Under the National Service Framework for Older People, the document "Medicines and Older People" recognises five key interventions as important in helping older patients and their carers manage their medicines appropriately: giving prescribing advice and support, active monitoring of treatment, review of repeat prescribing systems, medication review and education and training. It is in these areas that pharmacists have the opportunity to use their expertise.

**Prescribing Advice and Support**

Increasingly, pharmacists are providing prescribing support to primary care organisations and general practices. This involves looking at treatment priorities and prescribing policies in relation to Health Improvement Programmes and other local needs. The NSF specifically mentions three conditions in older people (stroke, mental health and falls) in which pharmacists can have a valuable input.

**Monitoring Treatment**

The NSF says that improved monitoring of treatment is needed in many older people and is particularly important after a new treatment is started. It is believed that only half of the assessments of older people include medicines issues but that the single assessment process (PJ, 14 June, pp830–2) will contribute to the process of problem identification. Simple screening questions by pharmacists at the point of dispensing have been shown to identify adverse drug reactions and detect compliance issues. The NSF for older people suggests the following questions to explore the role of new medication:

- Has any new medicine been added to the prescription in the past few days?
- Has any new over-the-counter medicine been purchased in the past few days?
- Have any doses been changed in the past few days?

**Repeat Prescribing**

It is estimated that repeat prescriptions account for about 75 per cent of all prescriptions and it is clear that a review of repeat prescriptions can identify ways of rationalising medicines and reducing costs. One study found that 72 per cent of repeat drugs showed no evidence of having been reviewed by a doctor for 15 months before the study. Poor practices in repeat prescribing can impact on both drug budgets and patient care. There are a number of key problems associated with repeat medication, namely: unnecessary therapy, ineffective therapy, no or inadequate routine monitoring, inappropriate choice of therapy or dosing schedule and non-compliance.

Many patients receive inequivalent quantities of medicines each time they pick-up their repeat prescription. This results in them running out of their medicines at different times and they may reorder their entire prescription at the time the first drug runs out. Stockpiling of drugs is common when patients have differing courses of treatment or seasonally used drugs. There is also a misconception among patients that if they do not re-order all the repeat items together then one item might be lost to them forever.

Community pharmacists can advise on repeat prescribing in two ways:

- By advising on safe and appropriate repeat prescribing systems
- By reviewing some or all repeat prescriptions

The Pharmaceutical Services Negotiating Committee guide recommends that pharmacists begin to monitor repeat prescribing by initially making a note of patients who are over-ordering repeat medication over time. Another way of determining drug wastage in your area is to set up a DUMP campaign where patients are invited to return unwanted medicines to the pharmacy.
CONTINUING PROFESSIONAL DEVELOPMENT

The NSF points out that review of repeat prescribing systems can improve both quality and control of prescribing in older people. The system for ordering and producing prescriptions should ensure that requests for repeat medication result in accurate prescriptions. The system should also try to synchronise quantities and duration of treatments and have mechanisms to flag up any over- or under-ordering of regular medicines.

A repeat prescription should also ensure that regular reviews and testing are continued at the required times, for example, urea and electrolytes, liver function tests and international normalised ratio (INR). The NSF states that good repeat prescribing systems should:

- Have a written explanation of the repeat prescribing process for patients and carers
- Have dedicated practice personnel whose responsibility it is to ensure that patient recall and regular medication review takes place
- Have an agreed written practice policy on the length of medication supply on repeat prescriptions
- Have an authorisation check each time a repeat prescription is signed
- Include training for practice staff on the elements of good practice and how to spot poor patient compliance
- Include a compliance check on every repeat prescription
- Have regular house-keeping to make sure records are up to date

CONDUCTING A MEDICATION REVIEW

A key part of the NSF is making sure that the medication needs of older people are regularly reviewed. Pharmacists can discuss medicines and related issues with patients and carers and provide information and support. The NSF states that reviews should be targeted at patients known to be at high risk of medicines-related problems and should evaluate both prescribed and non-prescribed medicines. People at risk include:

- Those taking four or more medicines
- Those who have been discharged from hospital
- Those in care homes
- Those in whom medicines-related problems have been identified through routine monitoring/assessment (eg, the single assessment process and annual health checks for those over 75 years)
- Those aged over 75 years (review should be part of their annual health check)
- Those who have experienced an adverse change in health

One of the early milestones of the NSF was that all patients over 75 years should have their medication reviewed at least annually and those receiving four or more medicines should be reviewed every six months. A review of patient medication can be carried out in the GP surgery, where pharmacists can have access to the patients’ medical records, or in the pharmacy using patient medication records. Some practices run medication review clinics where patients are selected for a consultation with a clinical pharmacist.

Another way of reviewing medicines is the “brown bag scheme” where patients are asked to bring all their medicines (over-the-counter and prescribed) into the pharmacy or clinic for review. Some older people will benefit from a review of their medication in their own home if they are unable to get to the surgery or pharmacy. Moreover, implementation of intermediate care services over the next few years will enable more people to be cared for in their own homes. However, domiciliary services in the patient’s home have been piloted in a few areas and require the pharmacist to leave the pharmacy for an extended period of time. This has implications for time and resources.

Once you decide to conduct medication reviews and, ideally, you have support and funding from your primary care trust, you will need to select patients for review and consider how to implement any changes to patient medication and this will be in consultation with the patient’s GP. In addition to looking at high risk groups as listed above, patients can be selected in a number of ways such as by therapeutic area (eg, patients with type 2 diabetes or asthma) or by NSF target area (eg, patients who have had a stroke or fall).

