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M Raven

Nurse practitioner and midwife prescribing in Australia

There is an increasing trend worldwide for nurses and other non-medical healthcare professionals to be accorded the right to prescribe drugs. In Australia, nurse practitioners and eligible midwives have gained prescribing privileges in recent years. This *RESEARCH ROUNDup* examines their prescribing patterns and the evidence about the effectiveness and safety of nurse and midwife prescribing.

In a nutshell

- ⇒ Nurse practitioners (NPs) and eligible midwives in Australia (except NT) are able to prescribe drugs.
- ⇒ Most but not all NPs do prescribe.
- ⇒ Anti-infectives, analgesics, and psychotropics were the medications most commonly prescribed by NPs in 2010.
- ⇒ Prescribing was most common in paediatric/neonatal care, emergency care, primary care/general practice, and sexual health/women's health.
- ⇒ Nurse prescribing increases patient access to medicines and is generally acceptable to patients.
- ⇒ There is increasing evidence of the appropriateness and safety of nurse prescribing.

In recent years, nurse practitioners (NPs) and eligible midwives have been granted prescribing privileges throughout Australia (apart from the Northern Territory, where legislation has been assented but not enacted). Some other non-medical health professionals, including pharmacists and podiatrists, are also authorised to prescribe certain drugs.

NPs are registered nurses who have been endorsed by the Nursing and Midwifery Board of Australia (NMBA) to function autonomously and collaboratively in an advanced and extended clinical role, on the basis of advanced practice nursing experience and approved educational qualifications at master's level or equivalent. All Australian NPs have the right to prescribe Schedule 2, 3, 4, and 8 medicines, along with the right to initiate diagnostic investigations and refer patients to other health professionals.¹

Schedule 2: pharmacy medicines, eg. aspirin/paracetamol/ibuprofen (packs >24 tablets); non-sedating antihistamines

Schedule 3: pharmacist only medicines, eg. pseudoephedrine

Schedule 4: prescription only medicines, eg. statins, antidepressants

Schedule 8: controlled drugs, eg. methadone, amphetamines

In September 2012, there were 765 NPs nationally. There were also 777 registered nurses authorised to supply scheduled medicines (rural and isolated practice); most of these (651) were in Queensland.²

Eligible midwives are authorised to "prescribe and/or supply Board approved Schedule 2, 3, 4 and 8 medicines for the management of women and their infants in the prenatal, intrapartum and post-natal stages of pregnancy and birth".³ In September 2012, there was only one midwife in Australia

endorsed to prescribe. However, there were 121 midwives who would qualify for endorsement as eligible midwives on completion of an NMBA-endorsed course on prescribing.⁴

Prescribing patterns

A 2010 survey of 209 members of the Australian College of Nurse Practitioners (ACNP) found that most reported prescribing (78% in 2010, up from 72% in 2007).^{5,6} These NPs (80% female) comprised 83% of members. Most had many years of nursing experience (56% had been registered for 21+ years) and 70% had a master's degree. They primarily worked in adult emergency care (32%), chronic disease management (15%), acute non-emergency care (14%) and primary care/general practice (PC/GP) (10%).

Prescribing was markedly more common among NPs in some specialty areas: paediatric/neonatal care (100%), emergency care (98.5%), PC/GP (75%), sexual health/women's health (71%). It was much less common in aged care (38%) and palliative care (33%).⁵ Of those who prescribed, 78% reported doing so at least once a day.⁵ Prescribing did not dominate their practice: approximately 70% reported that 50% or less of their usual practice involved prescribing.⁶ The most frequently prescribed types of medications in 2010 were: anti-infectives, analgesics, psychotropics, and cardiovascular medicines. Anti-infectives and analgesics dominated in emergency care.⁵

Overall, NPs' confidence in relation to prescribing within their specialty was relatively high, ranging from 98% confidence in client education, through 80% confidence in adding new medications, to 41% confidence in recommending alternative medications (the only medication-related role with less than 50% confidence).⁶

Safety, effectiveness and cost-effectiveness

There is increasing evidence that nurse prescribing "can increase efficacy, maximize resources, and improve patient access to healthcare services and medicines"⁷ (p. 150). However, there are substantial gaps in the evidence base.⁸

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Web: www.phcris.org.au
PHC RIS Assist: 1800 025 882
Email: phcris@flinders.edu.au



Patient acceptability has the strongest evidence, with numerous studies reporting high levels of patient satisfaction.^{8,9}

A 2005 evaluation of nurse prescribing in England found that nurses were using a range of assessment and diagnostic skills and competencies necessary to underpin safe and effective prescribing.¹⁰ However, there was a need for more frequent inquiry about use of over-the-counter medications and about allergies to medicines.

In a randomised controlled trial in the UK, practice nurses and general practitioners wrote prescriptions for a similar proportion of patients, who had been randomly assigned to treatment provider.¹¹

In the US, a study of advanced practice nurses (APNs) working in primary care found that the patient's condition stabilised or improved in 76% of cases.¹² Furthermore, participating physicians unanimously rated APN prescribing as beneficial to patients. However, there was no comparison group.

It is useful to note that in both the UK and US studies, the participants were *nurse prescribers*, and not necessarily *nurse practitioners* with the additional educational and regulatory requirements that are in place for Australian nurse practitioners.

How does Australia compare with other countries?

In Australia, only NPs and eligible midwives have prescribing rights. Internationally, nurse prescribing extends well beyond these boundaries and is becoming increasingly more common. In 2010, seven Western European and Anglo-Saxon countries had introduced nurse prescribing,¹³ beginning with the US in the 1960s, followed by Canada, Sweden and the UK in the 1990s, Australia in 2000, New Zealand in 2001, and Ireland in 2007. It was expected to be introduced in the near future in the Netherlands and Spain.

Nurse prescribing is prominent in the UK, where nurses have the most extensive prescription privileges among Western European and Anglo-Saxon countries.¹³ Prescribing is less common among Australian NPs than their US counterparts, both in terms of the proportion who prescribe and the frequency with which they do so.⁷ NP prescribing is not well established in New Zealand; in 2007, there were only 26 NPs with prescribing rights.¹⁴

Training

Training and accreditation requirements vary in other countries.^{13,14} In Australia, prescribing is a core component of all NP training courses, which must be endorsed by the NMBA.

In the 2010 survey of ANCP members,⁶ 70% had completed a master's degree, significantly less than their US counterparts (99%). However, as of April 2011, a master's level qualification or NMBA-approved equivalent is required.¹⁵ The first Australian course to address this requirement and accredit midwives to prescribe to women and infants in their care has recently commenced.¹⁶

Debates about nurse prescribing

Not surprisingly, there has been some resistance to non-medical prescribing, particularly nurse prescribing, primarily on the part of the medical profession. In the UK in 2002 Richard Horton, Editor of *The Lancet*, declared that nurse prescribing in the UK was "right but also

wrong".¹⁷ He was in favour of nurse prescribing, which was then being expanded in scope, but he believed the changes being advocated were too rapid and lacked adequate precautions. Overall, there is widespread and increasing acceptance of the legitimacy and value of nurse prescribing.^{7,8,13}

Further information

- ⇒ National Prescribing Service (2012) Competencies required to prescribe medicines.
Web: www.nps.org.au/health_professionals/prescribing_competencies_framework
- ⇒ Nursing and Midwifery Board of Australia
Web: www.nursingmidwiferyboard.gov.au
- ⇒ Australian Health Practitioner Regulatory Agency (AHPRA)
Web: www.ahpra.gov.au

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