Inter- and intra-professional perspectives on non-medical prescribing in an NHS trust

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Abstract

Aim
To investigate the factors that will enable or inhibit the implementation of non-medical prescribing.

Design
Qualitative, semi-structured interview based study.

Subjects and setting
A purposive sample of 15 stakeholders in one NHS trust in the West Midlands.

Results
All stakeholders broadly supported the introduction of non-medical prescribing within the trust although medical staff had reservations and thought it should operate within controlled protocols and disagreed with the concept of independent prescribing. Nurses were perceived as benefiting from close patient contact in relation to prescribing but disadvantaged through having insufficient pharmacological knowledge. Pharmacists were seen by doctors and nurses as being experts in drug therapy but lacking diagnostic skills and knowledge of patients.

Conclusion
The study has identified that inter- and intra-professional relationships will be a key factor in the implementation of non-medical prescribing within the trust. The concept of “knowing the patient” is not one that has been explored in any depth in the pharmacy research or practice literature to date but has emerged here here as a key finding.

Keywords: non-medical prescribing, pharmacy, nurses, doctors, NHS trust.
way for nurses and then other health care professionals, such as pharmacists, to prescribe.

Non-medical prescribing has been supported by the professional bodies representing nursing and pharmacy. However major reservations about nurses and pharmacists prescribing have arisen from the medical profession both as a body and at an individual level. The kinds of medical concerns expressed about pharmacist prescribing have included lack of access to medical records, accountability and compromised patient safety from not separating prescribing and dispensing. Individual concerns have been raised about nurse prescribing. These include lack of pharmacological knowledge by nurses, even about those products associated with nursing expertise, such as wound management, catheter selection, and items in the Nurse Prescribers' Formulary.

Most recently the proposals for independent prescribing by pharmacists evoked strong opposition from the British Medical Association, which cited risks to patient safety: "We believe only doctors have the necessary diagnostic and prescribing training that justifies access to the full range of medicines for all conditions".

The interprofessional obstacles to pharmacist and nurse prescribing have been well demonstrated. However, intra-professional issues may also occur. For example, published literature supports the view that ward-based nurses may refuse to treat patients seen by specialist nursing staff. Nurses themselves may have reservations about extending their roles into prescribing. Accountability for prescribing decisions may be an issue, particularly given that there may be differences in the way nurses are treated after a drug error compared with the way doctors are treated. Nurses may be dealt with by their professional body in a more aggressive manner than the corresponding medical body.

While the literature suggests that there may be barriers for other pharmacists as prescribers from other health care professionals and from NHS management, pharmacists themselves may not wish to prescribe. The literature suggests a number of possible barriers, including pharmacist apartheid and the reluctance to take on the responsibility. This paper focuses on the attitudes of key stakeholders towards non-medical prescribing.

**Method**
A qualitative method was used. Semi-structured interviews were conducted with 15 stakeholders in a secondary care trust purposefully sampled to provide a mix of clinical, operational, strategic and service user inputs.

During the interview, respondents were asked initially to establish their familiarity with non-medical prescribing and how they felt about its introduction. They were asked to comment about potential applications of non-medical prescribing within the trust and whether they thought there were other areas, the possible benefits and potential problems of introducing non-medical prescribing.

The main component of the interviews explored the views of stakeholders in relation to how non-medical prescribers would be perceived by patients and by health care professionals. Respondents were asked how they thought doctors and patients might react to nurses and pharmacists prescribing and how pharmacists and nurses might react to each other as prescribers. In addition, respondents were asked for their perceptions about whether nurses and pharmacists might wish to prescribe.

Ethics committee approval was applied for and received in February 2003 and interviews conducted between May and October 2003.

Interviews lasted between 18 and 80 minutes and were tape-recorded with the respondents' permission (except for one due to technical reasons). They were subsequently fully transcribed for content analysis. Coding categories were developed from predetermined themes from published literature and from scrutiny of the interview transcripts. These were then refined subsequently upon reflection on the transcripts and reanalysis of the codes. The qualitative research package NUD*IST N6 was used to input and aid analysis of the coded data. The concepts of "boundary encroachment" (pharmacists taking on tasks traditionally deemed to be part of the medical terrain), "accommodation" (medical support for developing roles of pharmacists), "limitation" (which sets boundaries to accommodation) and "exclusion" (with some activities out of bounds to pharmacists), were used to explore medical respondents' attitudes.

The results of the study are presented as follows using anonymised, illustrative quotes.

**Results**
The introduction of non-medical prescribing within the trust was supported, in principle, by all respondents.

