

This is a repository copy of Non-medical prescribing in the United Kingdom: developments and stakeholder interests .

White Rose Research Online URL for this paper: http://eprints.whiterose.ac.uk/10220/

Article:

Cooper, R.J., Anderson, C., Avery, T. et al. (7 more authors) (2008) Non-medical prescribing in the United Kingdom: developments and stakeholder interests. Journal of Ambulatory Care Management, 31 (3). pp. 244-252. ISSN 0148-9917

https://doi.org/10.1097/01.JAC.0000324670.91153.b4

Reuse

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



Nonmedical Prescribing in the United Kingdom

Developments and Stakeholder Interests

Richard Cooper, PhD; Louise Guillaume, PhD; Tony Avery, DM; Claire Anderson, PhD; Paul Bissell, PhD; Allen Hutchinson, MBBS; Joanne Lymn, PhD; Elizabeth Murphy, PhD; Paul Ward, PhD; Julie Ratcliffe, PhD

Abstract: This article reflects upon the introduction of nonmedical prescribing in the United Kingdom and describes the historical developments within the National Health Service over the last 2 decades, together with an assessment of the impact of this prescribing for various stakeholders, drawing upon relevant research. We argue that a number of issues are associated with the introduction and development of nonmedical prescribing, including benefits to patients, the promise of increased autonomy for professions such as nursing and pharmacy, explicit and implicit government objectives, and threats to medical dominance and autonomy. **Key words:** *Non-medical prescribing*, *nursing*, *pharmacy*, *United Kingdom*

THIS ARTICLE reflects upon the introduction of nonmedical prescribing (NMP) in the United Kingdom and describes the historical developments within the National Health Service (NHS) over the last 2 decades, together with an assessment of the impact of this prescribing for various stakeholders, drawing upon relevant research. We argue that a number of issues are associated with the introduction and development of NMP, including benefits to patients, the promise of increased autonomy for professions such as nursing and pharmacy, explicit and implicit government objectives, and threats to med-

ical dominance and autonomy. From these various and potentially conflicting interests—from something "as simple as giving prescribing rights" (Jones, 1999, p. 5) to a "dangerous, uncontrolled experiment" (Horton, 2003, p. 1876)—an attempt is made to consider how successful NMP in the United Kingdom has been and how it may evolve in the coming years.

THE HISTORY OF NMP IN THE UNITED KINGDOM

To understand the significance of NMP, a relevant starting point is the statutory control of medicines in the United Kingdom, which has undergone a number of changes in recent years. Medicines in the United Kingdom have been increasingly regulated since the end of the 1800s, culminating in the Medicines Act (1968), which consolidated much previous legislation and defined medicines in terms of prescription-only medicines (POMs), pharmacy-only (P) medicines, and general sales-listed (GSL) medicines. POMs could be prescribed only by authorized practitioners—qualified doctors and dentists—using either

From the Division of Social Research in Medicines and Health, School of Pharmacy (Drs Cooper and Anderson), the School of Community Health Sciences (Dr Avery), and the School of Nursing (Dr Lymn), University of Nottingbam; and School of Health and Related Research, University of Sheffield (Drs Guillaume, Bissell, Hutchinson, and Ratcliffe), United Kingdom; and Flinders University, Adelaide, Australia (Dr Ward).

Corresponding author: Richard Cooper, PhD, Division of Social Research in Medicines and Health, School of Pharmacy, University of Nottingham, University Park, Nottingham, NG7 2RD, United Kingdom.

private prescriptions or, more commonly after 1948, NHS prescriptions. This situation effectively made the medical profession gatekeepers for medicines, and this was certainly the case for those medicines considered more likely to cause harm or abuse such as controlled drugs such as morphine. Although pharmacists retained a counter-prescribing role selling P and GSL medicines, since the 1980s, there has been a trend toward increasing deregulation of POMs (Blenkinsopp & Bradley, 1996) to P or GSL status in pharmacies and general retail outlets. These developments represented the first indication that medical control of medicines might be challenged (Britten, 2001) and were joined by a potentially more far-reaching proposal to extend prescribing rights to nonmedical professionals.

