

Management of Medicines

A resource to support
implementation of the wider
aspects of medicines management
for the National Service Frameworks
for Diabetes, Renal Services and
Long-Term Conditions

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1 Introduction

The purpose of this resource is to provide practical support for Primary Care Trusts (PCTs) and NHS Trusts to implement the medicines management aspects of the National Service Framework (NSF) for Diabetes, the NSF for Renal Services and the forthcoming NSF for Long-Term Conditions.

The NSF for Long-Term Conditions focuses on neurological conditions including epilepsy, Parkinson's Disease, multiple sclerosis and motor neurone disease. The issues it covers are, however, relevant to other long-term conditions.

This is a resource to stimulate sustainable improvement in the use of medicines and of professional skills for the care of people affected by conditions covered by the three NSFs.

Definition: *Medicines management (MM)* includes the clinical, cost-effective and safe use of medicines to ensure that patients get the maximum benefit from the medicines they need, while at the same time minimising potential harm.

Setting the scene

During the last decade, great efforts have been made to improve the quality of prescribing. But unless patients are involved in prescribing decisions and are committed to taking their medicines, all our efforts to improve the use of medicines are unlikely to succeed.

The NHS Plan laid out the main national priorities for the future NHS. National standards for key conditions and diseases are set through NSFs, which are central to improving quality of services to patients, improving health, reducing health inequalities and building services around the needs of patients. In addition, the National Institute for Clinical Excellence (NICE) provides patients, health professionals and the public with authoritative and reliable guidance on current 'best practice' for some medicines and treatment modalities.

But underlying all this is the role of the patient. People living with long-term conditions such as diabetes are frequently in the best position to understand their own needs to manage their condition and, given the necessary skills, can make a tangible impact on the disease and their quality of life. The Expert Patient Programme is an NHS-based training initiative that provides people with the opportunity to develop new skills to manage their condition.

Programmes to improve medicines' use

Many programmes within the NHS are in place or are being developed to improve the effective use of medicines, including:

- The *Medicines Partnership* programme which is working to support patients and professionals to enable patients to be more involved in decisions about their medicines.
- The Government has made substantial investments through the national *Medicines Management Services (MMS) Collaborative*, which brings together PCTs, GPs, nurses, community pharmacists and other professionals to help optimise prescribing and the experiences and outcomes for each patient. The programme has many examples of how specific approaches have improved services for patients. The fourth wave of the MMS Collaborative has included elements of joint working across primary and secondary care. A hospital medicines management collaborative began in the spring of 2004. This will consist of acute hospital trust teams focusing on medicines management issues that are more specific to the hospital environment.
- *The Pharmaceutical Services Negotiating Committee* will report its findings of a national trial of community pharmacy medicines management in heart disease in summer 2004.
- The *Medicines Management Framework*, launched in 2003, applies to the use of all medicines. It promotes greater working links across local health economies and is subject to Strategic Health Authority performance management. The framework has two key components. Firstly, it is about clinical and cost-effectiveness, which is covered within the framework by a set of developmental standards. Secondly, it is about the safe and secure handling of medicines, which is incorporated within the Controls Assurance Standard for medicines management. This focuses on minimum standards and is mandatory. More information on the framework is available at:
http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4072184&chk=RuVaBK

This practical medicines management resource for the diabetes, renal and long-term conditions NSFs focuses on the wider aspects of MM and includes areas for improvement, tools to achieve improvement and a framework for action. It brings together existing guidance, published evidence and examples of innovative practice. It supports the management of long-term conditions, where people are likely to be using medicines on a life-long basis and where effective self-management is key to improved health. More specialist aspects of medicines management may be dealt with as part of the individual NSFs. For example, a resource has been developed for the specific aspects of medicines management for the NSF for Renal Services and can be found at:

www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/Renal/fs/en

The proposed new community pharmacy contractual framework, which is currently being negotiated, will also be an important driver for change and will help to ensure that pharmacists are more involved in supporting patients in using their medicines.

How this resource will help

This resource will support teams implementing the NSFs locally in the NHS by:

- signposting innovative practice and providing contacts for follow-up
- underpinning investment in medicines management by presenting available evidence on outcomes

- supporting implementation of medicines-related aspects of NSFs
- providing guidance on the contributions of professionals to provide specific aspects of care.

Its primary targets include:

- managers and clinicians in PCTs and NHS Trusts
- teams implementing the NSFs locally in the NHS
- professionals.

However, it will also be a helpful resource for:

- patient and carer groups
- patients
- non-executive members of NHS Boards.

Statement of values

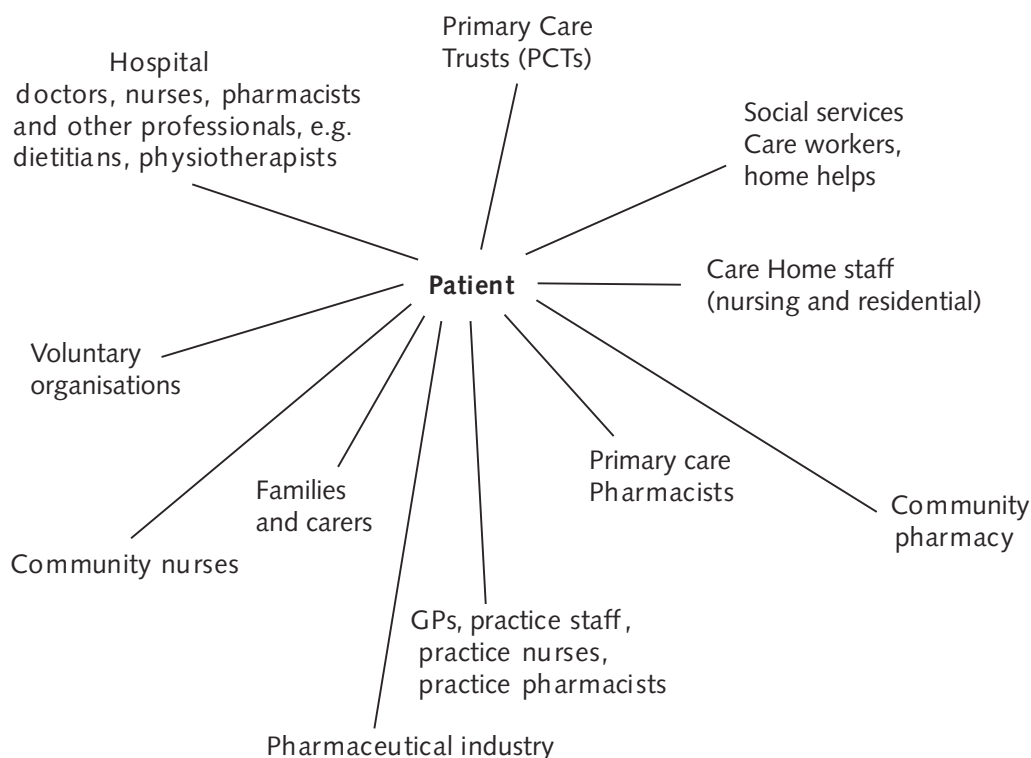
The development of this resource is underpinned by the following overarching values:

- Involving patients as partners in decisions about their medicines, supporting them to take their medicines effectively and enabling them to ask about their medicines.
- Promoting choice for patients in decisions about treatment, when and where treatment takes place, and the level of self-management of their condition.
- Recognising the role of families and carers in medicines management.
- Encouraging partnership working between patients, professionals, managers and industry to improve the use of medicines.
- Encouraging different professionals to provide support to patients about their medicines and promoting lifestyle changes to achieve the best health outcomes.
- Recognising that medicines are only one component of treatment and care within the overall management of people with long-term conditions.
- Encouraging innovation in medicines management.
- Ensuring equity of access to medicines.
- Improving access to medicines information for patients, carers and families.

Everyone's business

One of the key messages of this resource is that improving medicines management should be everyone's business. It does not fall exclusively within the purview of one profession or organisation. Effective medicines management is dependent upon teamwork and a holistic approach to care that involves patients and carers as partners. Professionals in health and social care have an important contribution to make to improve medicines management.

Figure 1. Key contributors to the management of medicines



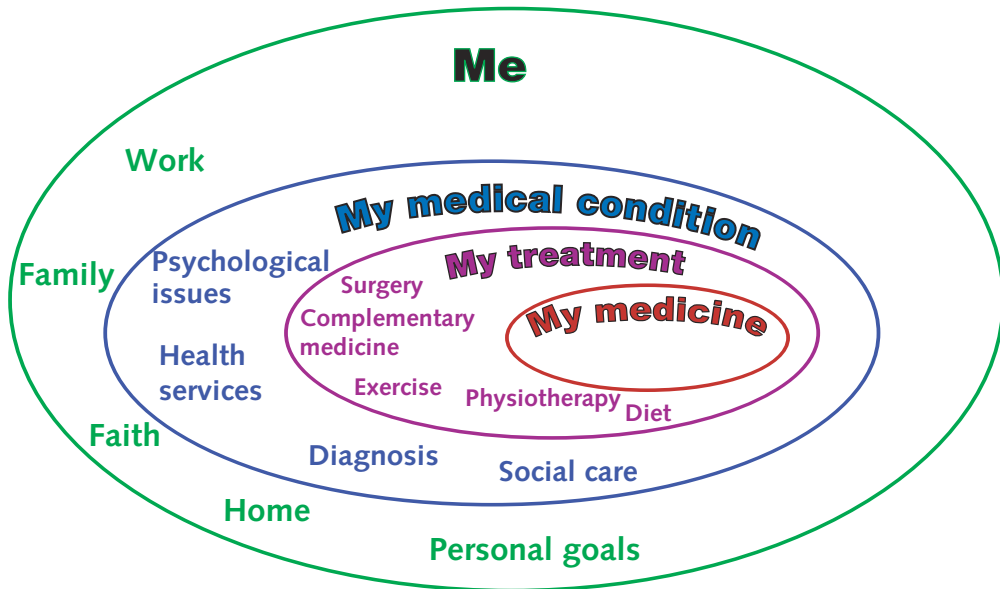
Summary of the components of medicines' management

- Involving patients in the choice of treatment, respecting their views and priorities and enabling them to take a more active role in self-management.
- Deciding whether a medicine is needed.
- Selecting appropriate treatment.
- Providing patient-centred information.
- Monitoring for benefits and safety.
- Reviewing effectiveness of treatment.
- Deciding when to stop treatment.
- Identifying under-treatment as well as over-treatment.
- Reducing medicines wastage.
- Using non-pharmacological options where possible, including health promotion advice.
- Developing patient-friendly ordering and collection systems.
- Promoting better communication between prescribers, patients, carers and other health professionals.
- Making the best use of resources – evidence-based formularies and guidelines; generic prescribing; synchronisation of quantities; medicines no longer needed; optimisation of doses.
- Identifying further areas of investment in treatments to produce improved health outcomes, for example prescribing aspirin or statins in patients at risk of coronary heart disease.
- Improving repeat prescribing systems.
- Using professionals appropriately.
- Managing demand.

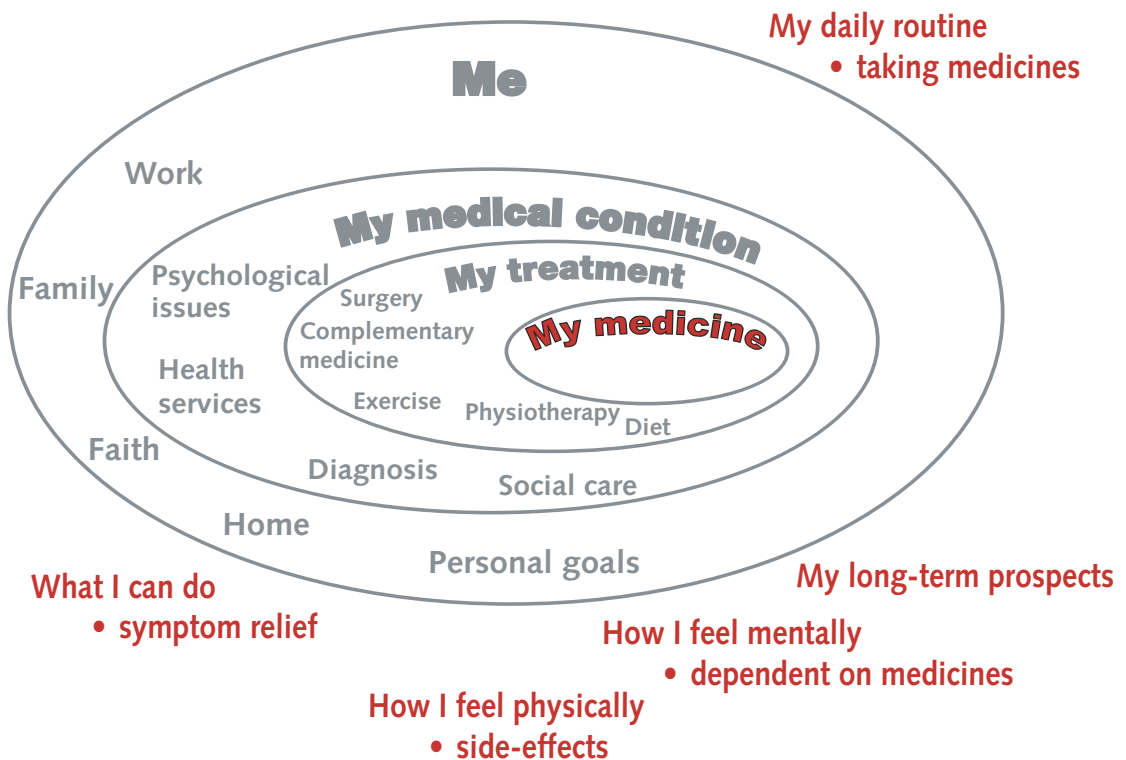
Medicines' management is only one component of the patient's care pathway and the patient's life, as Figure 2 shows.

Figure 2. Medicine-taking in context

Medicine-taking is only one aspect of people's lives...



...but has the potential for far-reaching impact.



Why medicines' management is important

Diabetes

Diabetes mellitus prevalence estimates vary but there are thought to be in the region of 1.4 million doctor-diagnosed cases of diabetes in the UK. The prevalence of diabetes is rising and is higher among certain ethnic minority groups. There is good evidence that tight control of blood glucose levels and blood pressure improves health outcomes for people with diabetes, resulting in less ill-health and death from coronary heart disease, lower incidence of renal failure and blindness, and fewer leg ulcers and limb amputations. Up to two thirds of people with Type 2 diabetes do not take their oral hypoglycaemic treatment as prescribed (Donnan et al 2002), one third do not take their tablets correctly in relation to food, and most are not aware of the side-effects of their medication (Browne et al 2000). Some 70% of patients with Type 2 diabetes also have hypertension and most will be on oral hypoglycaemics or insulin. Three or more antihypertensives may be needed to lower blood pressure to levels known to reduce ill-health and death. Furthermore, around 13% of people with diabetes have a history of ischaemic heart disease and need to be on lipid-regulating therapy and aspirin.