In the following responses from nurses, streamlining services and increased efficiency were seen as benefits. The first respondent specifically identifies saving the time of both nurses and patients, and the second highlights role development for leading edge nurses.

"I think it's a good idea. I mean we know what needs to be prescribed for certain patients and you've got to wait for a doctor to prescribe it where you could be getting on and carrying on and doing whatever you want to do with the job in hand. Stops patients having to wait or reduce their time really. (O utpatients sister)"

I think it can be a really positive service that we could implement. E specially 'cause we've got keen practitioners who have already identified the positive impact it would have on their roles as well as the positive impact it would have on the service (D irectorate nurse manager)

The theme of increased efficiency was also evident in the response from a hospital manager:

"I think as a general concept it's sound to me. I think the areas that I'm interested in through my role are in terms of improving the efficiency of the patient care process. (D irector of performance and planning)"

One doctor's response indicated an expected personal benefit in reduced workload:

"I think sensible doctors will react positively to that as I say because it will save the time. It will save a lot of hassle. (M edical registrar)"

The first four quotes show that benefit was evaluated in terms of non-medical prescribing impacting favourably on patients and doctors. The doctor in the final quote set boundaries by making nurse and pharmacist prescribing subject to a condition of compliance with guidelines.

**Setting the boundary**
There was recognition that the boundary between doctors and pharmacists in relation to prescribing roles has already been altered through informal and convenient practices such as pharmacists writing a prescription and the doctor then signing it. Supplementary prescribing policy would legitimise such practice:

"It's actually formalising something which has happened off the record for years. I mean the number of times I've prescribed this — C an you sign here? — W hich is not really satisfactory. (C onsultant)"

Ward-based clinicians thought that junior doctors would be receptive to the introduction of prescribing applications which directly benefited them. It was believed that these doctors would welcome the idea of delegating routine work such as writing discharge prescriptions, prescribing anticoagulation and not having to come out during the middle of the night to amend or modify prescriptions or prescribe new therapies, such as laxatives and analgesia. Most emphasis was put on not having to write discharge prescriptions.

I think they [the doctors] would probably be glad of that because they don't seem to like doing it themselves. I mean trying to catch a doctor to do a TTO [discharge prescription] is difficult some days and plus they're busy doing rounds on five wards, and you've got TTOs to do, and the consultant wandered off onto another ward and they've promised to come back. You get the delay whereas if the pharmacist came along did all the prescribing then there
would be no delay and it’s gonna save them a job.
(Ward sister)

Yes please. You know they’re involved in the dispensing of and appropriate handling of these drugs. T hey’ve got the drug chart; they’ve got the discharge prescription, that’s just not a problem as far as I’m concerned. (C consultant)

Despite the potential benefits to doctors, further development of nurses’ and pharmacists’ roles in prescribing could encroach on the doctor’s domain, which might give rise to medical opposition. So although there were a number of examples of non-medical prescribing that would be accommodated, some limitations were felt necessary. For example, the two consultants interviewed were comfortable with nurses or pharmacists prescribing as long as they had been assessed as competent and that the prescribing was within clearly defined protocols.

I think if it’s within a plan an agreed protocol that’s fine. (C consultant/clinical director for medicine)

Furthermore, trust and confidence in nurses’ or pharmacists’ abilities to prescribe and working within a team were thought to be important:

I think if you all work in a team, you trust others and I would trust my dialysis nurses nearly all of them, there are a couple I wouldn’t, nearly all of them to prescribe the right thing and if they phoned up and said we’ve done x, y and z, wouldn’t feel the need to go and check it ‘cause I know they would. (C consultant)

Thus doctors set limits as to which nurses or pharmacists could prescribe (competent and trusted) and what they would do (staying within protocols). However, there was resistance to the notion of independent prescribing:

... and the area that you’re prescribing under, I can see things like writing T O S as being received more positively than prescribing in specialist areas or prescribing in maybe non-specialist areas but prescribing independently? (C clinical pharmacist)

Medical reluctance to independent prescribing roles for nurses or pharmacists was tantamount to “exclusion” with independent prescribing remaining on the doctors’ side of the inter-professional boundary. Two relatively simple prescribing scenarios, namely changing antibiotic therapy and prescribing simple analgesics such as co-codamol or ibuprofen, show how one doctor explained the need for this exclusion:

I mean you have to look into indices here, temperature I mean the patient as a whole — the symptoms eg temperature, inflammatory markers, white cell count — all these things. So I think it’s quite medical here, erm, but I’ve seen many times the nurse says “D octor can you stop the IV antibiotics for this patient as he’s appy” has had three days and we look into white cell count which was done maybe same that day is 20,000 and C R P [C-reactive protein] of 200 and E S R [erythrocyte sedimentation rate] of more than 100. So patient needs to continue IV antibiotics or the temperature has just settled today was 39 last night so I think it’s, again, should be a doctor decision. (M medical registrar)

This respondent appears to be laying claim to certain knowledge and the implication is that non-medical staff would be unable to learn or grasp this knowledge. The same respondent also put forward technical reasons why prescribing simple analgesia might be dangerous and thus implied that this should remain within the control of doctors:

For somebody who is in pain paracetamol is fine, but to give co-codamol to somebody with C O P D [chronic obstructive pulmonary disease], who’s on inbulisers, whose pO 2 is 10 who has some neck pain or headaches and so that will do no good for his respiratory drive.

Interviewer: So there is a clinical aspect here?

Yes, I mean paracetamol is definitely fairly safe but the things in the analgesia, codeine and stuff, also the non-steroids as well. (M edical registrar)

An opposite view recognised the experimental learning of nurses and pharmacists who had many years in post as against the lack of experience of junior doctors. The relationship between experienced non-medical staff and inexperienced doctors was reflected upon by trust managers:

I mean we all know for instance when the SH O comes in it’s usually the ward sister who helps them through the first weeks because they’ve accrued that knowledge over many years, and they’re dealing with the same patient population all the time and yet it’s still the new senior house officer who frankly, er, he is not experienced. (D irector of performance and planning)

Why should a patient, for example, come into an emergency department and wait to be initially assessed by, say, an experienced nurse practitioner and then to be referred on to a doctor who maybe has less years experience simply to be prescribed a particular drug? That’s a delay that should be unacceptable to the patient, particularly for an emergency admission. (B usiness manager, medicine)

These managers argued for the reality of who was teaching whom about prescribing appropriate medicines to patients to be acknowledged.

One perceived advantage of nurse prescribing was that nurses “know the patients well” since they have more prolonged contact with them on wards than pharmacists do and thus forge closer relationships. This notion was identified within the accounts of several respondents from medical, nursing and management groups:

I think the nurses possibly would want to do it because they can see they are the closest to the patient after all, and they can see the benefits of the inter-fare between the patient and themselves. They can, they would like to care for that patient and by being able to prescribe drugs under a controlled programme they would be able to do that. (N on-executive member of trust board)

To be quite honest I think a patient would prefer a nurse because although the doctors talk to them the first thing when they go out is “W hat did he say nurse? W hat’s this?” They don’t ask the doctors the questions they ask us and that’s why we need to be there with them to listen to what’s going on ‘cause we can explain to the patient why they’ve started on these drugs (O utpatients sister)

You’re talking senior staff, experienced staff in very specialised areas who have a close relationship with the patient often involving chronic conditions and conditions that they should be more than familiar with, often working as part of a specialist team, so I think they would relish the opportunity to have that extra responsibility. (B usiness manager, medicine)

Pharmacists, on the other hand, were perceived to have little contact with patients to lack knowledge of the full clinical picture of the patient and not to know them as people:

I mean to be honest it’s quite complicated because the I mean it’s not just everything in the BNF, protocol of management of heart failure, when to up the A C E dose when to start the beta blocker, when to reduce the dose of any medication, when to stop, so it’s not just about side effects, cautions, contraindication. It’s also the patient general condition, eg kidney function, liver function, patient as a whole. I would think that the pharmacist could be unable to do that. (M edical registrar)

... pharmacist will know the drug, if not so much the patient, and I think the difference between the nurse and the pharmacist is the interface with the patient whereas the patient, the patient to the pharmacist will perhaps only be a name on a clinical record. (N on-executive member of trust board)

Additionally it was thought that pharmacists lacked diagnostic skills, which would be detrimental to undertaking prescribing roles.

At the other side of the question about whether pharmacists could prescribe, would a pharmacist be able to clinically diagnose the condition that we are actually treating (H ouse officer)

However a disadvantage for nurses was that, unlike pharmacists they were perceived, particularly by pharmacists, to have insufficient knowledge of drugs to prescribe safely. Pharmacists will have a problem seeing the nurse’s role in prescribing because of their knowledge of the products. (C hief pharmacist)

I’m sure within the hospital they [nurses] could prescribe painkillers but it’s difficult because you’ve got your interactions and things which from experience some times they’re not aware of. It could be, could be quite dangerous. (P registration trainee)
Although nurse prescribing was supported in principle, doctors' and pharmacists' accounts indicated a belief that nurses lack the knowledge to prescribe.

