the replacement of SHOs by ANNPs, and the incorporation of ANNPs onto the SHO rota. It is stated explicitly "ANNPs are capable of managing and running the neonatal intensive care unit"[6] (p 16). If this is so, should it not be possible to allow ANNPs working at SHO or registrar level to prescribe medications on the neonatal unit in the same way as those grades?

We should also be concerned to improve pharmaceutical services to neonates. This problem is being addressed through the European Union following initiatives in the United States[11]. Currently interest is more in the development of safe drugs for babies, rather than in training for clinicians. Training programmes for ANNPs should include a significant and specific pharmacology component. Permanent attachment to a neonatal unit offers the possibility to develop safer, more effective and efficacious drug therapy for babies. ANNP-prescribing could be much more than doing what the doctor ordered.

Addendum

A press statement by Patricia Hewitt, Secretary of State, on 10th November 2005, promised substantial changes to the scope of practice of the extended nurse prescriber. It was implied that most current restrictions would be removed. She promised legislation in the spring of 2006. It is too early to say definitely what this may entail, but it looks promising.

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