See <http://www.dh.gov.uk/PolicyandGuidance/HealthAndSocialCareTopics/Diabetes/fs/en>

Renal disease

The risk of renal failure rises sharply with increasing age and it is estimated that 4% of the adult population has significantly impaired renal function (GFR <60ml/min). Most of these will be asymptomatic but will be hypertensive, and many will have a mild degree of anaemia and will also be at risk of disordered calcium and phosphate metabolism. For these people, the threat to health is not progressive renal failure, but premature cardiovascular disease. Chronic disease management is primarily focused on tight blood pressure control and reducing cardiovascular risk factors.

A proportion of people with chronic kidney disease go on to develop established renal failure (ERF) where dialysis or a kidney transplant is required to sustain life. Some 31% of those reaching ERF have had no overt symptoms, and renal disease is only diagnosed at the point where dialysis or a transplant is needed.

The commonest cause of renal disease is diabetes, mostly Type 2 diabetes, accounting for 19% of new ERF patients in England, but 25-35% in the rest of the western world. The discrepancy is in part because of under-referral to nephrologists, and the impact of diabetes on renal services will continue to grow. Renal failure, mostly as a result of diabetes, is three times more common in Indo-Asians. The ethnic minority population of England is younger than the white population and the growth of renal failure treatment will be disproportionately faster in this group than in the total population.

Two methods of treatment are available for ERF: dialysis and kidney transplantation. Transplantation is limited by two factors – the availability of organs and an increasing proportion of patients starting dialysis who are frail or have advanced vascular disease and may not be healthy enough to have a transplant.

Long-term drug therapy is the norm for those with renal disease, with common therapies including those for blood pressure control, the management of calcium and anaemia, and immunosuppressants for transplantation.

Diabetes, cardiovascular disease, oesophageal reflux, constipation, insomnia and musculoskeletal pain are all more common in patients with renal failure. Consequently, some people with renal disease may be prescribed ten or more regular medicines. Doses and formulations of medicines are often changed at

hospital outpatient visits. Medication reviews have shown that there is sometimes confusion between the patients, their nephrologist, the GP and the community pharmacists about exactly which medicines patients should be taking, in which formulation and at what dose. Medicines-related problems can be a cause of hospital admission for some people with renal disease. Non-compliance with treatment is an important contributory factor in up to one in three late stage rejections of transplanted kidneys.

See <http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/Renal/fs/en>

Neurological disease

Epilepsy is the most common serious neurological disorder, affecting more than 420,000 people or one in 130 of the UK population. Around 1,000 people with epilepsy die each year in the UK. There is evidence that management of epilepsy can sometimes be sub-optimal. Drug treatment and the provision of information to people with epilepsy are areas of specific concern. Decisions about which medicines to prescribe can be difficult. All the available treatments have side-effects and can disrupt daily life, while changes to treatments may cause seizures to recur. In a review of the case histories of patients who died suddenly and unexpectedly from epilepsy, only 11% had a structured treatment review or management plan. Therapeutic management was inadequate in 20% of adults and 45% of children. Common problems were that the prescribed medicine was not appropriate for the type of seizure, that doses were too high or too low, and that there was evidence of non-adherence.

Multiple sclerosis is one of the most common diseases of the central nervous system. It is estimated to affect 80-90,000 people in the UK. It usually strikes people when they are young adults but older people may also be affected. The limbs, eyes, bladder and sexual functions may all be involved and in some the disorder is relentlessly progressive. Treatment with medicines has gained increasing importance in recent years with the development of several disease modifying agents such as beta interferon and glatiramer, and supportive treatment remains critically important with agents such as steroids for relapses and anti-muscle stiffness medicines such as baclofen or tizanidine.

Parkinson's Disease (PD) and Parkinsonism: PD affects up to 120,000 people in the UK and is a common neurodegenerative disease, most common in older people but young patients are not exempt. The rising life expectancy is likely to lead to more PD sufferers being diagnosed in future. PD, like diabetes mellitus, is not curable yet, but it is effectively treatable by a multitude of drug treatment options and input from a multi-disciplinary service. The effect of PD touches every aspect of the life of the sufferer and the carer. It can incur enormous societal costs. Drug treatment of PD is complex and involves much discussion in relation to treatment options, overseeing treatment related complications and concordance.

See <http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/LongTermConditions/fs/en>

2 Improving the Effectiveness of Medicines

Evidence indicating that improvement is needed includes:

- non-compliance with medicines prescribed;
- large quantities of prescribed medicines unused and returned to pharmacies in DUMP campaigns throughout the country;
- 6.5% of admissions to hospital attributable to adverse drug reactions, almost 80% of which are preventable;
- poor control of chronic conditions such as diabetes, hypertension, hyperlipidaemia, Parkinson's Disease and asthma despite effective medicines being available;
- unmet patient and carer needs for high quality and evidence-based information about their treatment;
- patients not being reviewed regularly and effectively to determine whether they are responding to treatment and whether treatment needs to be continued, changed or stopped;
- patients not tolerating side-effects of medicines that adversely affect quality of life.

The right medicines and tests

Evidence-based treatment

Evidence-based clinical guidelines are now available from a variety of independent sources for many chronic conditions. Their purpose is to ensure that clinicians caring for patients have an authoritative source of information to guide the management of these conditions. They aim to ensure that all patients with, for example, epilepsy or diabetes will receive a consistent level of care wherever they receive their treatment and whoever treats them, be it a doctor or other health-professional.

The National Institute of Clinical Excellence (NICE) aims to publish its appraisals for new technologies, including medicines, as close to the launch of new medicines as possible. It also produces guidelines that incorporate evidence on specific treatments into the context of the overall management of a disease or condition.

For example, in March 2004, NICE recommended that the newer drugs (for example, gabapentin, lamotrigine and vigabatrin) should be used in the management of adults with epilepsy where older agents such as carbamazepine or sodium valproate had been tried without clinical benefit. Newer agents should also be used where older drugs are unsuitable. Combination treatment should be reserved for patients who are not seizure free on monotherapy. The guidance also specified that, in women of childbearing age, the possibility of interaction with oral contraceptives and the risk of the drugs causing harm to an unborn child should be discussed and an assessment made as to the risks and benefits of treatments with individual drugs. An early appointment with a specialist is recommended after a first seizure to ensure prompt diagnosis and the start of appropriate therapy. Also advised is a regular treatment review. See Tools for details of NICE appraisals and guidance.

Appraisals of technologies other than medicines undertaken by NICE include, for example, guidance on patient education models in diabetes and on blood glucose monitoring in Type 2 diabetes.

Application of the evidence to day-to-day practice by clinicians may not always be straightforward. Not all clinicians have easy access to the most up-to-date evidence. Some clinical guidelines vary in quality and the implementation of guidelines and appraisals is not consistent.

In addition to providing guidance on the place of new technologies (including medicines) in treatment, the findings of systematic reviews of evidence sometimes raise questions about established practice, as in the example below.

Reviewing the evidence to support clinical practice – self-monitoring of blood glucose control in diabetes

A systematic review of the evidence conducted as part of the Health Technology Assessment programme concluded in 2000 that, although self-monitoring of blood glucose was *“well established in clinical practice, its optimal use has not been established”* and that *“present evidence suggests it (blood glucose testing) may not be essential for all patients”*.

The review concluded that, for Type 2 diabetes, *“there is insufficient evidence to support the self-monitoring recommendations made by professional and patient organisations”*.

(NHS Research & Development Health Technology Assessment Programme reports 2000; 4: 12. Monitoring blood glucose control in diabetes mellitus: a systematic review).

This report is an example of where reviewing available evidence can raise questions about existing practice but may cause problems where there is no definitive answer about what the new practice should be. A subsequent Medicines Resource Centre bulletin published by the National Prescribing Centre emphasised that, for monitoring to be most useful, it should form part of a wider programme of management and that patients and healthcare professionals should be clear about what they hoped to achieve by self-monitoring. Publication of this bulletin led some PCTs to introduce policies to restrict prescribing of blood glucose testing strips.

People with diabetes who had been testing their blood glucose for some years were not always provided with a clear explanation of the reason for the change. Some were concerned that reducing testing might adversely affect their diabetes control. Others believed it was a cost-cutting exercise. This example also shows the importance of communication and adequate explanation when a change in established practice is being implemented. The charity Diabetes UK is currently working on new recommendations for blood glucose monitoring.

For people to gain the maximum benefit from self-monitoring, it is essential that they know what the results mean for them personally, and this requires information, education and support.

NICE recommendations on self-monitoring for all people with Type 2 diabetes are that:

- Self-monitoring should not be considered as a stand-alone intervention.
- Self-monitoring should be taught if the need or purpose is clear and agreed with the patient.
- Self-monitoring can be used in conjunction with appropriate therapy as part of integrated self-care.

Source: Management of Type 2 diabetes – Blood glucose (Guideline G) – September 2002, NICE

Treatments that are no longer needed

Audits of unwanted medicines returned to pharmacies show that large quantities are sometimes unused by patients. The important question is why? Medicines might be stopped or their dose altered or reduced by either the prescriber or the patient. Sometimes patients may stop taking a medicine within days of starting treatment, either because they cannot tolerate the side-effects or because they believe it is not making them any better. Medicines returned to pharmacies by patients cannot be reused for other patients in the community for safety reasons. On some occasions, the GP repeat prescribing systems may not be up to date and this results in some medicines being prescribed even though the patient no longer uses them.

Why medicines are not used – the Southampton pilot

Community pharmacists in Southampton, in one of the pilot sites of the Medicines Management Collaborative, asked patients and carers about unwanted medicines that they had returned to pharmacies. Some patients returned them either because their treatment had been changed and they no longer needed them or because they had decided of their own free will to stop taking them. In many cases, their doctor was not aware that the patient had stopped taking the medicine. Where the patient has stopped taking the medicine because he/she believes the medicine is ineffective or is causing intolerable side-effects, the pharmacist offers to discuss this with the doctor. The patient is asked for permission to share the information with the doctor and 80-90% have agreed. (See also Tools – Waste reduction strategies.) This initiative demonstrates that patients welcome a discussion about their medicines with a pharmacist but may sometimes feel unable to discuss problems with their doctor who has prescribed them.

Withdrawal of anticonvulsants in epilepsy

For patients who have been free of seizures for at least two years, medicines can sometimes be withdrawn successfully if the patient wishes to do so. Individual personal factors affect the risk of relapse and prognostic tables have been developed that allow an estimate of this risk. There are some epilepsy syndromes where the withdrawal of anti-epileptic medicines may present a much higher risk of relapse, for example juvenile myoclonic epilepsy (Janz Syndrome).

Adults may be unwilling to try treatment withdrawal owing to adverse effects on their employment or driving, if the risk of having a seizure is increased.

Sources: Clinical Evidence 8; www.nelh.nhs.uk; PRODIGY, www.prodigy.nhs.uk

Treatments that need to be added

There is evidence that some patients could benefit from additional medicines. For example, 13% of people with diabetes have a history of heart disease and should be taking aspirin and a statin. Medicines management also includes identifying where under-treatment is occurring, either because a dose lower than recommended is prescribed or because a medicine with evidence of benefit is not being prescribed.

The community pharmacy medicines management study

Community pharmacists, in a national randomised controlled trial funded by the Department of Health, are reviewing medicines for people with coronary heart disease and recommending the addition of aspirin, statins and beta blockers where these could benefit the patient. Patients in the study have a structured discussion with their pharmacist about all their medicines, and about lifestyle changes that could improve their health. The pharmacist then makes the appropriate recommendation to the patient's GP using a GP referral form. A full evaluation of the study is being undertaken, including both quantitative and qualitative outcomes. The study supports implementation of the NSF for coronary heart disease and will report in summer 2004.

Contact: Helen Rhodes, Project Manager (Community Pharmacy Medicines Management study), Pharmaceutical Services Negotiating Committee. Email: Helen.Rhodes@psnc.org.uk
Project website: www.medicinesmanagement.org.uk

Managed introduction of new drugs

New treatments are regularly launched on to the market. Careful consideration is necessary of new treatments, including the evidence of effectiveness, the clinical significance of benefit, advantages over existing treatments and cost-effectiveness. Before national guidance from NICE became available, Health Authorities had to review the evidence of effectiveness of new treatments and set their own policies based on their appraisals and their priorities. This resulted in what is now commonly referred to as 'post-code' prescribing where neighbouring Health Authorities made different decisions about funding different treatments. NICE now provides the evidence of clinical and cost-effectiveness and makes recommendations on whether new treatments should be made available on the NHS.

Monitoring medicine-taking

Treatment monitoring includes how and whether medicines are being taken, any adverse effects on quality of life, and how patients respond to their treatment. For some medicines, biochemical testing is necessary. Results of these tests need to be reviewed and interpreted to determine whether any action is needed. This may include changes in the dose of the medicine prescribed – or a patient might be referred to another professional for a more detailed treatment review.

Parkinson's Disease drug treatment

An audit of drug treatment in people with Parkinson's Disease showed that on average they take at least five different medicines and some are prescribed up to 15 medicines to be taken three or four times a day. The audit showed that few patients knew why they were taking all their medicines, the doses they needed or the possible side-effects. Compliance with treatment was generally good but, even in a progressive condition with life-affecting symptoms such as Parkinson's Disease, remembering to take tablets was found to be a problem. The audit highlighted the importance of regularly reviewing treatment for patients with Parkinson's Disease.

Treatment review

Evidence suggests that treatment review in chronic disease is not undertaken regularly.

Patients with renal disease

Medication reviews by renal pharmacists for patients with renal disease at Antrim Hospital in Northern Ireland has identified several common problems. Some people who take phosphate binders, for example, are not aware of the importance of taking the binder and that it should be taken with meals. Compliance with these medicines can be a problem because of gastric upsets, the taste of the medicine or difficulty in swallowing. Some patients discontinue their medicine because they believe they do not need it any more. Some people take herbal over-the-counter treatments that interact with their prescribed medicines and their renal disease.

Following the review, the renal pharmacist provides the patient's GP and community pharmacist with the most up-to-date list of medicines being prescribed. Patients are given a medication record card with details of their medicines, current doses and what each medicine is for. The card is updated each time treatment is changed. This ensures that an up-to-date record is easily accessible to all healthcare professionals.

See also Tools – Medication review.