This arose in the form of the Cumberlege report (Department of Health and Social Security, 1986), which concluded that district nurses and healthcare visitors involved in neighborhood nursing should be allowed limited prescribing rights. This led to an advisory group being convened to consider nurse prescribing, which concluded in the Crown report (Department of Health [DoH], 1989) that there were inefficient practices in primary care that nurse prescribing could rectify. In particular, it was noted that: "a doctor often rubber-stamps a prescribing decision taken by a nurse [...] which is demeaning to both nurses and doctors [...and] action is now needed to align prescribing power with professional responsibility" (DoH, 1989, p. 12). By 1994, a national nurse prescribers' formulary for district nurses and healthcare visitors had been established and prescribing without a doctor was undertaken in several pilot sites following legislation. Appliances such as dressings, catheters, stoma products, and some medicines were included in the formulary (Nurse Prescribers' Formulary [NPF], 1994) (Table 1), and from 1998, all suitably trained district nurses and healthcare visitors could prescribe from the NPF.

A second Crown report (DoH, 1999) set out more far-reaching proposals for the prescribing and supply of medicines in the United Kingdom, including not only nurses but also pharmacists as potential prescribers, and proposals included a dependent, supplementary form of prescribing. This was introduced in

Table 1. Historical development of nonmedical prescribing in the United Kingdom

1992	Primary legislation for independent nurse prescribing enacted (Medicinal Products: Prescription by Nurses etc Act 1992) for district nurses (DNs) and healthcare visitors (HVs)
1994	First prescribing pilots by nurses and introduction of Nurse Prescribers' Formulary (NPF)
1998	National independent nurse prescribing possible for DNs and HVs (with V100 training) from revised NPF
2001	All nurses (with V100 qualification) able to prescribe from NPF
2002	Prescribing from Nurse Prescribers' Extended Formulary possible for V200 trained nurses, including more prescription-only medicines
April 2003	Legislation enabling suitably trained nurses and pharmacists to practice as supplementary prescribers (Health and Social Care Act, 2001) introduced
April 2005	Regulatory changes allowed nurse and pharmacist supplementary prescribers to prescribe all controlled drugs except Sch.1 (The Misuse of Drugs (Amendment) (No. 2) Regulations 2005) and unlicensed medicines
May 2005	Suitably trained physiotherapists, chiropodists/podiatrists, radiographers, and optometrists able to practice as supplementary prescribers
May 2006	Legislation enabling nurse independent prescribing (formerly extended formulary nurse prescribing) and independent prescribing for pharmacists introduced

2003 following legislation, allowing suitably trained nurses and pharmacists to prescribe all medicines except controlled and unlicensed drugs in accordance with a clinical management plan (CMP) produced after an initial doctor's diagnosis and with the agreement of the doctor, the supplementary prescriber, and the patient. Controlled drugs were also prescribable by nurses and pharmacists using supplementary prescribing from 2005.

In 2005, allied healthcare professionals such as physiotherapists, radiographers, podiatrists, and optometrists were also able to become supplementary prescribers (DoH, 2005), reflecting the rapid development of NMP in the United Kingdom, which could be contrasted with the more gradual introduction of prescribing rights in the United States, for example, for nurses (Armstrong et al., 1995) and pharmacists (Emmerton et al., 2005). The most recent development in NMP involved legislation permitting trained nurses and pharmacists to independently prescribe almost all medicines within their clinical competence (DoH, 2006). This represented the first independent prescribing opportunity for pharmacists and consolidated the position of nurse prescribers, who were then able to access almost the full formulary of medicines, as per doctors. Some controlled drugs remain excluded from independent NMP, although at the time of writing (September 2007), this is currently under review.

IN WHOSE INTERESTS? IMPLICATIONS OF NMP FOR UK STAKEHOLDERS

This historical summary overlooks how key stakeholders have both sought to influence and also been influenced by such changes to prescribing in the United Kingdom. These stakeholder groups, including the nursing, pharmacy, and medical professions and their members, patients, and also the UK government, are now considered and references to research are also made, highlighting current knowledge about NMP in the United Kingdom.

