## Editorial

## The rise and rise of non-medical prescribing

A Niroshan Siriwardena MMedSci PhD FRCGP

Editor, *Quality in Primary Care* and Visiting Professor of Primary Care, School of Health and Social Care, University of Lincoln, Lincoln, UK

The reaction from some quarters of the medical profession to the extension of prescribing rights to extended formulary nurse prescribers and pharmacists encompassing the whole *British National Formulary* is likely to be seen by many as a visceral response to the inherent threat to powerful vested interests in what has been described as the professional monolith of medicine.<sup>1–3</sup> Although individual nurses and pharmacists and their professional bodies may welcome this move as a just reward for long and hard-fought battles to be recognised as equal partners with the medical profession,<sup>4</sup> the implications of such a profound policy change need to be examined in the cold light of the available evidence, expected positive benefits and potential negative consequences.

Despite non-medical prescribing being considered an innovation, nurses or pharmacists have been successfully prescribing dressings, antibiotics, contraceptives and a variety of other drugs with prior assessment under patient group directions (PGDs), or 'by proxy' under supervision of doctors, or independently in a variety of both hospital and community settings for some time with growing confidence.<sup>5-7</sup> Nurse and pharmacist disease management clinics have been shown to improve patient compliance and outcomes.<sup>8,9</sup> Other professionals such as midwives, paramedics, podiatrists, optometrists and occupation health nurses also diagnose and prescribe drugs by virtue of specific prescription-only medicines (POMs) exemptions under which they operate.<sup>10</sup> More recently, nurses and paramedics trained as community and emergency care practitioners prescribe from a range of primary care drugs, such as antibiotics and analgesics, under PGDs, often providing the point of first contact for patients out of hours. There are even arguments for extending such prescribing further to address obvious anomalies, for example nurses working as emergency care practitioners are unable to administer opiates to patients with myocardial infarction.

Will patients and professionals support the change? In interview studies patients and medical practitioners appear to positively accept nurse prescribing, although experience in practice may contradict this, and the extent of ignorance of the change amongst the public is not known.<sup>11–16</sup> There are strong proponents within the nursing and pharmacy professions, but also a recognition that independent prescribing will increase complexity, risk and litigation, sometimes with little reward.<sup>17</sup> Despite this, patients would be reassured by Department of Health assertion of adequate training, effectiveness, cost-effectiveness, and safety demonstrated in practice.

Is there evidence for non-medical prescribing and does it stand up to scrutiny? Notwithstanding some evidence of adequacy of support and training there are also indications of important gaps.<sup>18</sup> There is early and limited evidence that prescribing patterns of nurse practitioners are similar to those of general practitioners in certain therapeutic areas, and that prescribing is effective and appropriate as judged by experts.<sup>19-21</sup> Although lack of experience in assessment and diagnosis, particularly of complex or multiple medical conditions is cited as a major drawback of non-medical prescribing, it is difficult to see why experienced non-medical clinicians cannot learn these skills, provided there is adequate education, assessment of competence and continuing supervision and support in both prescribing and diagnosis. Graeme-Smith suggested that 'prudent independent prescribing of drugs with a low benefit to risk ratio requires a thorough background in medical sciences, e.g. physiology, biochemistry, molecular biology and pathology, as well as basic and clinical pharmacology.<sup>17</sup> Rigorous, valid and reliable evidence of competence, arguably in these subjects as well as in diagnosis and therapeutics for specific clinical areas, should be welcomed by non-medical prescribers, patients and also employers who will have responsibility for ensuring that staff have the 'skills and competencies relevant to the clinical area in which they will be prescribing'.<sup>2</sup> Because assessment in one area of competence correlates poorly with that in other areas, so-called case specificity, assessment needs to cover all relevant areas of practice for individual practitioners. Employers, including general practices, may have a degree of liability for non-negligent harm, or negligent harm if competence is not confirmed. It is also disappointing that supervision is often provided through the

goodwill of doctors, with little or no remuneration, inadequate support and little recognition for this key role.

Illich, in coining the term 'iatrogenesis', literally 'physician-induced', recognised the potential negative impact of medicine, and in particular of drugs prescribed by doctors.<sup>22</sup> A corresponding term yet to be coined for nurses or pharmacists will predictably be short in coming if the fears of some commentators are realised. There is a lack of data on safety of prescribing and the rate of occurrence of diagnostic and treatment errors among non-medical prescribers, whereas prescribing rates of potentially hazardous or contraindicated drug combinations for general practice prescribing have been investigated and found to be rare.<sup>23</sup>

The difficulty is that the potential harms, in parallel with medical prescribing, are ubiquitous, and include errors from misdiagnosis, interactions with prescribed and non-prescribed medications or foods, inadvertent or inappropriate prescribing and influence from pharmaceutical companies.<sup>24–26</sup> Systems for monitoring nurse prescribing and reporting errors are yet to be developed to the extent that routine information is widely available. In the current climate there may be reluctance to report errors or perverse disincentives to reporting, whether by doctors or other professionals, since reporting will inevitably involve costs, financial or time, hostility, suspension or sickness absence of employed staff, loss of morale, and disruption to working relationships.

The classic prerequisites for diffusion of extended prescribing are in place.<sup>27</sup> Can the quality of prescribing in primary care be maintained and negative consequences prevented or contained? The answer should be a qualified yes; but clear evidence of competence in diagnosis and treatment and robust systems of prescription monitoring, patient safety and clinical governance are needed to reassure patients, professionals and employers to positively support our colleagues and successfully implement non-medical prescribing.