Lack of review in epilepsy treatment

The report of the National Clinical Audit of Epilepsy-related Death highlighted shortfalls in services, care and support for people with epilepsy (Hanna et al 2002). The audit of deaths for people with epilepsy living in the community showed there was a lack of management plans or structured treatment review in 89% of cases. Furthermore, there was no record of treatment monitoring in the two years prior to death in 41% of patients. Therapeutic management was found to be inadequate in 20% of adults and 45% of children. The prescribed medicines were inappropriate in 20% of adults. In some cases, the medicine was inappropriate to treat the type of seizure; in others, doses were too high or too low. There were documented problems with adherence to treatment in 14% of adults and the audit found little recorded evidence of discussion of benefits and risks of treatment with medicines. The findings have been used to develop an Epilepsy Action Plan.

Report: www.sudep.org; Action plan: <http://www.publications.dh.gov.uk/cmo/epilepsy/intro.htm>

Patients' experience

In *Room for Review*, published by the Task Force on Medicines Partnership and National Collaborative Medicines Management Services Programme 2002, it was identified that “while there were some patients who had experience of regular medication review, few people reported being asked about their medicines by their doctor or by another health professional”. Overall, the research showed that “many people are prepared to take a more active part in the management of their own medicines, but lack an opportunity to review medication with a health professional that listens to their experiences and takes their views and preferences into account”.

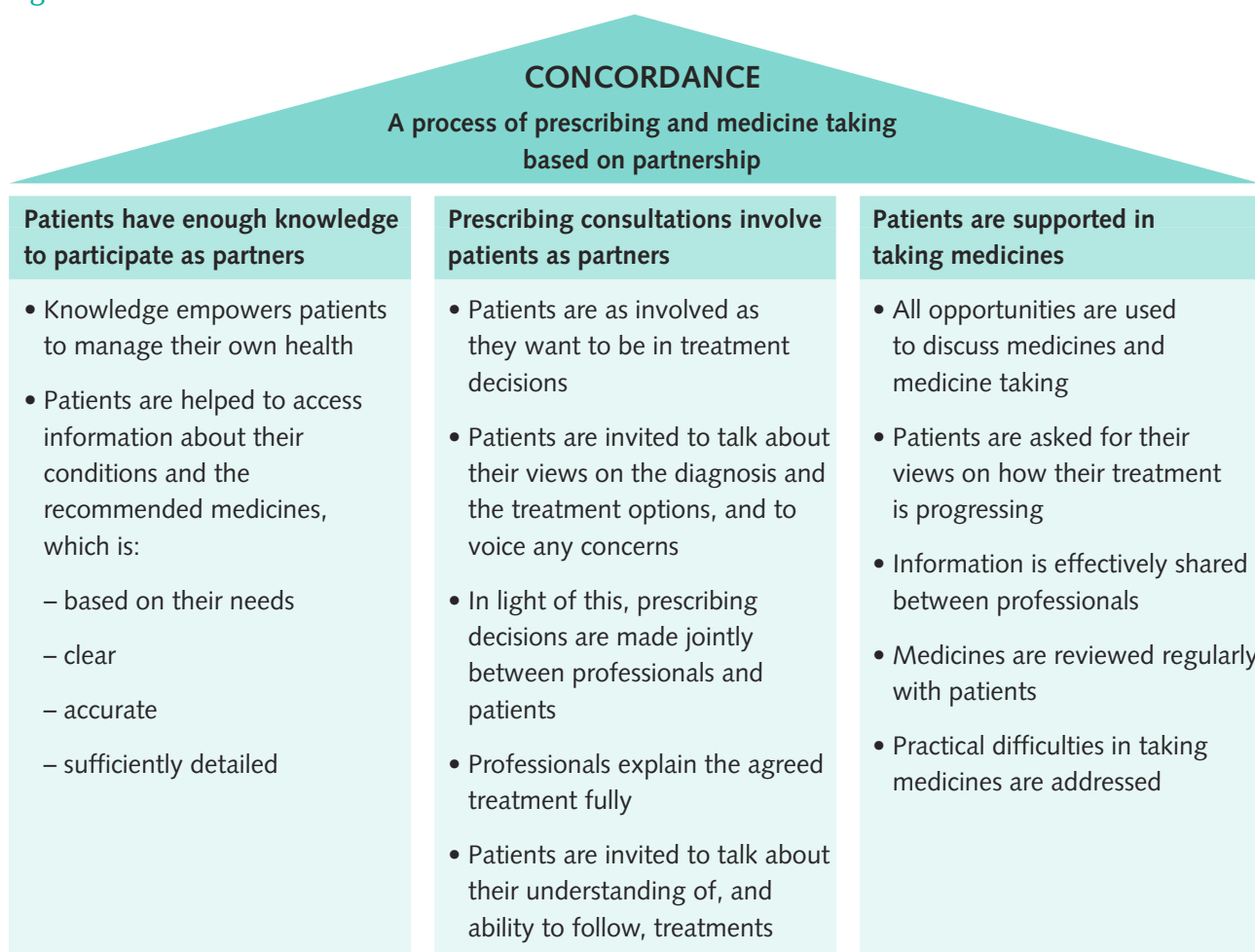
Concordance

“Doctors feel it is their duty to get people to take their medication. I prefer the patient to have the choice. A good doctor will support the choice the patient makes. Some doctors say if you don’t take the medication, I don’t want to see you.”
 (Woman aged 40 with epilepsy) Levenson, R. for the Task Force on Medicines Partnership

Concordance describes a partnership approach to medicine prescribing and taking. It is different from ‘compliance’, which describes the patient’s medicine taking in relation to the prescriber’s instructions. Concordance recognises that people make their own decisions about whether or not to take a prescribed treatment and acknowledges that a well-informed patient may decide to decline treatment after learning about the relative benefits and risks.

Patients who have been involved in making a decision about their treatment are more likely to be committed to taking their medicine. Evidence shows that many patients wish to have more involvement than they currently do (Building on the Best 2003; Coulter 2002). Patients should be given a choice about whether they want to be involved in their treatment decisions.

Figure 3. What is concordance?



Medicines Partnership – From Compliance to Concordance

Evidence-based medicine and patient choice

Health professionals sometimes assume that, if patients decide not to take a medicine, it must be because they are uninformed. But well-informed patients sometimes decide, on the basis of their personal risk-benefit considerations, not to accept treatment. This can create a conflict between evidence-based medicine and patient choice. Health professionals may feel an ethical obligation to insist on treatment. Concordance enables these discussions to be more overt. If, after receiving the relevant information, the patient declines treatment, this can be recorded as ‘informed dissent’ in the patient’s notes.

Self-management

Self-management has been defined as *“the individual’s ability to manage the symptoms, treatment, physical and psychosocial consequences and lifestyle changes inherent in living with a chronic condition”*. (Barlow 2002)

Evidence shows that self-management of chronic conditions leads to improved psychological well-being and reduced levels of pain and depression.

Self-monitoring and adjustment of treatment dose is, for those patients who want to be involved, an important part of feeling ‘in control’ of their condition. Patients on anticoagulants, in a recent development, have been taught to measure their INR (International Normalised Ratio – a measure of how long it takes the blood to clot) and adjust the dose based on the INR results. There is increasing evidence that measurements taken by patients are as accurate as those taken by health professionals. The benefits to patients are, increased convenience (no need to attend hospital anticoagulant clinics, for example) and greater empowerment to manage their own condition.

Patients as teachers

National and local initiatives are under way to increase patients’ involvement as peer teachers of self-management of chronic conditions for other patients. The NHS Expert Patient Programme involves lay-led training courses in self-management for people with chronic conditions. Set up in April 2002, it is based on research from the USA and UK over the last two decades showing that people living with chronic illnesses are often in the best position to know what they need to manage their own condition. Provided with the necessary self-management skills, they can make a tangible impact on their disease and quality of life more generally.

The course builds on the Chronic Disease Self-Management System developed in the USA, with six weekly sessions of 2.5 hours. Each week, two volunteer tutors lead 8–16 participants through topics such as breaking the symptom cycle, healthy eating, exercise, communication, medication and pain management. All course tutors themselves have a chronic illness.

What is an 'expert patient'?

Expert patients:

- feel confident and in control of their lives;
- aim to manage their condition and its treatment in partnership with health professionals;
- communicate effectively with health professionals and are willing to share responsibility for their treatment;
- are realistic about the impact of their disease on themselves and their family;
- use their skills and knowledge to lead full lives.

Source: 6. http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4006801&chk=UQCoh9

The purpose of patient self-management programmes is to develop the confidence and motivation of patients to use their own skills, information and the professional services, to which they have access, to take effective control of their life with a chronic condition. The Expert Patient Programme course is generic rather than specific to a particular condition. There are plans to make disease-specific modules on asthma, coronary heart disease and diabetes available through the programme. There are also other initiatives that focus on specific conditions, for example the National Society for Epilepsy's Living Well programme.

"The doctors and nurses admit that we know more than they do, as we get used to the disease long-term." (Man aged 36 with kidney disease) Levenson, R. for the Task Force on Medicines Partnership

Information for patients

"A medical overview of my present condition in simple terms with a clear idea of the clinical agenda and drug menu would help." Audit Commission survey of people with diabetes

"Provision of information about epilepsy and its treatment was perceived to be poor, particularly among the elderly." National survey of 2,394 patients taking antiepileptic drugs for epilepsy (Poole et al 2000)

"Coping hasn't always been easy. I've had periods of uncontrolled seizures, medication problems, received conflicting advice on contraception, pregnancy, breastfeeding." (Woman aged 45 with epilepsy) Epilepsy Mine

Patients and carers need different information about prescribed medicines:

- What the medicine is for and what it does.
- How to use it.
- Dos and Don'ts.
- Side-effects and what to do about them.
- How to tell if the medicine is working.
- Information about the disease or condition.

Basic information about the medicine is provided by the manufacturer in the Patient Information Leaflet (PIL). Research has shown that PILs contain some useful information but whether they meet patients' needs is debatable. Clarity, leaflet design and the readability of smaller type sizes could be improved. (Consumers' Association 2003)

A working group has been set up by the Committee on Safety of Medicines to improve the quality of PILs supplied with medicines. Membership of the group is wide and includes representation from professional, lay, patient, industry and academic backgrounds. Key areas for initial work include risk communication and user testing. An initial report will be available by the end of 2004.

Written information should be supported by verbal information by health and social care professionals.

Written information about medicines is not always available in a language that patients can understand. The requirements of patients who do not read English need to be better met.

Research shows a gap between patients' priorities for information about medicines and health professionals' perceptions of what information patients should be given. Information on side-effects is a high priority for patients.

"There is not enough information, especially about side-effects. You are more likely to take the medication if you know the pros and cons." (Man aged 36 with kidney disease) Levenson, R. for the Task Force on Medicines Partnership

The language used for communicating risk is, however, open to misinterpretation. There is evidence that patients tend to overestimate the level of risk. A survey of 200 members of the public showed the large gap between the public's understanding of terms such as 'very common', 'uncommon' and 'rare' and their EU definitions (Berry et al 2002).

Public and statutory definitions of the frequency of side-effects

	EU definition	Participants' definition
Very common	>10%	65%
Common	1-10%	45%
Uncommon	0.1-1.0%	18%
Rare	0.01-0.1%	8%
Very rare	<0.01%	4%

Source: Berry DC, Knapp P, Raynor DK. Lancet 2002; 359: 853-4

These findings underline the importance of a discussion between health professionals, clinicians and patients about the risks of medicines.

"I like the latest leaflets that say how many in a thousand get the side-effects. This took me a while to understand. But the fact that a symptom is common is reassuring." (Woman, aged 40 prescribed HRT) Levenson, R. for the Task Force on Medicines Partnership

It is much more difficult for patients and carers to get information about medicines that are prescribed 'off label'. This is where a medicine is licensed for certain indications but is being prescribed for a different indication or for a person whose age group is not covered by the medicine's Marketing Authorisation (licence). Off-label prescribing (common for children) presents particular challenges because the manufacturer's PIL can only refer to licensed indications.

Off-label prescribing in diabetic neuropathy

People with diabetes who suffer from neuropathy may be prescribed amitriptyline (an unlicensed indication), a medicine normally prescribed for treating depression (a licensed indication). Diabetes UK receives calls from people who have been prescribed amitriptyline for neuropathy, have read the PIL and telephone the helpline to ask why their doctor has prescribed them an antidepressant when they are not depressed. The manufacturer's PIL does not include any information on neuropathy because it is not a licensed indication. However, prescribing of antidepressants for diabetic neuropathy is accepted practice and patients need to be reassured when these medicines are prescribed or dispensed for them.

Doctors, nurses and pharmacists all have a role in ensuring that patients and carers have sufficient information about unlicensed medicines or those prescribed for off-label indications. Pharmacists could play a particularly valuable role in reassuring patients when handing the medicines to them. Community pharmacists currently do not have access to the diagnosis and this can sometimes limit the advice they can give to patients. The NHS National Programme for IT is currently considering the level of access that pharmacists can have to patient records.

Support for patients in medicine-taking

Some patients need practical support to overcome problems such as forgetting to take their medicines, not being sure which medicines to take when, and difficulties getting tablets out of strip packaging or bottles with child resistant closures. Such problems can threaten the patient's independence and may result in admission to a care home. Patients should be assessed to ensure that they can take and use medicines effectively and safely. The Single Assessment Process for older people now includes a set of four statements to identify medicines related problems.

1. I need help getting a regular supply of my medicines.
2. Sometimes I do not take all my medicines the way my doctor wants me to.
3. I can swallow and use all my medicines and get all of them out of their containers.
4. I think my medicines could work better (including medicines bought over the counter).

Following an assessment of patients' specific needs, a plan can be put in place to support them.

3 Safety

Medication errors

Medication errors may occur at any stage from diagnosis to use of the medicine. At the prescribing stage, examples where errors can happen include selecting the wrong drug or dosage from the drop-down drug list on the surgery prescribing support IT system, or using abbreviations and confusing medicines with similar names. Errors can also occur when medicines are dispensed. For example, labels may be inadvertently transposed when more than one medicine is being dispensed. Errors can also occur if patients are taking several medicines packaged similarly or when dosage instructions say 'as directed' and they cannot remember the dose prescribed for them.

Building a safer NHS for patients – improving medication safety

The Chief Pharmaceutical Officer's report on Improving Medication Safety (Department of Health 2004) contains a series of recommendations for the NHS.

This report explores the causes and frequency of medication errors, highlights drugs and clinical settings that carry particular risks, and identifies models of good practice to reduce risks. The report draws on experience and good practice in the NHS and worldwide to describe a range of measures that will reduce the risk of medication errors. It provides guidance for health professionals and NHS organisations in a number of areas:

- In the medication process generally – improved systems for prescribing, dispensing and administering medicines.
- In specific patient groups where the risks are higher – children, people with allergies, and seriously ill patients.
- With specific 'high risk' medicines – anaesthetics, cancer chemotherapy, anticoagulants, intravenous infusions, methotrexate, opiate analgesics, and potassium.
- In organisations and the healthcare environment – better use of information technology, improved labelling and packaging, improved communications at the interface between healthcare settings, and better education and training.