The nursing profession

Nurses were the first nonmedical professionals to gain prescribing rights, and a number of reasons may be advanced as to why this occurred. This description of the development of NMP hinted at several reasons for nurses acquiring prescribing privileges: first, allowing nurses to prescribe addressed the unsatisfactory and inefficient system whereby nurses had to ask doctors to write prescriptions for conditions that were already effectively under their management, such as wound care and incontinence; second, NMP offered a better deployment of the nurses' skills and afforded them greater professional autonomy, challenging their traditionally subordinate position within the division of labor in healthcare (Turner, 1995). However, at the same time, the nursing profession had become an increasingly vocal (and indeed powerful) profession and its effective political lobbying may also have played a part in nurses being afforded prescribing privileges (Sims & Gardiner, 1999) before pharmacists. That nurses became prescribers before pharmacists may also be explained by the nature of the respective professions and their members as well-most nurses are NHS employed, whereas the majority of UK pharmacists still work in the community (or retail) sector as pharmacy owners or increasingly as locums or employees and have been perceived to be commercially motivated "shopkeepers" (Eaton & Webb, 1979; Hughes & McCann, 2003). Perceptions of these motivations may not have been conducive to pharmacists obtaining prescribing status. In addition, nurses have also enjoyed a much closer proximity to patients (Malone, 2003) and doctors than pharmacists, which also made prescribing a more viable proposition in terms of understanding the background and needs of the patient and securing medical prescribers' necessary trust and confidence in nurses' abilities.

There are now almost 42,000 nurses with a prescribing qualification in the United Kingdom (around 6% of all UK registered nurses), of whom nearly 13,000 are able to prescribe from the full formulary using independent

or supplementary prescribing (Nursing and Midwifery Council, 2007). Furthermore, research suggests that nurses appear to have welcomed their prescribing roles (Luker et al., 1997; Rodden 2001) and early frustrations about prescribing from a limited formulary were identified but allayed by the subsequent legislative changes to full formulary prescribing. Despite the benefits of increased professional autonomy, there is evidence, however, that nurses have been cautious in undertaking prescribing and may even be reluctant to do so once qualified (Bradley et al., 2007; Hall et al., 2006). Linked to the benefit of increased professional autonomy is the prospect that NMP will enhance perceptions of nurses through gaining new skills and knowledge. An opposing concern, however, is that NMP focuses upon nursing qua medicine rather than nursing qua nursing (Fawcett, 2007) with a resultant overemphasis upon a biomedical model of curing rather than what has been described in the past as the traditional value of holistic caring, embodied in nursing practice (Baummann et al., 1998). Furthermore, despite acquiring new skills and knowledge through the accredited training nurses have to undertake before prescribing, there have been concerns that nurses' pharmacologic knowledge remains inadequate for prescribing responsibilities (Leathard, 2001; Offredy et al., 2007; Sodah et al., 2002), a concern not considered problematic (Fawcett, 2007) for the second NMP stakeholders to be considered as prescribers: pharmacists.

The pharmacy profession

In contrast to nursing, pharmacist prescribing in the United Kingdom was a later development that arose from the recommendations of the second Crown report into the prescribing and supply of medicines (DoH, 1999) although earlier reports (Nuffield Report, 1986) had highlighted the need for pharmacists to take on new roles. From a professional perspective, there was concern about deskilling and dissatisfaction with current roles, particularly in the community or "retail" sector (Bissell et al., in press). From a policy perspec-

tive, the government recognized that pharmacists represented an underutilized healthcare group in the United Kingdom (DoH, 2005). Prescribing, it seemed, might address both these issues. Despite having enjoyed some increased control over medicines because of deregulation of POMs (Britten, 2001), the promise of NMP provided a welcome opportunity for a profession that has been considered restricted by occupational limitation (Turner, 1995) and isolation (Cooper, 2007) to not only to increase their professional autonomy but also to develop, in the community setting, closer links with the primary care team. Like nurses, pharmacists appear to have welcomed their prescribing role according to the published literature (George et al., 2006; Weiss et al., 2006), and although this is presently limited mainly to supplementary prescribing (almost 1300 pharmacists are now qualified to undertake supplementary prescribing but only 153 independent prescribing; Royal Pharmaceutical Society of Great Britain, oral communication, 2007), many expect and want to become independent prescribers (Lloyd & Hughes, 2007; Warchal et al., 2006).

