Responsibility, accountability and factors influencing provision of pharmacist transcription of discharge prescriptions

R. J. Hobson and G. J. Sewell

Abstract

Objectives To investigate the legal issues concerning authorisation of pharmacist transcribed discharge prescriptions and the prevalence of formal protocols for such a service, and to identify the factors influencing the decision on whether to provide a pharmacist discharge prescription transcription service (PDPTS).

Method Postal questionnaire survey of clinical pharmacy managers. The sample included one hospital in each of the acute trusts in the UK.

Key findings The questionnaire completion rate was 66% (135/206). Thirty-six per cent of pharmacy departments (49/135) reported that they offered a PDPTS. The majority of the pharmacy departments with a PDPTS required a medical practitioner to countersign the pharmacist-written prescription (65%) and had a formal protocol for their PDPTS (57%). Seven hospitals reported that they 'sometimes' asked the doctor to countersign/authorise the discharge prescription, and 10 hospitals reported that they did not ask the doctor to countersign/authorise the prescription. The most common reasons for implementing a PDPTS were to reduce delays in the discharge process (73%) and to reduce errors (50%). Among pharmacy departments with no plan to provide a PDPTS, the main reasons given for not developing this service were insufficient resources (62%) and preferentially developing other services (24%).

Conclusion There is currently no consensus upon authorisation requirements of pharmacist-written discharge prescriptions and the legal position is unclear. The hospital pharmacy departments that 'sometimes' request a medical practitioner's counter-signature raise clinical governance and medico-legal issues, especially if their practice deviates from trust policy. The reasons given for implementation of a PDPTS concur with those found in previous studies.

Introduction

We have previously reported that, in 2001, 36% of hospital pharmacy departments in the UK were offering a pharmacist discharge prescription transcription service (PDPTS).1 There are signs that the number of hospitals offering such a service is increasing.2 Review of the published literature suggests that pharmacists writing discharge prescriptions is a role that is peculiar to the UK. Although pharmacists in certain US States have extensive prescribing rights in terms of initiating, modifying and discontinuing medication, especially in outpatient clinics,3-5 only one US abstract could be identified which concluded that pharmacists should write discharge prescriptions on the basis of fewer adverse drug events and greater cost-effectiveness when compared with prescriptions written by physicians and nurse practitioners.6 No such literature could be found from European sources. This could be due to discharge prescription provision not being such a source of delayed discharge or error in these countries as in the UK. Also, primary care may be more involved in the discharge process.

There is currently no legal framework for non-medical professionals to write discharge prescriptions. In the absence of a recognised definition of transcribing, it is also unclear whether the process of writing the discharge prescription is prescribing or transcribing.

The current guidance in the Royal Pharmaceutical Society of Great Britain's 'Medicines, Ethics & Practice' guide suggests that the process is transcription, and states:
“Providing the entry [upon the patient’s bed card] fulfils the requirements, the details can be transposed onto an order form, to be used in pharmacy to prepare the take home medication. It is good practice for the transposition to be carried out by a pharmacist. By carrying out this transcription the pharmacist is not prescribing, as the original written direction to supply was made by a practitioner.”

However, in undertaking the act of transcription, there is an implied professional obligation upon the pharmacist to review the prescribed medicines and to respond appropriately to any errors or inappropriate prescribing. If this process did not occur there would be no need for a pharmacist to copy one list of medicines to another – a medical secretary could do this. Therefore the question arises as to whether this professional review of the prescription changes the process from transcribing to prescribing.

One of the key issues seems to be the question of who is legally responsible for the prescriptions that are written by pharmacists in this situation. Anecdotal evidence suggested that some hospitals operating a PDPTS were asking the doctor to co-sign the prescriptions that were written by pharmacists, while other hospitals were not.

The UK Department of Health’s recent document on hospital discharge suggests that the medical practitioner is still responsible for signing the prescription where any medication changes have been made. This would suggest that the discharge prescription would need signing by the doctor only if the pharmacist reviews the drug chart and wants to change any of the medications. If the pharmacist makes no changes to the medication, it would not need signing by the medical practitioner, according to the Department of Health. This raises a further question about whether the doctor would still be legally responsible for an unchanged discharge prescription that is written and signed by a pharmacist.