The findings presented so far have revealed a number of inter-professional reservations about prescribing by nurses and pharmacists. Outside these reservations, there is also the question of whether nurses and pharmacists would actually wish to prescribe and how colleagues within their own profession might view them undertaking such prescribing roles.

**Intraprofessional issues for nurses and pharmacists**

Respondents thought that nurses themselves may not want the additional responsibility of prescribing or may feel that they have insufficient time to prescribe. Prescribing might be seen as tasks like IV cannulation and venepuncture, work which is unwanted by doctors and, therefore, deemed suitable to transfer to nurses to do.

I think there are, there would be a mixed reaction. I think there are those who probably believe that we've got far too much on, we can't possibly take on any more and there's not enough of us as there is now, you're expecting us to take on more responsibility, couldn't possibly cope, so there would be that camp. (Business manager, medicine)

But again going back to the general areas I think you know people may just see it as a "oh god it's something else that's been dumped on us sort of thing". (Clinical governance officer)

The consequences of making mistakes and accountability were major issues.

But I think with nurses it's a new role for them and they'd have to be confident to take that on and I think because of the way particularly nursing control is set up they haven't got as much back up if they make a mistake as we have, you know if a doctor makes a prescribing mistake. The consequences are much more serious for the nurse than they are for the doctors. (Consultant)

It was suggested that nurses who undertake prescribing roles might come into conflict with nurses who would not want a prescribing role. For example, on general wards some nurses might undertake new roles while others would prefer to remain as traditional "nurses":

I think you may get a lot of resentment, resentment from nurses themselves to actually take on the role. I think there would be a lot of nurses that wouldn't be happy to take on the role because you get nurses who aren't very proactive and a lot of those like to sit on the fence and take, if you know what the word I'm looking for, a subservient sort of role. You know, you'd rather have a doctor tell them what to do, they don't want the accountability, they don't want the responsibility. But you get those dynamic nurses you just get that divide you know, wherever you work. You always get that with nursing (Ward sister)

Pharmacists thought there may be greater reluctance by pharmacists than nurses to undertake new roles in prescribing:

I think you would probably find more resistance from pharmacists than you would from nurses. 'cause nurses have traditionally taken on additional roles and undertaken additional qualifications to enable them to perform their roles and I think they're more used to doing it than pharmacists. (Clinical pharmacist)

Pharmacists have traditionally checked the accuracy and safety of doctors' prescribing. The chief pharmacist questioned pharmacist prescribers' reaction to receiving similar checks:

Pharmacists have got to be particularly careful with this because they will have other pharmacists intervening on their prescribing and that will be interesting, there will be some interesting and challenging professional dilemmas there. (Chief pharmacist)

Thus friction between the pharmacist prescriber and the pharmacist dispensing the prescription could be a source of intraprofessional tension.

**Discussion**

In principle non-medical prescribing was seen as a positive move within the trust, which was reflected by all stakeholders interviewed. However the support of medical staff for nurse and pharmacist prescribing was seen as essential for successful implementation.

Doctors have traditionally been the dominant health care professional and historically have been reluctant to share their power. There have been some changes in recent years, for example nurses now routinely take blood pressure and administer intravenous antibiotics. Doctors have, therefore, shown willingness to accommodate new roles for non-medical health professionals — roles which were traditionally carried out by doctors. This can also be observed in pharmacy with the gradual acceptance of clinical pharmacy, which includes tasks such as giving information about medicines to patients. However, prescribing has been seen as a role for doctors only.

The results of this study showed that doctors would accommodate some boundary encroachment by nurses and pharmacists into the territory of prescribing activities. Doctors, particularly junior doctors, were prepared to support the writing of discharge prescriptions by pharmacists. This might not be a "true" prescribing role if it only involved transcribing medical lists of prescribed medicines from the case record to the discharge prescription.

However although doctors were happy to delegate some tasks there was a strong emphasis on prescribing within protocols. For example, the management of chronic diseases, such as renal failure and working in outpatients clinics, were acknowledged as suitable areas but within controlled parameters. It could be argued that the medical profession would, therefore, keep control and limit the extension of the role of the nurse or pharmacist. Effectively, they would still remain as the dominant professional group. This may be particularly true when looking at the areas of medical exclusion suggested.

For example, the conversion of intravenous to oral antibiotics by nurses or pharmacists was not supported by doctors, despite this being a problematic area where failure of medical review leads to inappropriate long courses of intravenous therapy. The reasons doctors put forward why nurses or pharmacists should not change antibiotics included lack of drug knowledge and the need for clinical assessment of the patient. The prescribing of analgesics and anti-inflammatory drugs without doctor involvement was opposed. Doctors' may be genuinely concerned that pharmacists and nurses could place patients at risk if they took on these tasks.