Perhaps, a key difference between nurse and pharmacist prescribing, however, is that claims about inadequate pharmacologic knowledge have not been leveled at the pharmacy profession in contrast to the nursing profession (Avery & James, 2007; Horton, 2003). NMP has not been without problems on a practical level, however; both pharmacists and nurses have identified problems with the implementation of their prescribing, and, as regard to supplementary prescribing, have criticized the inflexible, time-consuming nature of CMPs, delays in practicing, problems accessing patients' records, and a lack of support at various levels (employers, peers, doctors, financial, and information technology) (Cooper et al., 2008).

The medical profession

NMP potentially offers doctors a number of benefits and it has been anticipated that it will reduce doctors' workloads and result in "freeing up their time to concentrate on patients with more complicated conditions and more complex treatments" (DoH, 2005, ¶10). It might also be argued that such benefits would also strengthen doctor's professional dominance through increasing the indeterminacy of their work in such complex cases in contrast to the increasingly regulated, technical, and routinized nature of prescribing (that is informed by evidencebased medicine and guidelines from bodies such as the National Institute of Health and Clinical Excellence). This would increase what has been referred to as the indeterminacy/technicality (I/T) ratio of doctors' work and help to further distance doctors from patients and other healthcare professionals and enhance their status (Jamous & Peloille, 1970). However, UK doctors have not been spared significant changes and even threats to their work and professional autonomy despite traditionally being regarded as the dominant profession in the healthcare division of labor (Britten, 2001; Friedson, 1970; Turner, 1995; Weiss & Fitzpatrick, 1997). Beside the threats of proletarianization (due to routinization and bureaucratization of medical roles) and deprofessionalization (due to an increasingly sophisticated lay public; Britten, 2001), the introduction of NMP might be considered another challenge and a possible encroachment on doctors' territory (Eaton & Webb, 1979).

Research also suggests that doctors do feel threatened by pharmacist prescribing (Buckley et al., 2006; Child & Cantrill, 1999; Hughes & McCann, 2003) and that, for nurse prescribing, there may be a resulting confusion or blurring of professional boundaries (Hay et al., 2004). Other studies, however, have indicated generally positive attitudes toward NMP by some doctors and especially those involved in mentoring supplementary prescribing nurses and pharmacists (eg, Avery et al., 2004; Lloyd & Hughes, 2007). Despite this, a number of critical voices within the medical profession have emerged. Horton (2002), for example, has argued that nurse prescribing represents a "dangerous and uncontrolled experiment," and Keighley (2006) has questioned the safety and financial security of permitting nurses to prescribe from a full formulary. Independent rather than supplementary prescribing appeared to be particularly contentious, raising concerns about the diagnostic competencies of NMP nurses and also pharmacists. Patient safety and costs appear to be commonly invoked concerns among doctors, and Avery and Pringle (2005) have argued that a lack of research into safety and costs has fueled the controversy of too rapid a development of NMP. Perceptions of safety and competencies have been researched, though, revealing conservative, responsible attitudes among nurses (Bradley et al., 2007) and prescribing that was generally informed by accepted standards (Latter et al., 2007). One paradoxical finding is that despite the concerns emerging from sections of the medical profession about NMP. research suggests that doctors may lack awareness and understanding of NMP and supplementary prescribing in particular (Hughes & McCann, 2003; Weiss et al., 2006).