The NSF gives clear guidance on how to set about conducting a medication review. It states that pharmacists should:

- Explain the purpose of the review and why it is important
- Compile a list of all medicines being taken — prescribed or OTC medicines, herbal and homoeopathic remedies and medicines swapped or shared between friends or family
- Compare this list with the list of what has been prescribed
- Find out if the patient (and carer) understand the purpose of the medication and if they have any misconceptions
- Apply “prescribing appropriateness indicators” (see Panel 1) to find out if the choice of therapy is appropriate for each indication
- Look for side effects
- Review any relevant monitoring tests and check if the results are up to date or if any more tests are required. For example, INR for patients taking anticoagulants, HbA1c for patients with diabetes and regular full blood counts for those taking methotrexate
- Check if there is evidence of clinical review by the GP to confirm that therapy is still required

The NSF also recommends that pharmacists should conduct a review of practical aspects of medicines use by considering the following questions:

- Is the patient experiencing any problems ordering or receiving repeat prescriptions?
- Is the patient having any trouble removing medicines from his or her containers?
- Does the patient have any problems with swallowing tablets? If so, he or she may benefit from liquid preparations or soluble tablets
- Does the patient have any difficulties reading the labels? Large print labels are available if required
- Does the patient have any problems remembering when to take medicines? If so, compliance aids can be considered
- Is the patient over-ordering medication?

There should also be a discussion with the patient (or carer) based on the following questions:

- How is the patient actually taking the medicines?
- Are there any concerns, questions or issues they want to raise?
- Does the patient understand and accept the reasons for taking their medicines and the consequences of not taking them?
- Is any support needed?

Panel 2 shows the type of questions the pharmacist could ask during a medication review, as outlined in the NSF. A number of results can follow a detailed medication review. A

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Panel 1: Indicators of Prescribing Appropriateness

Prescribing can be deemed appropriate if several factors apply. The British National Formulary should uphold the indication for which the drug is being prescribed and if the drug is thought to be of limited value, the reason for prescribing must be recorded and valid. The drug should also be inexpensive compared with alternatives from the same therapeutic class, which are just as safe and effective, and if not, a valid reason must be given for prescribing it. If available, the generic should be prescribed, unless the BNF recommends otherwise.

If a potentially hazardous drug-drug combination is prescribed, the prescriber must show knowledge of the hazards. Similarly, if the total daily dose, dosing frequency or duration of the treatment is outside the range stated in the BNF, the prescriber should give a valid reason for not following recommendations.

Finally, prescribing for hypertension must adhere to the evidence-based guidelines in the BNF.
The patient might benefit from medicines support items for example, medicines reminder charts or multi-compartment compliance aids. The diagnosis might need to be re-examined in light of the medication review or further investigations might be required, eg, creatinine levels or plasma levels of drugs with narrow therapeutic index. It is vital that the patient’s (and carer’s) views are engaged throughout the process. You might want to make recommendations to the patient or make a referral to the patient’s GP for agreement before implementing the changes. You should also agree on methods of updating the patients’ records and monitoring the clinical outcome.

Pharmacists are performing medication reviews around the United Kingdom. Brown bag schemes have been successful in Bolton and Wigan where GPs commissioned community pharmacists to review prescribed and OTC medicines. Bradford Health Authority established a scheme where community pharmacists carried out domiciliary visits to older people. The most common problems raised by patients were unrelieved symptoms (36 per cent), difficulty in remembering the dose of medicines (35 per cent) and side effects (27 per cent). Pharmacists made recommendations to the patients’ GPs about any changes that were needed. At Parkside Health, Brent, the community rehabilitation team includes a pharmacist to ensure safe, effective and appropriate use of medicines in the patient’s home. Information from medication review is shared with members of the multidisciplinary team as part of patient-centred goal planning. To find out more about these and other projects visit the Pharmacy in the Future website (www.pharmacyinthefuture.org).

**EDUCATION AND TRAINING**

The NSF points out that both patients and carers want more information about medicines. Suitable patient information sources include patient information leaflets, the Electronic Medicines Compendium, Prodigy patient leaflets and NHS Direct on-line. It is also recognised that information will need to be interpreted for patients and provided in different formats, such as audio tapes, video tapes, leaflets and in different languages.

**REFERENCES**


**RESOURCES**

- The Electronic Medicines Compendium is available at: http://emc.vhn.net
- NHS Direct on-line is available at: www.nhsdirect.nhs.uk
- Prodigy patient leaflets are available at: www.Prodigy.nhs.uk/ClinicalGuidance/PatientInformationLeaflets.asp

**Panel 2: Questions the Pharmacist Could Ask During a Medication Review**

- How long have you been taking/using this medicine?
- Is the medicine in its original container?
- What is the purpose of this medicine?
- Do you know how to take the medicine, when and how often?
- Do you have a daily routine for taking this medicine?
- Do you have any side effects from this medicine?
- Do you have any medicine allergies?
- Do you buy (or has anyone else bought for you) any non-prescription medicines from the chemist or any other shop such as a supermarket?
- Has anyone (such as a friend or neighbour) given or “lent” you any medicines, vitamins, herbal or homeopathic products to use?
- Do you use or take any other form of medicine or home remedies or products prescribed by any other source of advice?

**Evaluate**

How could your learning have been more effective? What will you do now and how will this be achieved?

**Action: Practice Points**

1. Identify patients from your patient medication records who might benefit from medication review. List 10 questions you consider essential in a medication review and put them in your own words.
2. Look at the different kinds of compliance aids that are available or browse the three electronic sources of patient information mentioned in the text (eg, the Electronic Medicines Compendium).
3. Make a note of older patients who are over-ordering repeat medication. Does the repeat prescribing system involved follow NSF characteristics of a good system?