See http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4071443&chk=PH2sST

The role of the healthcare system

The National Reporting and Learning System set up by the National Patient Safety Agency (NPSA) will collect and analyse incidents and other patient safety information and provide feedback to healthcare organisations, healthcare professionals, and patients/carers to promote a learning and risk reduction culture. The NPSA is also developing a 'Safe Medication Pathway' (see below) to identify where potential medication safety incidents may occur.

Safe medication pathway

- a) Accurate and timely diagnosis.
- b) Treatment decision based upon current best evidence in agreement with the patient.
- c) Prescribing decision and prescription generation completed accurately, and where appropriate reviewed at regular intervals. This includes the review of any necessary clinical monitoring.
- d) Accurate dispensing and supply.
- e) Accurate administration using the correct technique.

Source: National Patient Safety Agency 2003

The role of healthcare users

Greater involvement of patients and carers in the decisions about their medicines and better access to information can contribute to the safer use of medicines.

Patients as partners in medicines safety

According to Shaw, J. (2003) Medicines Partnership Centre, involving patients as partners in decisions about their medicines and in medicines management acts as a safeguard against medication errors in a number of ways, including:

- Informed agreement about medicines, where risks and benefits are understood, reduces the possibility of patients using their medicines in potentially dangerous ways, for example by varying their dose without the knowledge of their health professional or by taking 'drug holidays'.
- Patients who understand their own medicines are better placed to identify and prevent prescribing, dispensing or administration errors. For example, vigilant parents have prevented accidental overdosing with insulin when their children are admitted to hospital.
- Patients who have several medical conditions and are treated by a range of specialists in different health settings run the risk of being prescribed medicines that can interact. Communication between specialists about what is being prescribed is essential to help reduce the possibility of adverse interactions between treatments. A comprehensive electronic patient record accessible from different locations would be the ideal solution. Until this happens, the best safeguard is for patients themselves to have a clear understanding of all the medicines they are taking and for what.
- In a concordant relationship, where patients feel able to be open about their medicine-taking behaviour, over-prescribing is less likely. This is because prescribers have a more realistic picture of the medicine patients are actually taking and are less likely to add a medicine or increase the dose in the mistaken belief that the current prescribed amount is insufficient to produce the required clinical effect. An example is in the treatment of high blood pressure.
- A thorough, concordant discussion of medicines is more likely to include over-the-counter and complementary remedies, some of which can cause potentially dangerous interactions with prescribed medicines such as aspirin and warfarin.

Encouraging patients to ask more questions about their treatment could contribute to improving safety.

The National Patient Safety Agency has produced a list of five actions that patients can take to improve safety:

- Speak up if you have any questions or concerns.
- Keep a list of all the medicines you take.
- Make sure you get the results of any test or procedure – ask what they mean for your care.
- Talk to your doctor and healthcare team about your opinions if you need hospital care.
- Make sure you know what will happen if you need surgery.

More information can be found at www.npsa.nhs.uk

Medicines of 'high risk'

All medicines have benefits and risks. An analysis of the risk/benefit ratio needs to be carried out to determine the level of benefit the patient may experience from the use of medicines for potentially serious conditions where the medicines have a relatively high adverse effect profile. Many of these medicines require specific monitoring (for example, methotrexate and warfarin) and individual patient dose titration.

These medicines are often, but not always, initiated by specialists, usually in the hospital setting, and may be the subject of shared care guidelines for transfer of prescribing to the GP or other prescribers.

The decision about who should prescribe and monitor treatment should be made in the best interests of the patient. It may be decided that it would be better for the patient to have such medicines prescribed by the GP who provides the rest of the care. It may also be more convenient for patients to go to their GP to get their medicines prescribed and have them dispensed in the community near their home. Some patients may still need to attend the hospital for some tests. In some instances, support from specialist nurses, pharmacists and other professionals may not be available in primary care. Arrangements for prescribing and dispensing medicines therefore need to take these factors into account.

The development of shared care guidelines between primary, secondary and tertiary care helps to ensure that patients get their medicines from the environment that suits their needs most. These guidelines will vary between different localities and, by definition, feature more than one prescriber. One model is that the specialist initiates treatment and the GP monitors it, adjusting the dose as needed. Easy access to a specialist when problems are encountered by the GP should be an integral part of the shared care guidelines. It is important that there is input from both primary and secondary care at the very early stages of the development of shared care guidelines to get commitment and ownership from all parties. A sample checklist (this one is from East Surrey Area Prescribing Committee 2001) for GPs asked to prescribe under this type of shared care agreement is:

- Is the patient's condition stable?
- Can you monitor treatment and adjust the dose accordingly?
- Have written guidelines for the management of the patient's condition been received?
- Are these guidelines adequate?
- Are you able to share clinical responsibility with the consultant?

The GP must be able to answer 'yes' to all questions before prescribing.

Another model is where the GP agrees to prescribe the medicine but where dosage adjustment remains the responsibility of the specialist.

Although GP prescribing might be more convenient for patients, the view of some GPs is that such an arrangement does not reflect the spirit of shared care because the GP is not involved in most of the decisions about treatment. In such situations, it may be more appropriate for the specialist to continue prescribing.

Conducting monitoring tests

Involving patients in monitoring key clinical parameters can improve safety. It is achieved by ensuring they know why the test is being done, the expected range of results, what their own results mean, and the impact of these results on their own condition. Patients who know when and why tests are due will help to ensure they are carried out and the results acted upon. Patient organisations are making information available about the expected results of routine tests and the range within which a 'normal' result would lie.

"It would be helpful to have literature on blood pressure and what the figures mean. I am often told numbers, but don't know if they're low or high." Audit Commission survey of people with diabetes

Know your numbers

A survey of National Kidney Federation members showed that almost half had never heard of national targets for 'numbers', one fifth had never discussed haemoglobin or any other 'numbers' with doctors and almost 90% said they would like printed information about the numbers. The National Kidney Federation has produced a card 'Know Your Numbers', which involves patients in monitoring their own treatment. The card shows recommended levels for haemoglobin, calcium, phosphate, blood pressure and other biochemical markers.

The card can be downloaded and printed from
<http://www.kidney.org.uk/Medical-Info/other/Zcard.pdf>

Side-effects

Side-effects of medicines can adversely affect the patient's quality of life and range from mild and uncomfortable to life-threatening. Patients need information about what common – or rare, but important – side-effects might occur and should be asked regularly about any adverse effects they may be experiencing.

Adverse drug reactions

The UK has a national reporting system for adverse drug reactions (ADRs) operated by the Medicines and Healthcare products Regulatory Agency (MHRA). This Yellow Card Scheme now includes doctors, pharmacists and nurses. The reporting of ADRs is fundamental to understanding the risk/benefit profile of a medicine once it is being used in large numbers of people. Reporting by health professionals is well established but under-reporting is a longstanding problem. Local medicines management strategies can encourage ADR reporting by both professionals and patients.

NHS Direct has piloted a service for patients to report suspected ADRs. Initially run from the South East London call centre in Beckenham, the service will use the MHRA's electronic ADR reporting card to submit reports directly to the MHRA for assessment. The intention is to make the service available throughout England. NHS Direct offers advice about what action the patient needs to take in relation to the side-effect as well as completing the Electronic Yellow Card for the MHRA. There will be further developments in the involvement of patients in reporting ADRs during 2004. Contact: Ash Pandya, NHS Direct South East London, email: ash.pandya@nelon.nhsdirect.nhs.uk

Drug interactions

Interactions between prescribed medicines, over-the-counter medicines and complementary treatments are an important consideration of medicines management. Some of these interactions could cause serious harm. They are particularly important when they involve medicines of 'high risk' where small changes in the level of a drug in the body may have disproportionate clinical effects. Some medicines will also interact with foods. Grapefruit juice, for example, can affect the handling by the body of drugs such as ciclosporin and carbamazepine. The concentrations of the antiepileptic drugs carbamazepine and phenytoin may be reduced when the herbal treatment St John's Wort is taken at the same time. It is important that patients have information about these possible interactions.

When medicines are dispensed in the community, the pharmacist's computer software identifies potential interactions and alerts the pharmacist, who can contact the prescriber. This works well where patients use the same community pharmacy for all prescriptions.

4 Joined-up Care

Primary and secondary care

Effective communication and information-sharing between primary and secondary care remains an area of concern. Systems need to be developed to improve communication between the two sectors. There are many examples where patients have experienced difficulty in obtaining their medicines easily because of lack of effective communication between primary and secondary care. There are also many examples of innovative practice where primary and secondary care clinicians are working together to improve patient care.

“Few people with epilepsy believed that their care was shared between hospital and GP. The shared care model is not operating effectively.” National survey of 4,620 people with epilepsy. (Poole et al 2000)

“I had my last (hospital) clinic visit before Christmas when a change to my medication was recommended. It is now late February and the change has not yet been implemented. I often get invited for check-ups at the GP’s surgery within a week or two of the hospital clinic, neither party being aware of the other until I turn up to get blood samples taken.” Audit Commission survey of people with diabetes

Steps should be taken to ensure that patients do not experience the kind of problems highlighted when going from one sector of care to the other. Where the hospital decides to initiate a new medicine at an outpatient clinic, it may be appropriate to provide the initial supply. A letter to the GP informing him/her and asking for treatment to be continued should be sent as soon as possible. Once patients have started taking the new medicine, they will know when they need to visit their GP for further supplies – and it is more likely that they will continue to do so at the appropriate times.

The period immediately after discharge from hospital is recognised as one where unintentional changes in drug therapy often occur, either because the GP decides to change treatment or because the patient decides to stop treatment. Reasons include the hospital letter not reaching the GP practice before the next prescription is due. In some circumstances, communication from the hospital does not specify the reasons for treatment changes or whether new treatments started during the hospital admission, need to be continued or stopped.

The MM collaborative which has now been extended to hospitals will be looking at ways to improve the use of medicines across the primary/secondary interface.

Improvements can be made by:

- a review of medicines at the time of discharge, ideally by the doctor, pharmacist or nurse;
- ensuring that, before discharge, patients and carers know which medicines and doses have been changed and the reasons for the changes;
- using a discharge medication form which can be shared with the GP;
- sending a copy of the discharge medication information to the patient's usual community pharmacy (Duggan et al 1998);
- ensuring that all discharge medication letters are reviewed by a doctor, pharmacist or nurse before any medicines are added or changed on the practice computer (Randles 1999).

Practice-based care teams and community pharmacists

Community pharmacists and their staff see patients and carers regularly. This contact happens largely when repeat prescriptions are dispensed, but also when patients and carers seek advice on health-related matters such as treatment of minor ailments. Pharmacists and their staff have a good understanding of which medicines patients are taking. This puts them in a good position to make a greater contribution to monitoring how medicines are being used and to give advice. However, they usually practise in premises separate from GP surgeries and do not have access to information about all the medicines that may have been prescribed. The consultation with patients on sharing health information via the NHS care record announced in the Department of Health Vision for Pharmacy is an important step forward in improving communication between community pharmacists and GPs.

Where pharmacists have had access to a patient's record, either by working in a GP practice or remotely, they have helped to resolve problems by suggesting changes to treatment.

Involving patients, carers and healthcare staff

A number of practical ways have been tested to increase patient involvement in consultations with clinicians. Simple 'patient agenda' forms can be used before the consultation so the patient can make a list of the concerns to be raised (see Tools – Patient involvement). Providing the patient with a copy of the letter sent to the GP can help to ensure the intended medicines are prescribed in primary care.

Copying letters to patients

The NHS Plan made a commitment that patients should receive a copy of clinicians' letters. Good practice guidance on copying letters to patients includes a draft template for outpatient consultant letters to GPs and includes 'Medication advised/prescribed and for how long'. The guidance also includes a draft template for GP referral to hospital outpatient departments, including current medication and history of allergies.

See <http://www.dh.gov.uk/assetRoot/04/08/60/54/04086054.pdf>

The website includes a number of reports of GPs' experiences of implementing 'Copying letters to patients' and of the pilot projects conducted, including 'Copying patient letters to non-English speakers'.

See <http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/PatientAndPublicInvolvement/CopyingLettersToPatients/fs/en>

Education and training

Training enables patients, carers, and health and social care professionals to:

- raise awareness of medicines management and understand that it is wider than prescribing;
- enhance professionals' and patients' skills to achieve more concordant consultations;
- enable effective use of available tools to improve medicine taking.

Health professionals

Health professionals have different skills and knowledge relating to medicines management. Some will already be experts in many areas while others may need to become more knowledgeable or skilled in some aspects. The framework below can be used by health professionals to assess their knowledge and skills.

- Concordant consultation skills.
- Communication of risks and benefits of treatment.
- Physical examination skills.
- Knowledge of medicines used in treatment.
- Knowledge of side-effects.
- Knowledge of non-drug approaches.
- Monitoring treatment with medicines.
- Reviewing treatment with medicines.
- Analysis and audit of prescribing.

The involvement of patients in the training of health professionals can help to enhance clinicians' understanding of patients' perspectives of medicine taking.

Patients

There is evidence that patients could benefit from more education about their condition and treatment. A review of research on the information and counselling needs of people with epilepsy, for example, found "unmet needs for personal and general information about epilepsy which may include individual or group education and counselling" (Couldridge et al 2001). Patients expressed a need for more general information and also for more on what it means for them as individuals.

Education and training for patients can include face-to-face sessions (one-to-one or in groups) as well as other methods such as internet, video, audio and paper.

See Tools – Education and training for information on training programmes and case studies.

5 Dispensing Medicines

Figure 4. Repeat prescriptions – improving the patient’s journey

Sheila has diabetes and has four medicines on her repeat prescription.

What happens now	Short-term improvements	The future
<p>Day 1 Sheila has to give 48 hours’ notice to the surgery that she needs another prescription. To do this she has either to post her prescription request or visit the surgery to place the order.</p> <p>Day 3 Sheila either visits the surgery to collect the prescription or waits another day for it to be posted to her.</p> <p>Day 3 Sheila takes the prescription to the pharmacy to be dispensed. If the pharmacy has all her medicines in stock, her journey ends here. Otherwise she has to call back on the next day.</p> <p>Sometimes Sheila has to go through this whole process more than once each month if the quantities of medicine on the prescription mean that she runs out of one before the others.</p>	<p>The surgery can adjust the quantities of medicines on Sheila’s prescription so that they are due to run out at the same time. Sheila just has to collect one prescription each month.</p> <p>Sheila’s community pharmacist collects the prescription for her from the surgery and dispenses it. The pharmacist can order any medicines not in stock before she comes to collect her medicines.</p>	<p>Day 1 Sheila’s community pharmacist provides a repeat dispensing service.</p> <p>The pharmacist checks with her (by phone, or email or when she calls at the pharmacy – whichever she prefers) that she still needs all the medicines and that the quantities are correct. This also provides an opportunity for the pharmacist to check whether she is having any problems with her medicines, and whether she needs the full quantity dispensed if she still has some medicines at home. This is particularly helpful for medicines that are only taken when necessary, for example painkillers.</p> <p>A pharmacist or nurse supplementary prescriber may be able to manage Sheila’s medicines.</p>

Repeat prescribing systems

Repeat prescribing accounts for 60–70% of prescription costs and 80% of prescription items in primary care.