Government

NMP represents part of the UK governments' plans to modernize the NHS and was intended to lead to explicit benefits in breaking down traditional hierarchies and so "shatter the old demarcations which have held back staff and slowed down care" (DoH, 2000a, p. 83; 2000b). Five key aims were identified (Table 2), including changes in the roles undertaken by healthcare professionals, but

Table 2. Government aims of nonmedical prescribing in the United Kingdom (DoH, 2006)

Improve patient care without compromising patient safety
Make it easier for patients to get the medicines they need
Increase patient choice in accessing medicines
Make better use of the skills of healthcare professional
Contribute to the introduction of more flexible team working across the
National Health Service

patient benefits were always a priority. It has also been argued that NMP would lead to several implicit benefits for the government, primarily in relation to economic cost savings, and these are apparent in some sections of the medical professions' critique of NMP (Keighley, 2006).

Furthermore, McCartney et al. (1999) argue that plans for nurse prescribing are wrong to be viewed in terms of increasing patients' access to medicines and professionalizing nursing. Instead, they claim NMP for nurses is an exercise in saving money by using cheaper staff to prescribe, disguising a shortage of doctors by transferring routine prescribing and, politically, sending a message to the medical profession that their power can be diminished, if necessary, by the government. However, it may also be argued that the pace of NMP development in the United Kingdom together with government funding of NMP training (at strategic healthcare authority level) indicates the government's commitment to this healthcare initiative. Therefore, the UK government represents a significant driver in spite of claims that NMP might have been introduced hastily in the last decade (Avery & Pringle, 2005; Horton, 2003; Mazhindu & Brownsell, 2003).

Patients

As noted in the UK government's aims for NMP, patients are described as being central and the benefits that are claimed for patients include a reduction in waiting times for treatment, consultations, and obtaining medicines. NMP may also be congruent with recent government concerns about seeking greater patient involvement in their care given that supplementary prescribing, for example, requires the patient to agree to the development of a CMP, and indeed, the accreditation of NMP courses is contingent upon prescribers being able to demonstrate a commitment to patient involvement in the prescribing consultation. Unfortunately, little research has directly involved or engaged patients and the public in relation to NMP (Cooper et al., 2008), but what studies there are reveal that both nurse and pharmacist prescribing is valued by

patients: in the primary care setting, nurses' prescribing was viewed positively because of claims that nurses knew the patient and their condition well (Luker et al., 1998), while also providing information, reassurance, and continuity of care (Brooks et al., 2001). Research indicates that pharmacist supplementary prescribing was valued by patients (Smalley, 2006) and resulted in more medicines information being provided and longer consultations than with their doctor (Weiss et al., 2006). Patients also recognized that NMP may reduce the workload of their doctor (Brooks et al., 2001; Weiss et al., 2006), and a random sample of the public was overall confident about nurse prescribing (Berry et al., 2006).

A point about which patients may be expected to be concerned is the safety of NMP. As noted, there is scant research to underpin doctors' claims that NMP may be detrimental to patient safety, but issues such as nurses' lack of pharmacologic knowledge (Offredy et al., 2007) may be significant and further research is needed to help inform such concerns.

THE FUTURE OF NMP IN THE UNITED KINGDOM

NMP in the United Kingdom still represents a small percentage of the overall prescribing in community and primary care: in 2006 in England, nurses prescribed 6,307,506 items and pharmacists only 31,052 items, representing 0.8% and 0.004%, respectively, of the overall volume of some 751,954,100 items prescribed (Guillaume et al., in press; Horner, 2007). However, the trend overall is toward significant increases year on year for nurses and pharmacists, and, for independent nurse prescribing, this has increasingly included medicines, such as antibiotics, previously prescribed only by doctors (Prescribing Support Unit, 2007). As regards the future of NMP, it is anticipated that further increases in prescribing volume will occur as more pharmacists qualify independently, and there are proposals as well for optometrists to become independent prescribers. This also calls into question the education and training of those hoping to undertake NMP and this may be a significant factor and require changes in the future for the success of NMP. As Avery and James (2007) note, enduring concerns about nurses' lack of pharmacologic knowledge and pharmacists' lack of diagnostic and examination skills may require the integration of NMP training into the undergraduate curricula of these professions instead of what they consider to be the inadequate present 26-day course and 12-day learning in practice. This may also address concerns about the number of NMP courses nationally that teach nurses, pharmacists, and allied healthcare professionals together despite each professions' potentially very different educational needs.