## REFERENCES

- 1 Keighley B. Should nurses prescribe? *British Journal of General Practice* 2006;56:68.
- 2 Department of Health. Nurse and Pharmacist Prescribing Powers Extended (press release 10 Nov 2005). www. dh.gov.uk/PublicationsAndStatistics/PressReleases/Press ReleasesNotices/fs/en?CONTENT\_ID=4122999&chk= Mjc1MS
- 3 McCartney W, Tyrer S, Brazier M and Prayle D. Nurse prescribing: radicalism or tokenism? *Journal of Advanced Nursing* 1999;29:348–54.
- 4 Young G. The nursing profession's coming of age. British Medical Journal 2005;331:1415.
- 5 Johnson ZK, Griffiths PG and Birch MK. Nurse prescribing in glaucoma. *Eye* 2003;17:47–52.

- 6 Kashner TM, Rush AJ, Suris A *et al.* Impact of structured clinical interviews on physicians' practices in community mental health settings. *Psychiatric Services* 2003; 54:712–18.
- 7 Rosen R and Mountford L. Developing and supporting extended nursing roles: the challenges of NHS walk-in centres. *Journal of Advanced Nursing* 2002;39:241–8.
- 8 Petrilla AA, Benner JS, Battleman DS, Tierce JC and Hazard EH. Evidence-based interventions to improve patient compliance with antihypertensive and lipidlowering medications. *International Journal of Clinical Practice* 2005;59:1441–51.
- 9 Campbell NC. Secondary prevention clinics: improving quality of life and outcome. *Heart* 2004;90(suppl 4): iv29–iv32.
- 10 NHS Modernisation Agency. Medicines Matters. A guide to current mechanisms for the prescribing, supply and administration of medicines. London: NHS Modernisation Agency and Department of Health, 2005.
- 11 Berry D, Courtenay M and Bersellini E. Attitudes towards, and information needs in relation to, supplementary nurse prescribing in the UK: an empirical study. *Journal of Clinical Nursing* 2006;15:22–8.
- 12 Allen J and Fabri AM. An evaluation of a community aged care nurse practitioner service. <u>Journal of Clinical</u> Nursing 2005;14:1202–9.
- 13 Brooks N, Otway C, Rashid C, Kilty L and Maggs C. Nurse prescribing: what do patients think? *Nursing Standard* 2001;15:33–8.
- 14 Brooks N, Otway C, Rashid C, Kilty E, Maggs C. The patient's view: the benefits and limitations of nurse prescribing. *British Journal of Community Nursing* 2001;6:342–8.
- 15 Carr J, Bethea J and Hancock B. The attitudes of GPs towards the nurse-practitioner role. *British Journal of Community Nursing* 2001;6:444–81.
- 16 Fisher R. Relationships in nurse prescribing in district nursing practice in England: a preliminary investigation. International Journal of Nursing Practice 2005;11:102–7.
- 17 Graeme-Smith DG. The demedicalization of prescribing. *International Journal of Pharmaceutical Medicine* 2002;16:233–38.
- 18 Latter S, Rycroft-Malone J, Yerrell P and Shaw D. Nurses' educational reparation for a medication education role: findings from a national survey. <u>Nurse</u> Education Today 2001;21:143–54.
- 19 Venning P, Durie A, Roland M, Roberts C and Leese B. Randomised controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care. *British Medical Journal* 2000;320:1048–53.
- 20 Latter S and Courtenay M. Effectiveness of nurse prescribing: a review of the literature. *Journal of Clinical Nursing* 2004;13:26–32.
- 21 Latter S, Myall M, Maben J et al. An Evaluation of Extended Formulary Independent Nurse Prescribing. Southampton: University of Southampton, Department of Health, 2005. www.dh.gov.uk/assetRoot/04/11/40/ 86/04114086.pdf (accessed 19 January 2006).
- 22 Illich I. Medical Nemesis. Harmondsworth: Penguin, 1977.
- 23 Chen YF, Avery AJ, Neil KE *et al.* Incidence and possible causes of prescribing potentially hazardous/contraindicated

drug combinations in general practice. <u>Drug Safety</u> 2005;28:67–80.

- 24 Roumie CL, Halasa NB, Edwards KM *et al.* Differences in antibiotic prescribing among physicians, residents, and nonphysician clinicians. *American Journal of Medicine* 2005;118:641–8.
- 25 Monaghan MS, Galt KA, Turner PD *et al.* Student understanding of the relationship between the health professions and the pharmaceutical industry. *Teaching and Learning in Medicine* 2003;15:14–20.
- 26 Muijrers PE, Grol RP, Sijbrandij J, Janknegt R and Knottnerus JA. Differences in prescribing between GPs: impact of the cooperation with pharmacists and

impact of visits from pharmaceutical industry representatives. *Family Practice* 2005;22:624–30.

3

27 Rogers EM. *Diffusion of Innovations*. New York: Free Press of Glencoe, 1962.

## ADDRESS FOR CORRESPONDENCE

A Niroshan Siriwardena, Visiting Professor of Primary Care, School of Health and Social Care, University of Lincoln, Lincoln LN6 7BG, UK. Tel: +44 (0)1522 886939; fax: +44 (0)1522 83705; email: nsiriwardena@lincoln.ac.uk