“Fundamental to this is a system for the continuing assessment of the condition being treated, and of the treatment ... taking into account whether the treatment is being delivered in the most appropriate manner, in appropriate quantities, and being used by the patient as intended.” National Prescribing Centre 2004

As well as affecting ease of accessing medicines for patients, repeat prescribing systems have an important role in ensuring the review of patients' medicines, patient safety and in minimising wastage of medicines. A good repeat prescribing system would provide a trigger for a full review of patients' medicines by a doctor after a specified number of repeats. The review provides an opportunity to change, continue or stop treatment.

Ordering prescriptions

Patients order their repeat prescription from the surgery, usually by posting a repeat order slip or by calling at the surgery and handing the slip to reception staff. Some patients order all the medicines on their repeat list every time, even if they are not always needed. They may worry that if a medicine is thought not to be used, the surgery will remove it from their repeat list and they will not be able to order it again, or it becomes too complicated to remember when to order which item.

Prescription frequency, patient safety and convenience

Repeat prescriptions are generally given for periods of between one and three months, sometimes longer. Some patients would prefer to have a prescription that covers the longest period so they do not have to visit the surgery so often.

“I've been on insulin for ten years now. My diabetes is under control. I won't be stopping the insulin and I go to the hospital to see the specialist. So why does my GP insist on only giving one month's supply of insulin at a time? I could easily manage six months' worth. It's a waste of time.”
(Woman aged 24 with diabetes)

The frequency of repeat prescriptions should balance patient convenience with clinical appropriateness, cost-effectiveness and patient safety. For example, where a patient's condition is stable, it may be appropriate to issue prescriptions for longer periods and this should be discussed and agreed with the patient. Long repeats can lead to waste if treatment is changed or stopped or is not tolerated because of side-effects. It also means that patients may not be reviewed for long periods.

Repeat dispensing makes it possible for patients to get their repeat medicines for up to a year from their community pharmacy without having to contact their GP surgery. On each occasion, the community pharmacist checks that the medicines are still needed and are being used appropriately, to avoid dispensing medicines that will not be used. Evidence from previous pilot studies has shown that repeat dispensing helps reduce waste.

Repeat dispensing can also make it easier for patients with chronic conditions to obtain repeat prescriptions, speeding up services and relieving pressure on GP surgeries. It is also an opportunity to make better use of pharmacists' skills by helping patients get the most out of their medicines. The new proposed pharmacy contractual framework that is being negotiated is expected to include repeat dispensing within the essential service component provided by all pharmacies.

See http://www.dh.gov.uk/PolicyAndGuidance/MedicinesPharmacyAndIndustryServices/Prescriptions/PrescriptionsArticle/fs/en?CONTENT_ID=4000157&chk=xYzR73

Medicines wastage

It is estimated that up to 10% of all medicines prescribed are wasted. Patients are sometimes blamed for causing waste when in fact there are several reasons why medicines are wasted.

Reason for unused medicine	Underlying cause
Treatment changed	GP Hospital after admission Hospital at outpatient clinic Hospital discharge Medicine not tolerated by the patient
Prescription quantities not synchronised	Repeat prescribing system
Patient died	
Patient decides to use medicine intermittently or not at all	Patient – side-effects; perceived lack of efficacy and need; medicine does not fit with daily activities; medicine dose not fit with patient's beliefs.

Medicines returned to pharmacies cannot be used again. The Royal Pharmaceutical Society's Code of Ethics for pharmacists states that "medicines returned to a pharmacy from a patient's home, a nursing or residential home must not be supplied to any other patient". These medicines cannot be used again and have to be destroyed. The reason is that once the medicine has left the pharmacy, storage conditions cannot be guaranteed. Some medicines are sensitive to heat, light or moisture and can become less effective if not stored properly. It is also not possible to guarantee the quality of medicines on physical inspection alone.

Pharmacy prescription collection schemes

Many pharmacies have a system for collecting repeat prescriptions from local surgeries for their regular patients. Although community pharmacies have practice leaflets outlining available services, not all patients know this service is available.

Collecting dispensed medicines

Collecting dispensed medicines during normal pharmacy service hours (generally 9am–6pm) is not a problem for most people. Some patients have to go back and collect their medicines in instalments because the pharmacist cannot always provide the full amount on the first visit.

“If you are epileptic, getting hold of the drugs can be difficult. Phenobarbitone is a restricted drug and sometimes it is difficult to get hold of. And Lamotrigine in different tablet forms, they don't hold a huge stock. You may have to go back to the chemist. You can phone through or post your prescription but when they don't have it all in and you have to go back it can be very frustrating. If you are epileptic and can't drive, getting medications can be difficult. You have to be highly motivated.”
(Man aged 36 with epilepsy) Levenson, R. for the Task Force on Medicines Partnership

Many community pharmacies provide a delivery service to people who are housebound or who have problems getting to the pharmacy. Internet-based pharmacy services are developing and have so far offered a dispensing service for private prescriptions and the sale of over-the-counter medicines. As electronic transfer of prescriptions becomes a reality, internet-based services will become another option for patients.

During the out-of-hours (OOH) period, there have traditionally been local arrangements for people to have prescriptions dispensed. Some pharmacies open for longer than their official ‘contracted’ hours of opening but this cannot always be relied on. Most PCTs have arrangements for gaining access to pharmacies in the case of emergency prescriptions. The recommendation made in ‘Raising standards for patients: new partnerships in out-of-hours care’, also known as the Carson report (Department of Health 2000), was that: “Other than in exceptional circumstances, patients should be able to receive the medication they need at the same time and in the same place as the out-of-hours consultation...”

An OOH Medicines Supply Guide will be published in 2004, providing guidance about how this can be achieved.

Part of the approach for this guide has been to develop a national OOH formulary, identifying a limited range of medicines to meet patients’ urgent needs.

Local health communities will have the flexibility to develop their own local formulary (where appropriate), but this should include (as a minimum) all the medicines on the national list.

Access to palliative care medicines is particularly important in end-of-life care for people with renal disease. Some medicines these patients may require are included in the formulary. Innovative schemes have been developed for access to medicines OOH and some have specifically targeted palliative care medicines. See Tools – Out-of-hours services.

NHS Direct and pharmacy opening hours

Patients can phone NHS Direct or search NHS Direct Online to find their nearest pharmacy that is open out of hours. PCTs liaise with NHS Direct to make sure the information is correct and up to date. Where a pharmacy's opening hours are longer than their contracted NHS hours, patients are advised to telephone the pharmacy first to check it is open.

www.nhsdirect.nhs.uk

Medicines in hospitals

Traditional systems for supplying and administering medicines in hospitals sometimes lead to wastage and contribute to delays in discharge.

Figure 5. Patients' medicines in hospital

	The 'old' system	The modern system
Admission to hospital	Patients' medicines taken away and destroyed. New medicines dispensed.	Patients take their medicines into hospital with them. All medicines are assessed to check quality. If the medicines they brought in are still needed, they will be used (see Patients' Own Drugs on p.52).
On the ward	Medicines administered to patients at set times by hospital staff from medicines trolley.	Self-Administration Schemes (SAMs, see p.56) are appropriate for certain patients. The patient has a lockable bedside locker where their medicines are kept, and the patient has a key. Where there is no SAM scheme the patient's own medicines are administered by staff from a locked bedside cabinet.
At discharge	A 'To Take Out' prescription has to be written for a new set of medicines, which then has to be dispensed for the patient, often entailing a wait.	When patients are admitted to hospital, their medicines are dispensed with all the instructions so that these can be given to the patient on discharge and do not have to be re-dispensed at the time of discharge.

The way medicines are supplied, administered and reviewed is being re-designed for all patients in NHS hospitals. New systems are saving time and making better use of resources. The majority of Trusts have introduced, where appropriate, schemes that involve the continued use of patients' medicines from home when they come into hospital, self-administration while in hospital and dispensing for discharge policies to facilitate the transition back into primary care. These changes promote medication review at admission, during the hospital stay and at discharge.

Labelling and packaging

Problems with medicines packaging

Here is one example of a patient's journey.

Sheila has collected her prescription from the pharmacy. She takes metformin for her diabetes, atenolol for her blood pressure, and simvastatin and aspirin to prevent heart problems. She described some of the problems she had with packaging and labelling of medicines:

- Only one of her four medicines is always in the same packaging; the others often change.
- It is hard to tell some of the packs apart.
- Some of the medicines are in packs of seven, some of 14, and some of 28. Three months' supply means different numbers of packs.
- The days of the week are printed on some of the blister packs. This makes it easy to see whether a tablet has been taken. But some start with Sunday and some with Monday. And there is a problem if a medicine has to be taken several times a day.
- Some of the words on the packs are in foreign languages. Stickers with the information in English sometimes cover up the tablet strips, making it difficult to get the tablets out.
- Some of the blister strips look very similar and when tablets have been popped out it can be difficult to see the name of the medicine. Sheila worries that she might mix up these medicines.
- Sometimes the tablets are in bottles and the child-resistant tops are difficult to get off. Sheila understands the reason why child-resistant tops are used but she keeps all medicines out of reach of her grandchildren who visit regularly so cannot see why ordinary tops could not be used.
- Sheila finds it difficult to read the medicine labels and patient information leaflets because the print is too small.

Sheila's problems with her medicines arise for a number of reasons. Pharmacists can anticipate some of the problems that patients could face when they are on several medicines and can discuss these with the patients. They should, where possible, give patients an opportunity to ask questions or discuss their concerns, especially if they are taking several medicines. Pharmacists could help by providing the medicines in appropriate containers. They could also help by typing the labels in large print if the patient is having problems reading small print.

Prescribers can help by synchronising quantities where possible and using appropriate pack sizes to prevent the need to dispense split packs.

Improving patient understanding through medicines labelling

Research shows that patients may not always know the purpose of, and how to use, all their medicines. Including specific instructions on dosage is important (not using the instruction 'as directed'). Adding the purpose of the medicine on the label can also help patients on multiple medicines to know what each is for. The purpose of the medicine could be included in a medicines reminder chart.

Some medicines can be used for treating more than one condition. Providing simple information to patients about what each medicine is being prescribed for can help them take their medicines more effectively.

Some Medicines Management Collaborative sites are piloting adding the purpose of the medicine to the label on the medicine container. Feedback from patients has shown that they find this helpful. Locally, doctors and pharmacists agree what will be added – for example, 'blood pressure tablets'. Contact: Medicines Management Collaborative via <http://www.npc.co.uk/mms/index.htm>

Making medicine containers easier to open

Some medicines are still available as loose tablets rather than being foil or blister packed. Pharmacists will, on the whole, dispense such medicines in bottles with child-resistant tops. They can, however, supply easy to open tops if requested by patients or carers. Many patients and their carers are not aware that they can ask for these containers. Community pharmacists could help by publicising the availability of easy to open bottles in their practice leaflet. This information will be of particular interest to older people and those who experience problems, for example people with rheumatic disease.

Controlled drugs

Home Office regulations govern the prescribing and supply of controlled drugs. These regulations help to ensure patient safety and public protection. In some instances, these can create delays and inconvenience particularly for palliative care patients in the community and especially out of hours.

The National Prescribing Centre has been commissioned by the Department of Health to develop a good practice guide on the management of controlled drugs in primary care, which will summarise the regulations and provide good practice recommendations. The guide is expected to be published during 2004.

Certain healthcare professionals are now able to supply some controlled drugs under Patient Group Directions. Extended formulary nurses are now able to prescribe six controlled drugs. Subject to parliamentary approval to changes to the Home Office's Misuse of Drugs Regulations and related amendments to NHS Regulations, nurses and pharmacists should be able to prescribe controlled drugs under a supplementary prescribing arrangement later in 2004.

6 Tools

This section contains information about tools to address the areas for improvement referred to in the previous section. The tools are described under the section headings listed below. Examples are included not as the 'only' way or the 'best' way to provide services but simply to illustrate the sort of new approaches being used. A contact point is given for each example for those who may want to find out more or who may be interested in setting up such a scheme.

- Assisted administration (and monitored dosage systems)
- Audit tools
- Clinical guidelines, technology appraisals and systematic reviews
- Discharge medicines protocols
- Education and training for patients, carers and clinicians
- Information for patients and carers
- Local Pharmaceutical Services
- Medication error reporting and analysis
- Medication review
- Medicines Management Collaborative
- Monitoring of medicines of 'high risk'
- Non-pharmacological approaches
- Out-of-hours services
- Patient and user organisations
- Patient Group Directions
- Patient involvement
- Patients' Own Drugs in hospitals
- Pharmaceutical industry resources
- Practice guidance and resources
- Prompts and reminders
- Repeat prescribing system review
- Self-administration of medicines in hospitals
- Service development
- Shared care guidelines
- Supplementary prescribing
- Waste reduction strategies

Assisted administration – medicines support and monitored dosage systems

Compliance aids and monitored dosage systems can be useful but some patients are provided with them without a proper assessment of whether they are the best way to meet their needs.

Some local schemes have generally found that such aids are the best solution for only around 50% of people referred for such a service. Deciding whether to use a compliance aid provides an ideal opportunity to review treatment, reduce the number of medicines and the frequency of doses prescribed. Rationalisation of the patient's medicines, support from the local community pharmacist, or a medicines reminder chart may be all that is needed to help patients take their medicines more effectively.

The proposed contractual framework for pharmacy being negotiated by the Pharmaceutical Services Negotiating Committee, the NHS Confederation and the Department of Health is expected to include medicines assessment and compliance support as an enhanced locally commissioned service which PCTs can commission.

A guide to the use of multi-compartment compliance aids (MCAs) including Monitored Dosage Systems (MDS) is available at: www.medicines-partnership.org/medication-review/toolkit

Protocol to assess patients' medicines support needs – East Kent and Coastal PCT

Visits were made to GPs, district nurses and social services to explain the service by the PCT prescribing team.

