The role of hospital pharmacists in continuity of care

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Communicating with patients, carers and health and social care professionals about medicines is a Europe-wide challenge. This is partly due to demographics (more frail elderly people) but also to developments in treatment. How are pharmacy teams currently contributing to patient safety in this respect?

As the range and complexities of medicines increase, so do the challenges of taking/using them as intended by the prescriber both for patients and for the healthcare professionals and social care staff who support them. Failures in communication when a patient moves from one care setting to another and/or when he/she has a new condition diagnosed will inevitably result in non-optimal treatment. Communicating with all those who need to know can be time consuming and consistent transfer of information is often not straightforward. For example, the necessary IT links may not exist across interfaces of care.

Obtaining the correct information about current prescribed medicines, as well as those bought by the patient, presents a challenge on admission to hospital. Admission as an emergency may result in the patient coming into Accident and Emergency with no medicines and he/she may be too ill or confused to discuss his/her medicines. In the absence of linked IT systems and outside of general practice/community pharmacy hours, it may be impossible to get timely accurate information. Literature reviews have shown unintentional variances of 30-70% between the medicines patients were taking before admission and what was prescribed on admission.

Once in hospital there may be many changes to a patient's medicines in response to, e.g. a new diagnosis, infection and/or symptom control. The unfamiliar hospital routine and the effects of the illness may make it difficult for many patients to understand and remember changes in their medication. In addition administration of medicines by nursing staff may deskill for example older people, so that they lose their independence and may not have the same level of ability to care for themselves as they did before admission.

Some patients may need to be assessed for their understanding of their medicines and their ability to manage them before they are discharged home. Standard questions are required to assess the need for support. Many local ways of checking have been developed and implemented however there is a need to have a more standardised set of questions to underpin consistency of care. Staff members need to work closely with other professionals involved with discharge before vulnerable patients and/or those with complex treatment leave hospital so that ongoing needs for support are communicated. Ideally the pharmacy team should be key players in supporting communication regarding medicines, though a nurse is often the lead worker.

The need for a handover of "pharmaceutical care" is particularly important for medicines with a narrow therapeutic range, for cytotoxic agents or for medicines that require administration by routes less familiar to healthcare staff in community settings. Communication across the hospital/community/primary care interface needs to be clear and explain the practical aspects of treatment such as obtaining further supplies of the medicines, delivery arrangements, associated equipment (syringe drivers, IV delivery sets), etc. Patients needing ongoing complex care, e.g. via an independent "home care" company, may need a contact point should a problem arise.

In some cases there will be a need to communicate with the carer(s), e.g. parents when children are involved. A vulnerable person may have been assessed as needing personal/social care and his/her care plan may include support for medicines. Good communication systems between health and social care are essential for safe delivery of these care plans.

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Further reading

1. Moving patients, moving medicines, moving safely; discharge and transfer planning-guidance is available on the Royal Pharmaceutical Society of Great Britain website www.rpsgb.org.uk/pdfs/dischtransfplanguid. pdf along with a workbook at www.rpsgb.org.uk/pdfs/dischtransfplanwbook.pdf
2. White Paper. Pharmacy in England: building on strengths-delivering the future - a vision for the future contribution of pharmacy to health and wellness www.official-documents.gov.uk/document/cm73/7341/7341.pdf
3. Technical patient safety solutions for medicines reconciliation on admission of adults to hospital: NICE www.nice.org.uk/guidance/index.jsp?action= byID&o=11897

Survey results on continuity of care

Fifteen countries responded to our survey: Belgium, Croatia, the Czech Republic, Denmark, Finland, France, Hungary, Ireland, Italy, The Netherlands, Norway, Poland, Slovenia, Sweden and Turkey. This gives a good view of current practice around a large part of Europe, so on behalf of our readers, thank you all very much. In Hungary, four people replied, giving a feel for practice in different types of hospital in that country.

Who is responsible for checking current medicines when a patient enters hospital?

Ward pharmacy is not widespread in Hungary, Norway or Turkey, but in the hospitals where there is a clinical pharmacist, this may be one of their roles. Elsewhere in these countries, once the doctor has compiled a medication list, the pharmacist can comment on similarities, interactions, absence, etc. The respondent from Denmark replied: "There is currently a project running in my hospital where a pharmacist checks the medicines on admission. This is not done generally in Denmark, due to lack of resources". In those hospitals in Ireland that have ward pharmacy services, discrepancies between the regimen prescribed in hospital and medicines brought in by the patient may be picked up at clinical review and if appropriate the pharmacist will check with the patient, family practitioner or community pharmacist. In all the other countries a doctor or nurse checks the medicines brought in by the patient.