Because the legal status of, and responsibility for, these prescriptions written by pharmacists is unclear, these issues could be considered a potential barrier to development of a PDPTS. No previous study has addressed this.

Several reports have noted the benefits of providing a PDPTS. It has been suggested that services such as PDPTS can speed up the discharge process, and also help to release junior doctors’ time. However, there is no consensus view on the benefits of the process. It is also unknown how much influence these factors have upon the decision to provide a PDPTS. It is important to establish these driving factors, as they will be applicable to other pharmacist prescribing roles and their impact upon service development could be considerable.

The work reported here was part of a larger study of PDPTS. The objectives of this part of the research were: (1) To investigate authorisation requirements for pharmacist-written discharge prescriptions, (2) to determine the prevalence of formal protocols for PDPTS within hospital pharmacy departments offering such a service, and (3) to establish key factors influencing hospitals’ decisions to initiate PDPTS.

**Methods**

Full details of the development and validation of the self-completion questionnaire have been reported elsewhere. Briefly, section A of the questionnaire inquired about general demographic data and section B inquired about different prescribing roles undertaken and, among departments not offering a PDPTS, their reasons for not providing this service. Section C inquired about the extent of PDPTS provision among those hospitals that did offer a transcription service (ie, directorates/wards covered and times the service was available), the model of service used, and their reason(s) for providing a PDPTS.

The questionnaire was distributed at the end of August 2001 to each NHS trust providing acute hospital services in the UK. It was sent to one hospital from each trust. The questionnaire was accompanied by a letter which included recognised descriptions of independent and dependent (now supplementary) prescribing and the researcher’s definition of transcribing, in order to clarify the recipient’s understanding of the different types of prescribing. The covering letter was addressed to the chief pharmacist, principal pharmacist or clinical services manager.

Data obtained from returned questionnaires were coded and analysed using the Statistical Package for the Social Sciences (SPSS) version 10.

**Results**

**General demographics**

A total of 234 hospital pharmacy departments were identified, of which 20 were used for piloting the questionnaire, leaving 214 hospitals for the main study. Eight of these hospitals were removed after it was established that they had merged with another Trust, leaving 206 hospitals eligible for the study. Of these 206 hospitals, responses were received from 135 (66%). Sixty-eight per cent of responses (n=92) were from district general hospitals, 27% (n=37) from teaching hospitals, and 4% (n=5) from tertiary referral centres.

Details of respondents have been reported elsewhere. The size of the hospitals varied, with bed numbers ranging from <100 to >1,500, and the most common being 401-600 (33%, n=44).

**Responsibility and accountability**

Thirty-six per cent of pharmacy departments (49/135) reported that they were currently offering a PDPTS. The majority of hospitals operating a PDPTS (57%, n=27) had a formal protocol for the service in place; 43% (n=20) did not have a protocol in place, although six of these hospitals reported that they were in the process of drawing one up (2=missing data).

The majority of hospitals that offered a PDPTS asked the doctor to countersign/authorise the prescription written by the pharmacist before the patient was discharged (65%, 31/48) (1=missing data). Seven hospitals reported that
they 'sometimes' asked the doctor to countersign/authorise the discharge prescription, and 10 hospitals did not ask the doctor to countersign/authorise the prescription. A small number of hospitals commented that although it was in their official policy that the doctor should always sign the prescription (and had indicated this in their questionnaire response), in practice this did not always happen.

Of the 10 pharmacy departments that did not ask the doctor to countersign the prescription, eight reported that they often asked the doctor to indicate in some other manner that they wanted the pharmacist to write the prescription and were satisfied that the current medication was suitable for the patient at discharge. Three departments used verbal authorisation, two departments asked the doctor to sign the inpatient drug chart, two departments 'sometimes' asked the doctor to sign a separate form. Two departments did not ask the doctor to indicate in any manner his/her authorisation to write the prescription.

Among the seven hospitals that 'sometimes' asked the doctor to countersign the pharmacist-written prescription, only one hospital had an alternative method of authorisation, which was to 'sometimes' ask the doctor to countersign the inpatient drug chart.