An alternative explanation is that doctors are unwilling to relinquish medical control, and rationalise this by citing patient safety concerns. It can be argued, for example, that the prescribing of ibuprofen or co-codamol by junior doctors is inherently more risky than pharmacists doing so given the limited pharmacological knowledge of junior doctors. Indeed, the inadequacy of doctors' undergraduate pharmacological knowledge and training to prescribe safely has been acknowledged in the published literature as an issue. This raises an interesting paradox. Medical staff may disagree with non-medical prescribing of over-the-counter medicines, such as co-codamol by nursing staff, yet embrace the prospect of nurses managing anti-coagulation and the use of warfarin. Arguably warfarin poses a greater threat to patient safety than co-codamol does.

Although medical staff may come to accept non-medical prescribing where protocols and other controls are in place, it seems unlikely they will accommodate independent prescribing. One reason is that doctors fear they will lose control over prescribing if other groups, such as nurses and pharmacists, are able to act autonomously. This presents a challenge to the success of moves to extend independent prescribing. Medical staff were also concerned about being held responsible for another professional's prescribing decisions. This would not pose a problem if the non-medical prescriber operates within clearly defined protocols. However protocols also ensure that medical control is retained.

Concerns about the levels and sufficiency of nurses' drug knowledge have featured in
published literature and were raised in this study. Given the limited amount of prescribing training that junior doctors receive it is interesting that both doctors and pharmacists raised this as an issue only in relation to nurse prescribing. It could be argued that experienced nurse practitioners working with a limited number of drugs with which they are fully familiar would be safer than inexperienced junior doctors in the same environment. Such reservations may not be genuine concerns but a rationale for negative reactions to nurses extending their role.

There could be intraprofessional tensions within the nursing ranks over nurse prescribing. Nursing has developed significantly as a profession since the days of Florence Nightingale and many nurses have adopted highly specialist roles. However, there may be nurses who would prefer to remain as the original “doctors’ handmaiden” and not to extend their role to include areas such as venepuncture and IV drug administration, let alone prescribing. Nurses will probably have a natural inclination to take responsibility, issues over accountability if mistakes are made, and lack of time and resources to take on prescribing were concerns raised by nurses.

Pharmacists were perceived as having drug knowledge perhaps even superior to that of doctors. However, in comparison with nurses, pharmacists were thought neither to have the same level of knowledge of the patient nor to contribute actively and directly towards direct patient care. The emergence of “knowing the patient” as a concept, and its relationship to “new nursing” has been explored in recent literature, albeit more commonly in the hospital context. Radwin identifies factors consistently related to knowing the patient. These include the continuity of contact and a sense of closeness between the patient and the nurse. It is argued that knowing the patient constitutes a unique contribution of nursing to quality patient care because it ensures patients are treated as individuals. Radwin suggests that this knowledge can inform decision-making and may be a factor that facilitates the achievement of positive patient outcomes.

Medical and nursing staff were particularly worried that pharmacists would not know the patient. Similar findings have been reported in primary care and secondary care and this is clearly an issue, whether actual or perceived. Perhaps as a consequence, the roles suggested for pharmacists as prescribers in this study were of a more “functional” nature, such as writing discharge prescriptions or rewriting inpatient ward Kardexes associated with ward pharmacy. These proposed roles fall outside the current supplementary prescribing model. Writing discharge prescriptions, for example, is a “transcribing” role. Nurses would benefit from pharmacists taking on these functional roles and, for this reason, support the idea. Pharmacists were not viewed as professionals who might work within outpatient clinics or as clinical specialists. This may reflect current practice and a lack of appreciation of potential pharmacist roles.

Conclusion

The findings of this study suggest divergence between the image of pharmacists in the eyes of medical and nursing clinicians, and pharmacists’ own self-image and aspirations for practice development. The concept of “knowing the patient” is not one that has been explored in any depth in the pharmacy research or practice literature to date but has emerged here as key.

Pharmacists can use the findings of this study to reflect on these issues and on the potential barriers to the implementation of non-medical prescribing and to consider possible ways in which they might be addressed. Our findings also suggest that although nurses may support pharmacist prescribing on wards they may oppose it in areas where they have already developed niches, some of which pharmacists may wish to move into. Therefore, in addition to the issues of boundary encroachment between non-medical prescribers and medicine, there is also the question of future possible competition between nursing and pharmacy for extension of territory.

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References