In The Netherlands a draft guideline is in preparation nationwide concerning the responsibility of the pharmacist to provide a medication overview at each point of transfer regardless of the setting. This guideline addresses the role of each professional involved in the prescribing and dispensing of medication including that of the patient. It is expected that this guideline will be implemented in the next three years (see page 63).

Who is responsible for explaining the medicines when the patient leaves hospital?

In nearly all countries the nurse or doctor does this. In hospitals in Hungary and Turkey where ward pharmacy is practised pharmacists have the major responsibility. In some Irish hospitals and in particular circumstances pharmacists may assist the doctor in counselling on discharge medicines. Some hospitals in The Netherlands are developing this role for a pharmacy technician in preparation for their guideline. The medicines Dutch patients bring into hospital are returned to them on discharge, if there is still a need.

Slovenia described what is probably most common today: the doctor prescribes the medicines in the hospital, prepares written discharge documentation and sends it to the patient's primary care doctor and informs the patient about any medicine changes. The hospital nurse informs the patient about the use of any newly prescribed medicine at discharge. The primary care doctor takes over prescribing and the community pharmacist can give further information when dispensing the prescription, contacting the prescriber if necessary.

Is there a standard procedure for assessing any special help the patient may need to take/use their medicines?

There does not appear to be standard procedures, but the need for training with some devices is recognised; for example insulins, other drugs administered by "pens", inhaled asthma aerosols, low molecular heparins, total parenteral nutrition, and pain management systems that are prescribed for use at home. The nursing teams educate the patients in the use of the devices. Doctors or nurses also make sure the patient understands complicated dosage schedules for HIV drugs. Hospital pharmacies in The Netherlands have computerised patient medication information leaflets, which are available on paper or online. In Belgium there are regional programmes to assure the quality of discharge procedures.

How is a need for assistance communicated to a community pharmacist or nurses?

Most countries report that no formal communication system exists. Generally the pharmacy is not involved in this process. Ireland and Turkey report that in large hospitals where there is a clinical service, pharmacists may be responsible for continuing care liaison. If there is contact with the primary setting, it is generally done by the nursing staff on the ward. The doctor/nurse would have to contact the patient's family practitioner and/or the district nurses to arrange for this. The need should also be covered in the discharge letter from the hospital. The community or district nurse may also be involved by the primary care doctor.

Poland reports that the concept of "pharmaceutical care" has been enshrined in law. If the patient wishes, he/she can nominate a local community pharmacist to fulfil this role. The pharmacist will be required to give a professional service, explaining to the patient any drug-drug and drug-food interactions for medicines he/she is using, including any medicines bought by the patient without a prescription. The patient

would naturally go to this pharmacist to get any drugs prescribed by the family practitioner. However there is no communication from hospital with the nominated pharmacist. The community pharmacist can only get information from the patient.

In Sweden the physician at the hospital can contact the family practitioner and then this doctor can apply for the patient to get ApoDos (a system for delivering drugs).

Once the patient has left hospital, who is responsible for helping the patient manage his/her medicines?

France replied that no healthcare professional or team is identified as responsible for supporting patients who are vulnerable in terms of managing their medicines. However, most countries have several possible lines of support, although a pharmacist is not usually involved. Community nurses are supplemented by specialist nurses for diabetes, asthma, and Parkinson's disease (Finland) or warfarin (Sweden). In Slovenia they visit oncology, HIV, and disabled patients regularly in their homes but there are no admission avoidance teams. Poland mentions self-help and support groups for Alzheimer's disease and multiple sclerosis. Other family members of course play a part in looking after the patient.

In The Netherlands, community pharmacists work closely with the family practitioner. Hospital pharmacy has developed outpatient pharmacy services where patients are able to get their medicines after an appointment or on discharge. Patients are very satisfied with this "one stop shopping".

Who can access and is responsible for keeping/updating the medicines record?

Croatia outlined the traditional situation: family practitioners keep all community patient medical documentation. The Czech Republic reminded us that opticians and other services keep their own records separately. Belgium, Denmark, France, The Netherlands, Norway, Poland, and Slovenia clearly stated that no central system exists. In some hospitals in Hungary and Turkey the hospital pharmacy updates records and they can be accessed easily by the hospital clinical team. Turkey is promised a common medical records database for government hospitals in the near future: work is ongoing.