All of the hospitals were asked if the doctor indicated in any other manner that he/she gave authorisation for certain drugs to be prescribed by the pharmacist (Table 1) (1 = missing data). The most common method used for indicating which drugs the patient was to be discharged upon was verbal authorisation (15%, n = 7), followed by the doctor sometimes signing the inpatient chart (13%, n = 6). The 26 reported methods of authorisation (other than countersigning) were used by 21 pharmacy departments, indicating that some departments used several different authorisation methods. The remaining 27 pharmacy departments did not use any other methods of authorisation.

**Factors that influence the provision of a PDPTS**

Pharmacists in hospitals that offered a PDPTS (n = 49) were asked their reasons for offering the service, via an open question. The results are presented in Table 2 (1 = missing data). The most common reason for implementing a PDPTS was to speed up the discharge process (73%, n = 35). The next most common reason was to improve accuracy/reduce errors (50%, n = 24). Thirty-three per cent (n = 16) stated that the service was implemented to release junior doctor time.

As reported previously,1 of the 86 departments not offering a PDPTS, 42% (n = 36) indicated that there had been discussions about pharmacist transcribing, but no decision had been made as yet. Thirty-four per cent (n = 29) indicated that there were no plans for such a development, and 22% (n = 19) said that they were currently developing such a service (2 = missing data).

The pharmacy departments that had no plans to implement a PDPTS were asked, via an open question, for their reasons for this. The results are shown in Table 3. The most frequently cited reason for not implementing a transcription service was insufficient resources (62%, n = 18), followed by development of other medicines management services in preference to pharmacist transcription of

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<table>
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<tr>
<th>Table 1</th>
<th>Methods of authorisation of pharmacist-written discharge prescriptions by the doctor (other than countersigning the prescription) (n = 48)</th>
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</thead>
<tbody>
<tr>
<td>Authorisation method</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Doctor always signs the inpatient chart</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Doctor sometimes signs the inpatient chart</td>
<td>6 (13)</td>
</tr>
<tr>
<td>Doctor signs a separate authorisation form</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Doctor authorises discharge prescription</td>
<td>3 (6)</td>
</tr>
<tr>
<td>Doctor verbally authorises the discharge prescription</td>
<td>7 (15)</td>
</tr>
<tr>
<td>Doctor writes information about discharge on the inpatient chart</td>
<td>2 (4)</td>
</tr>
<tr>
<td>No alternative authorisation method used</td>
<td>27 (56)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Table 2</th>
<th>Reasons for provision of a PDPTS (n = 48)*</th>
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</thead>
<tbody>
<tr>
<td>Reason</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Speed up the discharge process</td>
<td>35 (73)</td>
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<tr>
<td>Improve accuracy/reduce errors</td>
<td>24 (50)</td>
</tr>
<tr>
<td>Release junior doctor time</td>
<td>16 (33)</td>
</tr>
<tr>
<td>Increase efficiency in dispensing process</td>
<td>9 (19)</td>
</tr>
<tr>
<td>Cost savings relating to use of PODs</td>
<td>7 (15)</td>
</tr>
<tr>
<td>Enhance pharmacist role/job satisfaction</td>
<td>6 (13)</td>
</tr>
<tr>
<td>Improve communication with primary care</td>
<td>5 (10)</td>
</tr>
<tr>
<td>Decrease waste prescribing</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Increased counselling opportunities</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Decrease nursing workload</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Risk management</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Improve patient care</td>
<td>1 (2)</td>
</tr>
</tbody>
</table>

*Most hospitals gave more than one reason.

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<tr>
<th>Table 3</th>
<th>Reasons for not providing a PDPTS (n = 29)</th>
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<tbody>
<tr>
<td>Reason</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Insufficient resources</td>
<td>18 (62)</td>
</tr>
<tr>
<td>Other services being developed preferentially</td>
<td>7 (24)</td>
</tr>
<tr>
<td>No plans/discussion as yet about providing PDPTS</td>
<td>6 (21)</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>4 (14)</td>
</tr>
<tr>
<td>Electronic prescribing system under development, so not applicable</td>
<td>4 (14)</td>
</tr>
<tr>
<td>Viewed as an administrative role</td>
<td>2 (7)</td>
</tr>
<tr>
<td>Service would be for the doctor's benefit only</td>
<td>1 (3)</td>
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discharge prescriptions (e.g., patient’s own drugs, one-stop dispensing) (24%, n = 7). At no point were legal or clinical governance issues suggested as a reason for not providing a PDPTS.