CONCLUSIONS

The introduction of NMP in the United Kingdom has been relatively rapid and also ambitious in embracing not only nurses and pharmacists but also, more recently, other allied healthcare professionals while trying to balance a number of competing professional concerns. The question of whose interests NMP serves is not an easy one to answer because there appear to be conflict-

ing arguments about benefits, even among individual stakeholder groups: for nurses, in particular, it would appear that their professional interests are served by greater clinical autonomy and better working practices with NMP, but may also be detrimentally affected if they are viewed as being merely exploited as a "cheaper" source of labor, who are being asked to move away from the traditional guiding principles of caring. For the medical profession, too, there is a tension between viewing NMP as a mechanism that will lead to improved working practice or a threat to professional dominance and power within the healthcare division of labor. The conflicting views expressed by doctors positively involved in NMP mentoring, and those who hold critical views about the entire NMP enterprise make it difficult to determine whether NMP is ultimately in the interests of the medical profession. It appears likely, however, that NMP in the United Kingdom will continue to expand and the issues and interests explored in this article—professional autonomy, boundary encroachment, patientcentered policy, and economic costs-will continue to not only drive these developments but also cause potential conflict.

REFERENCES

- Armstrong, P., McCleary, K. J., & Munchus, G. (1995). Nurse practitioners in the USA—Their past, present and future some implications for the health care management delivery system. *Health Manpower Management*, 21(3), 3-10.
- Avery, A. J., & James, V. (2007). Developing nurse prescribing in the UK. *British Medical Journal*, 335(7615), 316.
- Avery, A. J., & Pringle, M. (2005). Extended prescribing by UK nurses and pharmacists: With more evidence and strict safeguards, it could benefit patients. *British Medical Journal*, 331, 1154-1155.
- Avery, A. J., Savelyich, B. S. P., & Wright, L. (2004). Doctor's views on supervising nurse prescribers. *Prescriber*, 15(17), 56-61.
- Baumann, A., Deber, R. B., Silverman, B. E., & Mallette, C. M. (1998). Who cares? Who cures? The ongoing debate in the provision of health care. *Journal of Advanced Nursing*, 28(5), 1040–1045.
- Berry, D., Courtenay, M., & Bersellini, E. (2006). Atti-

- tudes towards, and information needs in relation to, supplementary nurse prescribing in the UK: An empirical study. *Journal of Clinical Nursing*, *15*, 22-28.
- Bissell, P., Blenkinsopp, A., Short, D., & Mason, L. (2008). Patients' experiences of a community pharmacyled medicines management service. *Health and Social Care in the Community*, doi: 10.1111/j.1365-2524.2008.00749.x.
- Blenkinsopp, A., & Bradley, C. (1996). Patients, society and the increase in self medication. *British Medical Journal*, 312, 629-632.
- Bradley, E., Hynam, B., & Nolan, P. (2007). Nurse prescribing: Reflections on safety in practice. *Social Science and Medicine*, 65(3), 599-609.
- Britten, N. (2001). Prescribing and the defence of clinical autonomy. *Sociology of Health and Illness*, 23(4), 478–496.
- Brooks, N., Otway, C., Kilty, E., & Maggs, C. (2001). The patient's view: The benefits and limitations of nurse