Electronic systems for storing and sharing health data are being planned or developed in several countries. Finland reported - all nurses and doctors can have access to patient records (but not pharmacists unless in circumstances such as a clinical trial). Patient data is held locally and poorly transmitted between different hospitals and health centres. In France an electronic patient record is at the planning stage. In The Netherlands plans for an electronic patient record and medication record are "advanced" but there are still problems with linking the systems and the "open" structure of the systems. Denmark's electronic system is promised for October 2009: medicines records will be accessible to both hospital doctors and family practitioners. The big question is whether hospital pharmacists will have access to the records. They do not have access to the current records (a forerunner to the new system). In Slovenia there is an "e-health card" and community pharmacists can view the data about the drugs prescribed on it.

Snapshot across Europe

The responses illustrate great variations in practice and in the contribution of the pharmacy teams. However, there are positive developments in many countries that have the potential to improve consistency and continuity of patient care. The principles of good pharmaceutical care apply regardless of the differences in healthcare systems between countries and sharing good practice has the potential to accelerate improving outcomes for patients.

Upgrading of e-patient data nationwide in Finland

The next four years will see a reform of the national healthcare data management system to improve the efficiency of electronic patient record use and pharmacy databases. A major part of the reform will be to improve patient and data confidentiality with new data security.

Electronic patient records are used extensively by the majority of health centres and hospitals. Some three out of four hospital districts use an electronic referral system. Electronic databases are also in increasing use in social care.

A centralised patient database will be the responsibility of KELA - Social Security and Health Insurance. Healthcare units will mainly provide the data. The electronic patient record archive will come into use in 2009. In addition, e-prescriptions will replace paper prescriptions in community pharmacies.

France tries again with a less ambitious system

An electronic file (called the pharmaceutical record) is available for community pharmacists. The community pharmacist can record up to four months' prescriptions on it. The ministry of health has set up a task force about the continuity of pharmaceutical care. It draws together community pharmacists, hospital pharmacists, and representatives from the pharmaceutical society and the ministry. Among the proposals, the extension of the pharmaceutical record to hospital pharmacists and identification of a health professional (possibly a pharmacist) to coordinate care are being discussed. This is one of several simpler initiatives being considered after unified plans for an electronic medical record were abandoned as too complex.

Ireland's ward pharmacy model

In large teaching hospitals the pharmacist counsels the patient on discharge medicines provided adequate notice is received of the patient's discharge from hospital. If changes to patients' medicines could potentially pose procurement problems in the community, the clinical pharmacist may

- annotate the inpatient prescription sheet in order to alert the medical team and nursing staff of these potential problems
- contact the community pharmacist and/or the family practitioner or the relevant pharmaceutical care provider in another institution
- if necessary provide a supply of medicines to ensure continuity of pharmaceutical care
- inform the patient.

It remains the responsibility of doctors to counsel the patients on discharge medicines but clinical pharmacists may also provide counselling.

Italy uses Local Health Units for specialist treatment

The clinical team are responsible for prescribing and administering drugs to patients in hospital. For some classes of drugs, such as antineoplastics, hospital pharmacists can check and confirm the medication. Rarely are they involved in informing patients about changes in their medicines (at this moment only a few hospitals have a pharmacist present in the ward on a daily basis). In Italy the hospital pharmacy is responsible for supplying discharge medicines (usually for 30 days). Once home, the patient is guided to the Pharmaceutical Unit of the Local Health Unit (LHU) where other hospital pharmacists are responsible for the purchase and distribution of some special therapies. The LHUs are responsible for high cost therapies, complex medicines and some oral drugs requiring continuous monitoring and follow up, prescribed by a specialist. Patients who need help with managing their medicines can be referred here. Community pharmacists remain the main source for most medicines.

The medicines record is held and updated where appropriate (hospital pharmacy, LHU Pharmacy, or hospital ward).

Dutch pharmacists seek bigger role

In The Netherlands pharmacists are legally designated caregivers for medicines. Hospital pharmacists are aware of gaps in communication and are proactively developing a guideline with other caregivers for a national system, through which they can exercise this duty of care. It is expected that implementing it will need a lot of manpower, especially pharmacy technicians. However the minister of health is supporting development of the guideline. There is growing interest from technicians to develop as pharmacy practitioners in care.

National e-patient records and e-medicines records are in the planning stage. At the moment several IT systems are in use within health care but they are not yet linked.

Hospital pharmacists seek to actively take responsibility as medication safety experts. Medication safety projects are being made available online as examples of best practice by the Dutch Society of Hospital Pharmacists, www.nvza.nl.

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