At the end of the questionnaire, respondents were offered the opportunity to add further comments. In this section, among the hospitals that did not provide a PDPTS, a total of 24 comments were made. Eleven of these hospitals commented that they were currently considering the implementation of a PDPTS, although four hospitals also commented that this depended upon staffing/funding resources. Three hospitals also commented that there were clear benefits of a PDPTS. Only two comments suggested that there would be opposition to PDPTS implementation by medical staff:

"Despite continuous problems with delayed discharges due to TTOs not being ready, we are likely to meet resistance to pharmacists transcribing TTOs from our medical director. He is of the opinion that pharmacists should not write on prescription charts at all, but should be educating and instructing the junior doctors on how to do it."

"A pilot project run 2-3 years ago of a pharmacist writing discharge prescriptions for medical patients worried medical staff so much that they got their act together (temporarily). There were problems predicting discharge doses, eg, reducing steroid doses. The project was not continued."

As stated earlier, some hospitals were not introducing PDPTS due to other services or electronic prescribing being implemented preferentially (Table 3). Three similar comments were made in the open comments section about the potential impact of electronic prescribing on the need for PDPTS:

"This will be superseded by electronic prescribing."

Discussion

Responsibility and accountability

Although provision of a PDPTS is widespread, the results of this study indicate that there is a lack of consensus on authorisation requirements for pharmacist-written prescriptions. The Medicines Act\textsuperscript{19} does not define what a prescription is or what a hospital is. It is therefore not surprising that there is no authoritative interpretation of the legality of prescriptions written by non-medically qualified personnel.\textsuperscript{20} However, this position does not seem to be perceived as a barrier to hospitals and pharmacists when implementing a PDPTS. An advantage of situations where the precise legal position is not defined is that they do not preclude the development and testing of new ways of working.

Most hospitals reported a requirement for a pharmacist-written prescription to be countersigned by a doctor before the patient was discharged. Some respondents indicated that they ‘sometimes’ obtained a doctor’s counter-signature on their pharmacist-written discharge prescriptions. This approach is unlikely to be compliant with their protocols and raises a clinical governance issue. If there are mistakes on the prescriptions produced in this scenario, who is responsible and accountable for the overall quality of the prescription, shortcomings in care or even harm to the patient?

The hospitals operating a PDPTS without having a formal protocol in place are also not following the principles of clinical governance as they do not have an accountable, safe system in place and are not providing their employee pharmacists with formalised support.

Another perceived problem in the provision of a PDPTS is that prescribing and clinical checking roles are not separated, thus creating a risk management issue. Some hospitals have overcome this issue by swapping the prescribing and checking roles with the doctor, so that the pharmacist writes the prescription and the doctor checks and signs it.\textsuperscript{5,10} However, it could be argued that because of time constraints on the doctor, in this situation the prescription might be authorised but the clinical check might not always happen.

There is currently no legal route for non-medical professionals to write discharge prescriptions. A patient group direction (PGD) is a written direction relating to supply and administration, or just administration, of a prescription only medicine (POM) (or Pharmacy-only medicine [P] and General Sale List medicine [GSL]) to persons generally (subject to specified exclusions) and is signed by a doctor or dentist and by a pharmacist.\textsuperscript{21} PGDs cannot enable pharmacist prescribing of discharge prescriptions as the drugs and clinical situation need to be specified in the PGD.

Similarly, for a PDPTS to fit into the proposed model for supplementary prescribing, a clinical management plan would need to be written for every patient with a pharmacist-written discharge prescription. This is clearly impractical. This obstacle may mean that some hospitals will continue with their own methods of authorisation of discharge prescriptions instead of attempting to conform with the requirements of supplementary prescribing.

It is apparent that there are some unanswered legal issues surrounding PDPTS:

- It is unclear whether the process itself is transcribing or prescribing. Would a court of law take the view that a process whereby a list of medications was reviewed by a pharmacist and written on a document that was later accepted for dispensing at a pharmacy was something different from prescribing?
- Who is legally responsible for the prescriptions that are written in this scenario? Therefore, who should authorise these prescriptions?