- prescribing. *British Journal of Community Nursing*, 6, 342–348.
- Buckley, P., Grime, J., & Blenkinsopp, A. (2006). Inter and intra professional perspectives on non-medical prescribing in an NHS trust. *Pharmaceutical Journal*, 277, 394–398.
- Child, D., & Cantrill, J. A. (1999). Hospital doctors' perceived barriers to pharmacist prescribing. *Interna*tional Journal of Pharmacy Practice, 7, 230–276.
- Cooper, R. J. (2007). Ethical problems and their resolution amongst UK community pharmacists: A qualitative study. PhD thesis, University of Nottingham.
- Cooper, R. J., Anderson, C., Avery, T., Bissell, P., Guillaume, L., Hutchinson, A., et al. (2008). Nurse and pharmacist supplementary prescribing in the UK—A thematic review of the literature. *Health Policy*, 85, 277-292.
- Department of Health and Social Security. (1986). *Neigb-bourbood nursing—A focus for care* (Cumberlege report). London: HMSO.
- Department of Health. (1989). Report of the Advisory Group on Nurse Prescribing (Crown report). London: HMSO.
- Department of Health. (1999). Review of prescribing, supply and administration of medicines. A report on the supply and administration of medicines under group protocols. London: Author.
- Department of Health. (2000a). *The NHS plan.* London: Author.
- Department of Health. (2000b). Pharmacy in the future: Implementing the NHS plan. A programme for pharmacy in the National Health Service. London: Author.
- Department of Health. (2005). Supplementary prescribing by nurses, pharmacists, chiropodists/podiatrists, physiotherapists and radiographers within the NHS in England: A guide for implementation—Updated May 2005. London: Author.
- Department of Health. (2006). Improving patients' access to medicines: A guide to implementing nurse and pharmacist independent prescribing within the NHS in England. London: Author.
- Eaton, G., & Webb, B. (1979). Boundary encroachment: Pharmacists in the clinical setting. Sociol Health Illness, 1, 69-89.
- Emmerton, L., Marriott, J., Bessell, T., Nissen, L., & Dean, L. (2005). Pharmacists and prescribing rights: Review of international developments. *Journal of Pharmacy* and Pharmaceutical Science, 8(2), 217–225.
- Fawcett, J. (2007). Nursing qua nursing: The connection between nursing knowledge and nursing shortages. *Journal of Advanced Nursing*, 59(1), 97-99.
- Friedson, E. (1970). Profession of medicine. New York: Dodd.
- George, J., McCaig, D. J., Bond, C. M., Cunningham, I. S., Diack, H. L., Watson, A. M., et al. (2006). Supplementary prescribing: Early experiences of pharmacists in Great Britain. *Annals of Pharmacotherapy*, 40(10), 1843–1850.
- Guillaume, L., Cooper, R., Avery, A., Mitchell, S., Ward, P.,

- Anderson, C, et al. (2008). Supplementary prescribing by community and primary care pharmacists: An analysis of PACT data. *Journal of Clinical Pharmacy and Therapeutics*, 33(1), 11–16.
- Hall, J., Cantrill, J., & Noyce, P. (2006). Why don't trained community nurse prescribers prescribe? *Journal of Clinical Nursing*, 15(4), 403-412.
- Hay, A., Bradley, E., & Nolan, P. (2004). Supplementary nurse prescribing. *Nursing Standard*, 18, 33-39.
- Health and Social Care Act, §.63 (2001)
- Horner, L. (2007). Pharmaceutical directorate management meeting: 07/03/2006 Update on growth in prescription volume and cost, year to December 2006. Retrieved May 7, 2008, from http://www.ppa.org.uk/pdfs/publications/SMT_V&C_report_200612.pdf
- Horton, R. (2003). Nurse-prescribing in the UK: Right but also wrong. *The Lancet*, *359*(9321), 1875–1876.
- Hughes, C. M., & McCann, S. (2003). Perceived professional barriers between community pharmacists and GPs: A qualitative assessment. *British Journal of General Practice*, 53, 600-606.
- Jamous, H., & Peloille, B. (1970). Professions or self perpetuating systems? Changes in the French university hospital system. In J. A. Jackson (Ed.), *Professions and professionalization*. Cambridge: Cambridge University Press; 110-152.
- Jones, M. (1999). Nurse prescribing. The history, the waiting, the battle. In M. Jones (Ed.), *Nurse prescribing: Politics to practice*. London: Balliere Tindall; 5-28.
- Keighley, B. (2006). Should nurses prescribe? *British Journal of General Practice*, 56(522), 68.
- Latter, S., Maben, J., Young, A., & Baileff, A. (2007). Evaluating prescribing competencies and standards used in nurse independent prescribers' prescribing consultations. *Journal of Research in Nursing*, 12(1), 7-26.
- Leathard, H. L. (2001). Understanding medicines: Conceptual analysis of nurses needs for knowledge and understanding of pharmacology (Part I). Nurse Education Today, 21, 260–271.
- Lloyd, F., & Hughes, C. M. (2007). Pharmacists' and mentors' views on the introduction of pharmacist supplementary prescribing: A qualitative evaluation of views and context. *International Journal of Pharmacy Practice*, 15, 31–37.
- Luker, K., Austin, L., Ferguson, B., & Smith, K. (1997).
 Nurse prescribing: The views of nurses and other health care professionals. *British Journal of Community Nursing*, 2, 69-74.
- Luker, K., Austin, L., Hogg, C., Ferguson, B., & Smith, K. (1998). Nurse-patient relationships: The context of nurse prescribing. *Journal of Advanced Nursing*, 28, 242–253.
- Mazhindu, D., & Brownsell, M. (2003). Piecemeal policy may stop nurse prescribers fulfilling their potential. *British Journal of Community Nursing*, 8(6), 253-255.
- Malone, R. (2003). Distal nursing. Social Science and Medicine, 56, 2317–2326.