Any member of the health or social care team who identifies a patient experiencing problems with his or her medicines can make a referral to the PCT's Prescribing Team. Some of these patients could be at risk of being admitted to a care home or hospital because of difficulties in taking or using medicines. GPs, nurses, social services carers, community pharmacists and pharmacy technicians are involved in the service.

Patients referred to the team are assessed in their own home by a pharmacist. Using an assessment protocol, the pharmacist makes recommendations for action that can include: changes to the medicine prescribed; changes to containers in which medicines are dispensed; reminder charts; and use of multi-compartment compliance aids.

Of the first 136 patients seen, a monitored dosage system was started for 76. Information and education were provided for patients and carers in 43 cases. The patient's medicines were rationalised in 24, and additional support from the community pharmacist was provided for 19. The service is funded by the PCT.

Contact: Sally Clarke, email: Sally.clarke@ekentha.nhs.uk

Use of Dosettes for children after a renal transplant

After a renal transplant, a child may be taking as many as ten medicines. Children and their parents learn to use a medicines compliance aid in a scheme at Guy's and St Thomas' NHS Trust at discharge. Patients and carers fill their own Dosette box in the hospital pharmacy once a week for several weeks, with the help of a pharmacy technician if necessary. Each patient also has a written medicines record. Once the patient and parent or carer – and the pharmacy department – are happy that their skills and knowledge are sufficient to enable them to fill the Dosette unsupervised, they are discharged from the supervised scheme.

The advantage of a Dosette box is that children need not take all their medicines in bottles to school. Instead they can carry that day's medicines and take them discreetly. Patients have been assessed for non-compliance and have been asked for their views of the scheme. Feedback has been very positive and compliance appears to be high.

A multi-disciplinary approach was used to set up the scheme. The transplant nurses and the consultants were pivotal in taking the scheme forward because of their close relationship with the patient. The Pharmacy Department manages the service, with the involvement of pharmacy technicians and the renal paediatric pharmacist.

Contact: Steve Tomlin, Principal Paediatric Pharmacist, Guy's and St Thomas' Trust.
Email: stephen.tomlin@gstt.sthames.nhs.uk

Audit tools

All NICE clinical guidelines and appraisals contain audit criteria. See www.NICE.org.uk

As part of its PCT Competency Framework, The National Primary and Care Trust Programme (NatPaCT) has developed a series of competency statements within its domain of 'Clinical Quality'. The statements for epilepsy services are shown below.

NaTPaCT Competency statements 8.20 Epilepsy Services

- 8.20.1 The PCT will have plans in place to support the delivery and development of epilepsy services
- 8.20.2 The PCT will have active development and education programmes with employers and schools in relation to epilepsy and the services that support people with epilepsy
- 8.20.3 The PCT will be actively working with the voluntary sector to improve services for people with epilepsy
- 8.20.4 The PCT will have developed primary care epilepsy services to an advanced level
- 8.20.5 The PCT will have an active up-to-date education programme for primary care practitioners
- 8.20.6 The PCTs' practices will work to treatment guidelines
- 8.20.7 All PCT practices will have an epilepsy Register which is used to ensure that patients diagnosed as epileptic will be regularly assessed
- 8.20.8 The PCT in conjunction with its practices and its specialists will undertake regular check-ups with patients to assess progress, compliance with drug regimes etc

- 8.20.9 The PCT will have systems in place to ensure that specific client groups are effectively monitored e.g. women of child bearing age
- 8.20.10 The PCT will have developed effective links with secondary care providers through specialist nurses or GPs with a Special Interest (GpWSIs)
- 8.20.11 The PCT will commission services to provide timely access to consultant care, tests and investigations
- 8.20.12 The PCT will have developed and implemented structured systems to ensure that particular patient groups have access to equitable services e.g. patients with learning difficulties
- 8.20.13 The PCT will be active in the development of joint working with users and carers and will provide opportunities through helplines and Expert Patient Programmes to participate fully in the development of their care.

The National Standard of Good Practice for the Treatment and Care of People with epilepsy, published by the Joint Epilepsy Council of the UK and Ireland, brings together previous recommendations and guidelines in one document. www.jointepilepsycouncil.org.uk

The Medicines Resource Centre (MeReC) Briefing 24, Improving Epilepsy Services and Care, was issued in March 2004. The document signposts recent and forthcoming guidelines and considers practical aspects of care from the primary care perspective.
http://www.npc.co.uk/MeReC_Briefings/2003/briefing_no_24.pdf

Clinical guidelines, technology appraisals and systematic reviews

Clinical guidelines aim to provide guidance on the diagnosis and treatment of specific conditions. Technology appraisals review a discrete area such as a new medicine or technology. Systematic reviews synthesise the evidence about a specific clinical question or questions. These tools have different aims and applications. In addition to including definitive evidence where it exists, clinical guidelines can also be helpful where evidence is incomplete or lacking.

NICE guidelines and technology appraisals

Diabetes

Management of Type 2 diabetes – retinopathy (Guideline E) – February 2002

Management of Type 2 diabetes – renal disease, prevention and early management (Guideline F) – February 2002

Management of Type 2 diabetes – blood glucose monitoring (Guideline G) – September 2002

Management of Type 2 diabetes – blood pressure and blood lipids (Guideline H) – October 2002

Diabetes – long-acting insulin analogues (No 53) – December 2002

Diabetes – the use of subcutaneous continuous insulin infusion (Technology Appraisal Guidance No 57) – February 2003

http://www.nice.org.uk/pdf/57_Insulin_pumps_fullguidance.pdf

Guidance on the use of patient education models for diabetes (No 60) – April 2003

http://www.nice.org.uk/pdf/FAD_patient_educationmodels_diabetes.pdf

Information for patients – guidance on the use of patient education models for diabetes
<http://www.nice.org.uk/pdf/60PatienteducationmodelsEnglishinfoforpatients.pdf>

Diabetes – use of glitazones for the treatment of Type 2 diabetes – August 2003
http://www.nice.org.uk/pdf/TA63_Glitazones_Review_Guidance.pdf

Diabetic foot ulcers (new treatments) – to be incorporated into NICE clinical guidelines on wound care management

Diabetes in pregnancy – expected date of issue February 2007

Type 2 diabetes footcare clinical guideline – January 2004
<http://www.nice.org.uk/pdf/CG010NICEguideline.pdf>

Type 1 diabetes: diagnosis and management of Type 1 diabetes in primary and secondary care – due July 2004

Neurology

Dementia – expected date of issue December 2006

Epilepsy: the diagnosis and management of epilepsy in children and adults – August 2004

Newer drugs for epilepsy in adults, full guidance. <http://www.nice.org.uk/pdf/TA076fullguidance.pdf>

Newer drugs for epilepsy in adults – quick reference guide.
<http://www.nice.org.uk/pdf/TA076fullguidance.pdf>

Newer drugs for epilepsy in adults: understanding NICE guidance – information for adults with epilepsy, their families and carers, and the public.
<http://www.nice.org.uk/pdf/TA076publicinfoenglish.pdf>

Newer drugs for epilepsy in children – full guidance
<http://www.nice.org.uk/pdf/ta079fullguidance.pdf>

Multiple sclerosis – Management of multiple sclerosis in primary and secondary care November 2003
<http://www.nice.org.uk/pdf/CG008guidance.pdf>

Multiple sclerosis (cannabinoids) – appraisal status: halted

Parkinson's Disease – expected date of issue June 2006

Renal

Immunosuppressive therapy – due June 2004

For many guidelines and appraisals NICE also produces an information leaflet for patients. These leaflets are available on the NICE website at www.nice.org.uk

Treatment guideline sources

www.nice.org.uk

www.prodigy.nhs.uk

www.sign.ac.uk

www.doctoronline.nhs.uk

Clinical management of epilepsy

The Scottish Intercollegiate Guideline Network (SIGN) published its guideline on epilepsy management in April 2003 (SIGN 70). The SIGN guideline on epilepsy recommends an annual review for people with epilepsy and includes an Example Information Checklist that could be used by health professionals and patients. All items in the section 'Antiepileptic Drugs' are marked as 'essential information' – choice of drug, efficacy, side-effects, adherence, drug interactions and free prescriptions.

Scottish Intercollegiate Guidelines Network (2003) Guideline 70.

Diagnosis and management of epilepsy in adults. www.sign.ac.uk/pdf/sign70.pdf

The National Institute for Clinical Excellence (NICE) is due to publish a new guideline on the management of epilepsy in mid 2004.

Diagnosis and management of epilepsy in adults (April 2003). www.sign.ac.uk/pdf/sign70.pdf

Epilepsy in children – newer drugs; epilepsy in adults – newer drugs March 2004; the diagnosis and management of epilepsy in children and adults (expected June 2004). www.nice.org.uk

Care pathways in Parkinson's Disease

A guideline on treatment of Parkinson's Disease in primary care was developed by a team including primary care practitioners, consultant specialists, carers and patients. The guideline will be updated to take into account new treatments as they become available.

Contact: Parkinson's Disease Society

Email: enquiries@parkinsons.org

Discharge medicines

Unintended changes in medicines have been shown to occur soon after discharge from hospital (Duffin et al 1998). Providing a copy of the discharge prescription for patients to give to their community pharmacist has been shown, in a controlled trial, to reduce unintended discrepancies (Duggan et al 1998). A protocol implemented by a practice-based pharmacist has also been shown to reduce unintended discrepancies (Randles and Black 1999).

Guidance on discharge medication

Four key pharmacy organisations (Pharmaceutical Services Negotiating Committee, Guild of Healthcare Pharmacists, Primary Care Pharmacists Association and RPSGB) commissioned the development of guidance on discharge medication, which is available on the RPSGB website (www.rpsgb.org.uk). Hard copies are available from the Practice Division of the RPSGB on 0207 572 2409.

The RPSGB's Hospital Pharmacy Group has produced guidance on Good Practice Medicines Management during patient admission and is available on the website.

Education and training for patients

Education for patients can be provided in groups or on a one-to-one basis and can be led by professional or lay educators. Lay-led self-management training programmes are complementary to, and not an alternative to, education about specific conditions and their management, whether lay- or professional-led.

NICE guidance on the use of patient-education models for diabetes 2003

The guidance recommends that structured education be offered to all people with diabetes at the time of diagnosis and then, as required, based on a formal, regular assessment of need. Principles of good practice are set out. Education in groups is recommended unless group work is considered unsuitable for an individual. It is also recommended that the education is provided by multi-disciplinary teams in a variety of formats.

Source: NICE Technology Appraisal no. 60. Guidance on the use of patient-education models for diabetes. www.nice.org.uk/pdf/FAD_patient_educationmodels_diabetes.pdf

Group education in primary care for people with diabetes

A diabetes nurse educator works across Castle Point and Rochford PCT, helping practice nurses develop skills in diabetes management. Patients can be referred by any healthcare professional in primary or secondary care and they have the option of a one-to-one or group session. At group patient education sessions, patients fill out a pro forma identifying all their medicines and what they want to get from the session. Individual needs may relate to any aspect of diabetes care, including medicines. The needs identified are then used to produce individual management plans. Common medicines-related questions raised by patients in group sessions include who patients can ask for advice on dose alteration, who can help them understand whether their medicine is working for them, what the side-effects are, how long the medicine will need to be taken for, and what to do if a dose is missed.

Contact: Alexis Hodgkins, Diabetes Specialist Nurse, Castle Point & Rochford PCT, Essex.
Email: Alexis.Hodgkins@southend.nhs.uk

Dosage adjustment for normal eating (DAFNE) in diabetes

DAFNE courses teach people with Type 1 diabetes how to adjust their insulin to suit their lifestyle. The programme enables them to eat what they want when they want. Research evidence shows that people can improve their glucose control without having severe hypoglycaemic episodes.

Contact: Gillian.Thompson@northumbria-healthcare.nhs.uk

General information about DAFNE can be found on the Diabetes UK website at <http://www.diabetes.org.uk/infocentre/inform/dafne.htm>

Medicines and the Expert Patient Programme

One of the sessions in the generic lay-led self-management courses in the Expert Patient Programme discusses the use of medicines in chronic conditions. Patients 'freethink' the methods they use to help them to take their medicines. As 'homework', they compile a list of all their medicines (prescribed and over-the-counter), doses and what each medicine is for. The intention is that patients can keep their working list, update it when needed and take it with them for their contacts with health professionals. This ensures that the health professional has a full picture of all the medicines the patient is taking. Feedback from patients about the session has been positive.

Contact: Brenda Spettigue. Email: brenda.spettigue@nhsepp.uk

Peer support in diabetes

The Isle of Wight has a scheme where 24 people with diabetes have completed intensive training to act as peer support counsellors on all aspects of diabetes. Volunteers were invited to participate through local advertisements and during outpatient consultations. Training sessions were held weekly for 17 weeks. In addition to providing support to people with diabetes and their carers, the peer support counsellors have played a more active role with local patient associations and have attended open meetings of the Primary Care Trust to help develop local plans. Twelve have volunteered to lecture at the next training programme.

Contact: Dr Arun Baksi. Email: baksi@baksi.demon.co.uk

Education and training for carers

Since 2001, the Parkinson's Disease Society has run seminars led by health professionals for carers. The aims are to increase carer and patient understanding of treatment and side-effects, and improve medicines management. Following piloting with 18 groups in Scotland, the seminars were evaluated by peers and delegates prior to roll-out. The programme is now provided in Scotland and the North of England and will be extended to other areas. Contact: Parkinson's Disease Society
Email: enquiries@parkinsons.org

Education and training for clinicians

Concordance training tool in epilepsy

The Database of Individual Patient Experience and Medicines Partnership Centre have developed training material to support shared decision-making for the treatment of epilepsy. This will be used in professional development sessions for clinicians.

Contact: info@medicines-partnership.org

Nurse specialist training in Parkinson's Disease

In 1997, a specialist nurse course (ENB 43) was devised with the Royal College of Nursing which was subsequently incorporated into Nurse Diploma programmes. A network of more than 150 specialist nurses was established through a partnership between the RCN and the Parkinson's Disease Society. The nurses provide a professional educational and advisory service to nursing peers and healthcare colleagues across secondary and primary care settings.

Contact: Parkinson's Disease Society

Email: enquiries@parkinsons.org

Community pharmacist training in diabetes and neurological conditions

The Centre for Pharmacy Postgraduate Education (CPPE) has interactive workshops on diabetes and the central nervous system (CNS). 'Diabetes: a patient-centred approach' also has an associated distance learning package, which will be available in 2004. A workshop on CNS (including epilepsy, Parkinson's Disease and dementia) was piloted in January 2004 and is now being offered more widely. CPPE also has a workshop on Patient Group Directions and a forthcoming distance learning pack 'Prescribing in Central Nervous System disorders'.