Now that PDPTS is well established, it may be appropriate for central guidance and tailored provision of training and assessment to be provided for this specific role, as with the supplementary prescribing model.

Factors that influence the provision of a PDPTS

The most frequent reason cited for providing a PDPTS was to speed up the discharge process. Published studies provide evidence to support this reasoning.\textsuperscript{10,11,14,15,17}
The previous 'usual' system where a medical practitioner writes a patient's discharge prescription at the end of the ward round when the consultant has decided that the patient is medically fit to go home is known to lead to long waiting times for patients.  

The Department of Health's current discharge document suggests that in order to improve and speed up the discharge process, the roles of junior doctors and pharmacists in taking medication histories on admission and writing up take-home medication needs to be reviewed. It also suggests that the discharge process should be planned at the earliest opportunity. By pharmacists writing discharge prescriptions in a timely manner, the discharge process could be more efficient. If the PDPTS was combined with a 'one-stop' dispensing service the discharge processing time could be even further reduced, with both the prescription and supply of medications for discharge being managed by pharmacy.

The second most commonly cited reason for providing a PDPTS was to reduce errors on prescriptions and improve accuracy. This reason is supported by published literature and also by the Audit Commission report 'A spoonful of sugar', which noted that pharmacists are five times more accurate than doctors in writing discharge prescriptions. Prescribing by newly qualified doctors is currently under particular scrutiny as a result of changes in junior doctor training.

Extending prescribing rights to pharmacists is expected to help towards meeting the UK government's target of reducing serious medication errors by 40% by 2005. The presence of a pharmacist on clinical ward rounds has also been shown to prevent errors occurring, suggesting that pharmacists are well placed to make interventions and review medication on the ward round as part of a PDPTS.

If these systems were in place the flow of work in the dispensary would also be improved as errors would be rectified before the discharge prescription was written.

Thirty-three per cent of departments operating a PDPTS stated that one of their reasons for implementing the service was to release junior doctor time. Junior doctor time would be saved by not having to write the discharge prescriptions, and also from not having to answer their bleep to rectify errors and omissions identified by the pharmacy department. The time saved by doctors from implementing such a service has been estimated as seven hours per doctor over a three-month period, two hours per doctor per week and 45 minutes per doctor per day. Some pharmacy departments have been able to obtain funding for extra pharmacists to perform PDPTS from resources provided to reduce junior doctors' working hours. This may be an option for consideration by those hospitals that had not implemented PDPTS because of funding problems.

The main reason given for not introducing a PDPTS was lack of resources. Although insufficient pharmacist resource may be a major obstacle to PDPTS implementation, there are many ways in which departments can become more efficient in the way that they work, for example, by moving towards a pharmacist-free dispensary, and developing ward pharmacy teams of a pharmacist and technicians and assistants. This re-examination of the way that pharmacy departments work may release some pharmacist time for new roles, including prescribing.

The first two quoted verbatim comments made by questionnaire respondents illustrate potential difficulties some pharmacy departments may have in extending their role. Medical staff views on the extension of the pharmacist's role may be due to individual personalities and beliefs of the medical practitioner, who may not appreciate the level of training that pharmacists receive. This situation may improve if chief pharmacists are elevated to the equivalent of a clinical director and are members of the trust's management executive, as recommended by the Audit Commission. The chief pharmacist will then be in a stronger position to develop changes in pharmacist's practice. The implementation of the government plans for pharmacists to become supplementary prescribers should also lead to positive changes in opinion.

When electronic prescribing is fully implemented, there will still be a role for the pharmacist to decide upon the appropriateness of treatment on discharge and to input the discharge prescription onto the computer. Pharmacists are already using electronic prescribing systems in this manner, and have become more integrated into the health care team. Therefore, the introduction of electronic prescribing should not be seen as the end of the involvement of pharmacists in the discharge process, which was inferred in the third verbatim comment reported.

Conclusion

This study shows that interpretation of requirements for medical authorisation of pharmacist-written prescriptions is variable. Furthermore, a substantial number of hospitals with a PDPTS had no formal protocol for the service. However, legal and clinical governance issues were not cited as barriers to PDPTS by those hospitals that did not have the service.

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