Mcartney, W., Tyrer, S., Brazier, M., & Prayle, D. (1999). Nurse prescribing: Radicalism or tokenism? *Journal of Advanced Nursing*, 29(20), 348–354.

Medicines Act (1968)

- Medicinal Products: Prescription by Nurses etc Act (1992)
- Nurse Prescribers' Formulary. (1994). In: Prasad (Ed.), *British National Formulary, Number 28*, London: Pharmaceutical Press.
- Nursing and Midwifery Council. (2007). Statistical analysis of the register, 2005–2006. London: Author.
- Nuffield Report. (1986). Pharmacy: The report of a committee of inquiry appointed by the Nuffield Foundation. London: Nuffield Foundation.
- Offredy, M., Kendall, S., & Goodman, C. (2007). The use of cognitive continuum theory and patient scenarios to explore nurse prescribers' pharmacological knowledge and decision-making. *International Journal of Nursing Studies*, doi: 10.1016/j.ijnurstu.2007.01.014.
- Prescribing Support Unit. (2007). *Prescribing monitoring report. Quarter 2: 2006–2007*. Retrieved May 7, 2008, from www.ic.nhs.uk/webfiles/Services/PSU/Doc%20Q2%202006%2007.pdf
- Rodden, C. (2001). Nurse prescribing: Views on autonomy and independence. *British Journal of Community Nursing*, 6, 350–355.

- Sims, R., & Gardiner, E. (1999). Nurse prescribing. The lawmakers. In M. Jones (Ed.), *Nurse prescribing: Politics to practice*. London: Balliere Tindall; 67–80
- Smalley, L. (2006). Patient's experience of pharmacist-led supplementary prescribing in primary care. *Pharma*ceutical Journal, 276, 567-569.
- Sodha, M., McLaughlin, M., Williams, G., & Dhillon, S. (2002). Nurses' confidence and pharmacological knowledge: A study. *British Journal of Community Nursing*, 7, 309–315.
- Turner, B. (1995). *Medical power and social knowledge*, London: Sage.
- Warchal, S., Brown, S., Tomlin, M., & Portlock, J. (2006).
 Attitudes of successful candidates of supplementary prescribing courses to their training and their extended roles. *The Pharmaceutical Journal*, 276, 348–352.
- Weiss, M., & Fitzpatrick, R. (1997). Challenges to medicine: The case of prescribing. *Sociology of Health & Illness*, 19(3), 297.
- Weiss, M., Sutton, J., & Adams, C. (2006). Exploring innovations in pharmacy practice: A qualitative evaluation of supplementary prescribing by pharmacists. Bath: Department of Pharmacy and Pharmacology, University of Bath.