Contact: Jennifer Archer, Assistant Director, Centre for Pharmacy Postgraduate Education

Email: jennifer@cppe.man.ac.uk

See also <http://www.cppe.man.ac.uk>

Community pharmacist training in Parkinson's Disease

The Medicines Partnership Taskforce has set up a community pharmacist-led Parkinson's Partnership Project. This pilot project will be assessing how community pharmacists can support patients with Parkinson's Disease. A network of trained and accredited pharmacists with expertise in the disease has been established across three PCTs to offer regular consultations for patients and their carers. Success of the initiative could lead to a national network of community pharmacists specially trained to support patients with Parkinson's Disease. For further details, see www.medicines-partnership.org/projects

Contact: gmyrnors@medicines-partnership.org

Training on renal disease and management

The Renal Pharmacists' Group is developing a distance learning course on chronic kidney disease and its management. Primarily intended for new renal pharmacists, the course can be accessed by other hospital and community pharmacists. Topics covered include functions of the kidney, different renal diseases, transplantation and treatment. The group is also establishing a mentoring scheme for new renal pharmacists.

Contact: Renal Pharmacists' Group – Rob Bradley, Cardiff Heath Hospital.

Email: Robert.Bradley@CardiffandVale.wales.nhs.uk

Information for patients and carers

Internet

The Task Force on Medicines Partnership worked with patient groups, regulators, NHS Direct, medicine manufacturers and other stakeholders to produce a new source of information on medicines as part of development work for 'Ask About Medicines Week' in October 2003. The team designed two sorts of information – one about diseases and conditions, the other offering detailed information on specific medicines. Pilot versions for epilepsy and flu can be accessed at: <http://medguides.medicines.org.uk/>

Most voluntary organisations that support people with specific conditions now have websites offering a range of information for use by patients, carers and health professionals (see Tools – Patient and user organisations).

Leaflets

Good quality information leaflets for patients and carers about medicines and diseases can be downloaded from a number of websites including:

www.prodigy.nhs.uk – NHS-produced patient information leaflets associated with treatment guidelines for a wide range of conditions.

www.doctoronline.nhs.uk (public site) and www.doctoronline.nhs.uk (NHS net site) – patient leaflets with information on medical conditions, treatment options and services available.

www.which.net/health/dtb/treatment.html – ‘Treatment Notes’, 22 patient leaflets adapted from Drug and Therapeutics Bulletin articles.

www.medicinesorg.uk – the Electronic Medicines Compendium, for access to pharmaceutical industry Patient Information Leaflets and Summaries of Product Characteristics.

Leaflets in English, Urdu, Hindi and Bengali are available on the website **www.mypil.com**. The site covers chronic conditions (for example, heart failure and angina), lifestyle (exercise and stopping smoking) and social care issues (Benefits information).

The Committee on Safety of Medicines has set up a Patient Information Working Group, which will review the information given to patients with their medicines. **www.mhra.gov.uk**

Medication record cards

Record cards are particularly valuable for patients who are being cared for in outpatient clinics in hospitals as well as in primary care. Although patients visit the outpatient clinic at the hospital, their medicines are not always dispensed there. Patients may get their medicines dispensed from a community pharmacy. Changes to the treatment may be made at an outpatient clinic. This information will need to be communicated to the community team if patients’ medicines are to be dispensed in a timely manner. Changes made in the community will also need to be communicated to the hospital team. Having an accurate and up-to-date record of what is being taken helps the GP and pharmacist to make sure the correct medicines and doses are prescribed and dispensed.

In Oxford, all new transplant patients are entered into the Transplant Centre’s self-medication programme by post-operative day 2-5. As part of this training programme, they are given a completed medication record card by the pharmacist, which includes all the medicines the patient is prescribed. This card acts as a teaching aid so that, by discharge, patients are familiar with their medicines and know when, how and why they are taking them, common adverse effects, what to do if they miss a dose, and where to get continuing supplies from. After discharge, patients are actively encouraged always to bring the card with them to clinic so it can be updated. Having an accurate and up-to-date record of exactly what is being taken helps the multi-disciplinary team ensure the correct medicines and doses are given. Contact: Andrea Devaney, Transplant Pharmacist, Oxford Transplant Centre, Email: andrea.devaney@orh.nhs.uk

Figure 6. Oxford Transplant Centre Medication Record

Name: Date of Transplant: Card Completed by: Date:			When to take your medicine					Other Instructions or Information	Purpose of Drug
			Morning 7-9am	Late Morning 10-12am	Lunchtime 12-2pm	Evening 8pm	Bedtime 10-12pm		
Tablets/Medicines		Strength							
(NEORAL) CICLOSPORIN	Capsule	100mg					On clinic days bring morning dose with you to hospital and take immediately after your blood test. On these days it is important to still take the evening dose at 8pm. Avoid grapefruit/grapefruit juice	Anti-rejection drugs (Immuno-suppression)	
(NEORAL) CICLOSPORIN	Capsule	50mg							
(NEORAL) CICLOSPORIN	Capsule	25mg							
AZATHIOPRINE	Tablet	50mg					Take with food		
AZATHIOPRINE	Tablet	25mg							
PREDNISOLONE	Tablet	5mg					Steroid tablet. Take with food. Reduction programme starts 2 months after transplant. Follow dates on separate sheet		
(SEPTRIN) CO-TRIMOXAZOLE	Tablet	480mg					Stop 6 months after transplant	Antibiotic – prevents a specific chest infection	
RANITIDINE	Tablet	150mg					After 3 months reduce to ONE tablet at night and stop at 6 months	Reduce stomach irritation caused by steroids.	
NYSTATIN	Pastille	-					Avoid food and drink for one hour after pastille. Stop one month after transplant	Prevent sore mouth (oral thrush)	
ASPIRIN	Tablet	75mg					Swallow whole or dissolve. Take with food. To continue/to stop one month after transplant _____ (delete as appropriate)	To thin blood	

Useful tips for outpatient clinic visits

1. Always bring this card with you to show the doctor, nurse or pharmacist.
2. Please bring with you any new tablets and medicines (including herbal remedies) you are currently taking or plan to start taking. Also include anything you have bought from the chemist or supermarket.
3. Please ask the pharmacist or a clinic nurse for a medication record sheet. You can fill this in or ask them to fill it in for you. This will help us keep track of your treatment.
4. If you experience any adverse reactions which you think may be caused by your medication, **KEEP TAKING THE MEDICINES** and inform the doctor at the Transplant Centre

5. Write a list at home about anything which concerns you and you want to ask someone about. It is easy to forget when you get to the clinic.

6. The outpatient pharmacist is happy to discuss any medicines related issues with you

7. To contact the specialist:

Transplant Nurse Practitioners
(8.30am – 3.30pm)
Ring (01865) 225375

Transplant Ward (any time)
Ring (01865) 226122 or
226101

Transplant Outpatient Pharmacist
Ring (01865) 226105 or
(01865) 741841
and ask for bleep 5568

Please take this card with you to your doctor and chemist when you require more medication.

Name:

Address:

.....

.....

.....

G.P:

Clinic: Renal Transplant

Please bring this card with you each time you come to the Transplant Centre or visit any other hospital or department

Medicines reminder charts

Medicines reminder charts summarise a patient's medicines. Typically, a chart lists all the medicines the patient needs to take, and shows when they are to be taken, together with other relevant information (for example, if the medicine should be taken before or after food).

See <http://www.medicines-partnership.org/medication-review/toolkit/reminder-chart>

Local Pharmaceutical Services

Local Pharmaceutical Services offer the opportunity to agree contracts that deliver pharmaceutical services in ways that are not possible under the current national contractual arrangements. For example, a Local Pharmaceutical Services contract has begun in Camden PCT aimed at improving care for Bengali patients with diabetes. A patient pathway has been developed with the local GPs, diabetes nurses and a hospital. Information-sharing has been established to prevent duplication of testing and to provide regular monitoring information. A survey of patients with diabetes has been conducted to ascertain existing knowledge and identify information needs. (See also Patient Involvement: Service Development.) Contact: Suhas Khanderia, Pharmaceutical Adviser, Camden PCT
Email: suhas.khanderia@nhs.net

Medication error reporting and analysis

The National Patient Safety Agency (NPSA) has set up a national reporting and learning scheme for patient safety incidents including, for example, devices, care received from professionals, and location of care. The NPSA is making available a Root Cause Analysis toolkit via risk managers within NHS organisations. An Incident Decision Tree has also been developed for use by managers to support decision-making after a patient safety incident has occurred. This method focuses on what happened and how it happened as opposed to who was involved.

The NPSA has field-tested an electronic reporting system for patient safety incidents in primary and secondary care and the independent sector. National roll-out for England and Wales started in November 2003.

Medication review

Medication review can successfully identify medicines no longer required and medicines that need to be added. It can be a forum for discussion about concordance and can improve safety by identifying side-effects and checking biochemical test results. There is good evidence to support pharmacist-conducted medication review (Zermansky et al 2002).

A practical guide to implementing medication review is available at www.medicines-partnership.org/medication-review

Produced by the Medicines Partnership Centre with the Medicines Management Services Collaborative, and endorsed by the Department of Health, *Room for Review* defines different levels of review, gives examples of good practice, and provides tools for local use to save reinventing the wheel. The guide also provides a definition of medication review.

Patient's guide to medication review

The Medicines Partnership Centre has produced a patient's guide to medication review, "Focus on your Medicines". It raises awareness about the purpose and benefits of medication review and will help patients who want to play a more active part in reviewing their medicines to do so. The guide was published in April 2004 – 300,000 copies have been distributed through PCTs and another 100,000 through patient organisations. Inquiries about additional copies should be sent to info@medicines-partnership.org

Contact: Joanne Shaw, Director, Medicines Partnership

Email: jshaw@rpsgb.org.uk

Medication review for haemodialysis patients attending hospital

Patients attending Antrim Hospital in Northern Ireland for dialysis or clinic have a medication review by the renal pharmacist while at the hospital. Patients are educated about their medicines and given a medication record card containing accurate details of their current medicines. Patients appreciate the service and have commented on how helpful they have found the medication record cards. The pharmacist completes a recording form to document the medication review and updates each patient's medicine record in the renal unit. An audit after the first 40 reviews showed that, as a result of the review by the pharmacist, an intervention was made in 37 cases.

Contact: Maire McManus, Renal Pharmacist, Antrim Hospital

Email: Maire.McManus@uh.n-i.nhs.uk

Medicines Management Collaborative

The Medicines Management Team, based at the National Prescribing Centre in Liverpool, enables and provides support to accelerate development and improve existing medicines management services at local level. The collaborative ethos involves the spread and adoption of existing good practice by people from different environments and backgrounds, all working together towards a common goal.

The programme began in spring 2001 and 146 Primary Care Trusts in four waves have been through, or are actively participating in, the programme. This represents a population of potentially 27 million patients. The overall goal of the programme is "... to help optimise prescribing, plus the experiences and outcomes for each patient, wherever medicines are involved".

This goal is supported by four aims:

- Identifying and addressing unmet pharmaceutical need.
- Helping patients get the best from their medicines and thereby delivering real improvements in health.
- Developing innovative medicines management approaches that have the patient's needs uppermost while improving service efficiency and reducing waste.
- Providing convenient access to a range of medicines management services in different environments through multi-disciplinary working, which builds on the strengths of pharmacists.

Much of the learning from the first three waves has already spread to other organisations and healthcare settings. Local project teams participating in the collaborative programme have tackled many of the issues discussed in this resource. A series of reports, including contact details of participants, is freely available from <http://www.npc.co.uk/mms>.

The fourth wave of the existing programme involves 40 teams drawn from PCTs and hospitals. The focus will be on collaborative working and, more specifically, on seeking to engender a team approach to issues such as discharge planning and dispensing for discharge, the use of patients' own medicines and self-administration of medicines by patients during a hospital stay, and improving communications where medicines are involved.

In addition, a hospital medicines management collaborative commenced in the spring of 2004, initially involving teams from ten acute hospital trusts. A further ten acute Trusts will start in September 2004. The focus is on medicines management issues that are more specific to the hospital environment. The collaborative will address a number of the issues raised by the Department of Health's Medicines Management Framework for hospitals, the Cabinet Office Report 'Reducing the burdens in hospitals' and the Audit Commission's 'A spoonful of sugar' document. The aim is to help local teams identify, learn from and adopt existing good practice in medicines management.

Further details are available from the National Medicines Management Team.

Contact: Richard Seal, Director of Medicines Management, National Prescribing Centre
Email: richard.seal@npc.nhs.uk

Monitoring of medicines of 'high risk'

For medicines of 'high risk', simple changes could be put in place to improve recall systems which invite patients to attend the practice to have a test performed to monitor their treatment. For example, Haywood and Middleton PCT implemented a simple idea to make sure regular biochemical monitoring tests were carried out for medicines of 'high risk'. A baseline assessment showed that biochemical monitoring of such medicines was not being carried out routinely. A new system has been set up, using the patient's birthday month as the index date for annual testing. This is entered on the practice computer to generate a reminder. Patients know to request a test if they do not receive a letter inviting them for one. Contact: Fiona Watterson, Medicines Management Collaborative facilitator. Email: fiona.watterson@hmpct.nhs.uk

Aide-memoires with lists of medicines of 'high risk' have been produced by several PCTs. The NPSA is currently working on developing such a list, which can be used during medication review to check whether the necessary tests have been carried out and whether the results are available. They can also be used within repeat prescribing systems to flag records to initiate reminders about test results or any other monitoring.

Non-pharmacological approaches

When people with diabetes are given information and guidelines for coping with their disease, making lifestyle changes can be difficult. The Expert Patient Programme (EPP) can help people through the action planning and problem-solving skills needed to make these changes. Other aspects of the course can also help make lifestyle changes. For example, a young professional woman with diabetes participating in an EPP self-management course told the group that her diabetes was not well controlled because she had two main problems – not eating the right things (because she was tempted to buy unhealthy foods in the supermarket, resulting in being 'told off' by her mother), and not taking enough

exercise. She knew what she should have been doing but felt unable to do it. Members of the group suggested that in her action plan she could plan the meals for the week ahead and make the shopping trip with her mother. These small changes worked and she was then able to tackle taking more exercise. Contact: Brenda Spettigue. Email: Brenda.Spettigue@nhsepp.org

Pharmacists can support patients by identifying and recommending non-pharmacological measures for patients to improve their health – for example, advice on healthy diets, obesity reduction, regular exercise, stopping smoking and alcohol consumption. The new contractual framework for pharmacy being discussed between the PSNC, NHS Confederation and the Department of Health is expected to reflect the public health role of pharmacists including the provision of healthy lifestyle advice.

The Blantyre/North Hamilton Social Inclusion Partnership has set up a health and lifestyle membership scheme, “Up for it?”, aimed at motivating behavioural and lifestyle change. Health checks are delivered by Lloyds pharmacies (using a team of pharmacists and pharmacy technicians) in specially-designed premises within existing community facilities. A computer-based risk assessment system is used which includes a lifestyle questionnaire, a stress level indicator questionnaire and clinical tests such as blood pressure, total cholesterol and blood glucose levels.

Out-of-hours services

Integrated out-of-hours service – Blackpool PCT

Under a Local Pharmaceutical Services contract, local pharmacists are working on a sessional basis with nurse practitioners in the out-of-hours (OOH) primary care centre (Fylde Coast Primary Care Services). The service focuses on the management of minor ailments. This includes the provision of medicines from a limited formulary where OOH teams provide the opportunity for a more integrated service.

Contact: Suzy Layton, Operations Director, Fylde Coast Primary Care Centre.
Email: Suzy.Layton@exch.bvh-tr.nwest.nhs.uk

Out-of-hours supply of palliative care medicines

Community pharmacists in Essex have been providing an OOH service for palliative care medicines since 1997. Thirty pharmacies, spread across the geographical area, are involved in the scheme. These pharmacies keep a stock of locally agreed medicines supplied by the local hospital. Because some of the medicines are not regularly prescribed and to reduce wastage, stock is exchanged six months before its expiry date. There is a system for contacting the pharmacist to arrange supply and the response time must be within two hours. The patient or representative collects the medicine from the pharmacy. Payment for the scheme was agreed with the Local Pharmaceutical Committee.

Contact: John Stanley, Essex Pharmaceutical Committee

[www.psn.org.uk/database Palliative Care](http://www.psn.org.uk/database/Palliative%20Care)

Five community pharmacies across two Surrey PCTs participate in a palliative care service OOH. The pharmacists have completed training in palliative care and have given a commitment to stocking an approved list of palliative care medicines and to providing an OOH service for these medicines.

Contact: Gabrielle Clezy

Email: Gabrielle.Clezy@eeandms-pct.nhs.uk

Patient and user organisations

There are several websites run by patient and user organisations which provide valuable information for patients and professionals.

Diabetes

The charity **Diabetes UK** offers information and support to people with diabetes through its website (www.diabetes.org.uk) and the Diabetes UK Careline, which is open Monday to Friday, from 9am to 5pm, with a translation service on 020 7424 1030. Printed literature is available, for example 'Diabetes for Beginners' and 'Diabetes and your tablets'. The website has sections for patients and their families and for health professionals.

The **Insulin Dependent Diabetes Trust (IDDT)** was formed in the UK in 1994 as a result of the experiences of the problems and adverse effects that some people reported when using synthetic 'human' insulin. The website focuses on the use of insulin. It provides information on a range of diabetes topics including hypoglycaemia, the eyes and diabetes, and the kidney and diabetes. www.iddtinternational.org

Renal disease

Describing itself as "an experiment in online patient information for kidney patients and those who care for them", the **Kidney Patient Guide website** offers information on: physical aspects of kidney failure; treatment of kidney failure (with a section on phosphate binders, antihypertensives, diuretics, EPO, iron, vitamins and laxatives); emotional effects; diet; financial implications; holidays; carers/partners/family and friends; support groups; and 'What patients say', where patients tell their own stories about their experiences of life with kidney disease. www.kidneypatientguide.org.uk

The **National Kidney Federation website** includes medical information, a section on drugs, and 'Know your numbers' – a guide to the monitoring tests that a person with kidney disease is likely to have, with ranges for normal results. The site also has information on 'Medicines you can buy over the counter – a guide by ailment, showing which over-the-counter medicines should be avoided and suggesting suitable alternatives'. www.kidney.org.uk

EdREN is produced by the staff of the Renal Unit at Edinburgh Royal Infirmary. The site includes information for patients and health professionals. EdREN INFO is a source of information on kidney diseases for patients and non-specialist doctors and is the most commonly read part of the website. There is a section for GPs on referral and management information. www.edren.org

Long-term neurological conditions

Epilepsy Action is the working name for the British Epilepsy Association. Services include a national helpline and website. The site provides a list of medicines used for the treatment of epilepsy in the UK, with information on the types of seizures for which they are used and descriptions of common side-effects. The site also has areas for children (Beach Park), for teenagers with epilepsy (upbeat) and teenage girls (getAHEAD). www.epilepsy.org.uk

UK Epilepsy helpline: 0808 800 5050 Monday-Thursday 9am-4.30pm, Friday 9am-4pm

A range of publications is also available.

The **National Society for Epilepsy** provides a telephone helpline on 01494 601400 between 10am and 4pm, Monday to Friday. The website includes Frequently Asked Questions and a section on personal experiences where patients tell their story about diagnosis and treatment. www.epilepsynse.org.uk

The **Multiple Sclerosis Society** has a telephone helpline on 0800 800 8000. The website has sections for patients and health professionals. 'A chance to talk' includes discussion boards on 'Newly diagnosed', 'Young people', 'Everyday living' and 'Carers'. A section on 'Coping with symptoms' includes fact sheets about disease modifying drugs. www.mssociety.org.uk

The **Parkinson's Disease Society** has a telephone helpline and website. A range of publications is available including booklets on medicines and on driving. There is a nurse-led helpline to answer queries, including on medicines and medicines management. Helpline: 0808 800 0303. www.parkinsons.org.uk

Patient Group Directions

Patient Group Directions (PGDs) are written instructions for the supply or administration of medicines to patients who may not be individually identified before presentation for treatment. See www.pgd.nhs.uk. This website provides a list of PGDs being used in the health service. Its purpose is to enable people intending to produce a PGD to find out whether someone else has already developed one. A project board is overseeing development of the website from its current function as a repository of information to an interactive site. Information on training, competencies, national templates and local versions will be added. The new site is now available.

The Health Service Circular HSC 2000/026 provides more details on how PGDs can be developed.

Patient Group Direction for treatment of anaemia with epoetin in chronic kidney disease

Specialist nurses administer epoetin under a PGD at the Exeter Kidney Unit. The PGD has improved practice by speeding up changes to doses and by creating clearer lines of responsibility. The nurse who takes the blood sample or arranges for the patient's GP practice to take it is responsible for monitoring the result and acting on it. The nurse usually knows the patient well and is aware of any blood pressure control problems, and of any compliance problems or of the co-morbidities that the patient has. Patients appreciate the continuity of care and can contact the nurse if they have any problems. All patients are reviewed by a consultant at least every six months.

Contact: Michaela Dicks, Anaemia Management Nurse, Exeter Kidney Unit

Email: Michaela.Dicks@rdehc-tr.swest.nhs.uk

Patient involvement

Patient agenda forms have been shown in both primary and secondary care to increase patient and carer involvement in consultations and to enable patients to ask the questions they want to (McKinley et al 1999; Cunningham and Newton 2000; Russell et al 2003). Patients have the form before the consultation and make a list of questions and points they would like to cover.

Forms are available from the Medicines Partnership website at <http://www.medicines-partnership.org/projects/current-projects/agenda-forms>.

Concordance discussions on diabetes in community pharmacies

Since 2002, more than 100 community pharmacists throughout the country have been offering 'concordance discussions' on diabetes as part of a scheme organised by the Pharmacy Alliance. Patients with diabetes are asked, when visiting their community pharmacy, to complete two questionnaires. The results enable a discussion about whether patients have received sufficient information on their condition and its treatment, and an exploration of patients' health beliefs, which may highlight issues of compliance and concordance. Patients are also asked about their glucose monitoring and whether they have had HbA1c measured in the last six months. Where appropriate, the pharmacist will respond to the patient's concerns, referring to the GP where necessary. Patients are followed up after one and three months. The service has been developed in collaboration with patients' GPs and other healthcare professionals.

Contact: Ziba Rajaei-dehkordi, Professional Services Manager, Pharmacy Alliance, Cox Lane, Chessington, Surrey KT9 1SN

Email: ziba@pharmacyalliance.co.uk

Patients' Own Drugs in hospitals

Patients' Own Drugs (PODs) schemes allow medicines brought into hospital by patients to continue to be used during their stay as an inpatient. Using PODs saves time both at admission and discharge. It also reduces wastage and hospital expenditure on drugs (Semple 1995). Use of PODs on 11 wards saved one NHS Trust more than £45,000 in 1998-9, an amount well in excess of the staffing costs to run the scheme (Dua 2000).

A 2002 survey of hospitals found that 77% had PODs schemes (Ansar and Silverthorne 2002) with a further 12% intending to set one up before the end of 2002. Each patient's medicines are assessed (usually by pharmacy staff) and, if the quality is considered satisfactory and the medicine is still required, it is used while the patient is in hospital and after discharge. If patients run out of their medicines while in hospital, normally a 28-day supply is issued. Responses to the Medicines Management Framework developed by the Department of Health have shown that the majority of Trusts will have schemes in place to use PODs by end 2004.

Pharmaceutical industry resources

An invitation was sent to pharmaceutical companies, through the Association of the British Pharmaceutical Industry, to provide examples of their resources relevant to the diabetes, renal and long-term conditions NSFs. The examples below are from the companies that responded.

Information for patients

Booklets for patients who are on haemodialysis or on continuous ambulatory peritoneal dialysis (CAPD).

A series of booklets: Living with PD (An introduction to Peritoneal Dialysis), intended as an introduction in the prescreening stage with peritoneal dialysis (PD); Living with PD (Care and Support), designed for patients in the introductory stages of their treatment; Living with PD, for use at pre-treatment and treatment stages.

Contact: Gambro Renal Products

Email: info@gambro.com

Diabetes

'Know where you are', a series of booklets for patients, developed with input from diabetes specialist nurses, includes understanding Type 1 diabetes; what is a hypo?; and looking after yourself.

Contact: Aventis.

Request via www.aventis.co.uk

Education for patients

A programme of nurse-led training for patients on device use for epoetin beta in renal disease and enhancing patients' self-administration techniques.

Contact: Roche Products Ltd

Education for health professionals

Diabetes

'Insulin made easy' materials.

Contact: Aventis.

Request via www.Aventis.co.uk

Materials for health professionals

Diabetes Suitcase

Servier produced its Diabetes Suitcase in collaboration with Diabetes UK and Warwick Diabetes Centre to support health professionals running clinics for people with Type 2 diabetes. The kit contains practice record cards and a wheel with WHO diagnostic criteria. Patient materials include a CD-ROM containing 'healthy eating guide' leaflets in English, Urdu, Punjabi, Bengali, Hindi, Gujarati and Mirpuri. Each leaflet discusses foods appropriate to the culture of that particular group. Leaflets can be printed in the clinic. Posters on healthy eating are also available in a range of languages.

Contact: Servier

Request via www.servier.com

Care pathways

Peritoneal dialysis – an integrated care pathway to enable identification and management of patients from early identification to treatment.

Contact: Gambro Renal Products

Email: info@gambro.com

Service development

Multiple Sclerosis Partnership Programme (MSPP)

Schering Health Care sponsors a team of 16 nurses to provide support to patients with MS on all therapies under the direction of the local neurologist. All MSPP nurses participate in a training programme on specific treatments and clinical data and attend an education programme run by the MS Trust.

Some patients encounter difficulties in taking disease modifying treatments (DMTs) for multiple sclerosis due to side-effects and injection site reactions. In areas where the MSPP is active, the compliance rate among patients taking DMTs for multiple sclerosis is maintained at 95–98%.

Contact: Schering Health Care via www.schering.co.uk

Community pharmacists and diabetes

Community pharmacies in Yorkshire and Derbyshire are working with GSK to provide a diabetes monitoring service. The pharmacists undertake training and are provided with equipment to measure glycaemic control (HbA1c testing equipment), blood pressure and body mass index. After seeing the patient, the pharmacist provides a report to the patient, the GP and the PCT.

Contact: Pharmacy Adviser, GSK

Practice guidance and resources

Resource pack on diabetes for community pharmacists

Resource pack ‘Diabetes services: a guide for community pharmacists’ describes the NSF for diabetes standards, provides practical guidance on ideas for service development, reviews the evidence base, and provides examples of existing schemes and template protocols. It is produced by the Pharmaceutical Services Negotiating Committee.

Available at <http://psnc.org.uk>

Guidance on early identification of diabetes by community pharmacists

The Royal Pharmaceutical Society and Diabetes UK have produced practice guidance on early identification of diabetes.

Royal Pharmaceutical Society (2001). Practice Guidance on early identification of diabetes by community pharmacists.

RPSGB has also produced practice guidance on Testing Body Fluids (March 2003), Blood Pressure Monitoring (January 2003) and Cholesterol Monitoring (June 2003), available at www.rpsgb.org.uk

Community Pharmacy Medicines Management – a resource pack for community pharmacists

A resource produced by the Pharmaceutical Services Negotiating Committee, the National Pharmaceutical Association, RPSGB and the Centre for Pharmacy Postgraduate Education is available at the medicines management project website. This is a practical ‘how to’ guide on what to do when starting up a medicines management service in a community pharmacy. It covers assessment of premises, training and development needs, what medicines management service to deliver and how to plan for and conduct the patient consultation. It includes checklists to help with assessments and contains sample forms for documenting care issues, the action required and the desired outcome.

http://www.medicinesmanagement.org.uk/pdf/resource_pack.pdf

<http://www.managingmedicines.com/tools.php>

Prompts and reminders

This section contains examples of innovative methods involving patients and health professionals.

Text messaging to communicate with patients from a hospital outpatient clinic

Mobile phone and text messaging are more widely used by patients than email and internet. Text messaging is being used in clinical practice as an easy and convenient way to keep in touch with patients to communicate test results and ask about progress (Pal 2000). The example here is from rheumatology but could apply to many clinical areas. Patients are given a card with a mobile number they can use to text their consultant 3-4 days after their investigations to get their results and information about any follow-up action or advice. Patients are sent a text message with their results and any subsequent course of action required. They can text to report whether or not any treatment or intervention has been successful. The consultant reports being able to discharge “a sizeable proportion of patients” following text message reporting. Feedback from patients and GPs has been positive. Software programs and standard message options to suit most circumstances are being developed.

Contact: Badal Pal, consultant rheumatologist, South Manchester University Hospitals Trust.

Email: badal.pal@smuht.nwest.nhs.uk

Computerised diabetes monitoring and prompts

Practices in a Personal Medical Services pilot in Surrey are using a specially-devised computer protocol to ensure that NSF standards are met for diabetes care. The computer automatically checks for and requests data including blood pressure, lipids and blood tests for the control of diabetes. If the tests have not been performed, or the results are higher than normal recommended values, they are highlighted so the GP or nurse seeing the patient can take appropriate action. Additional medicines can be prescribed if necessary. The system also checks to ensure that people with diabetes have had appropriate clinical examination of their eyes and feet annually. It will also review people with diabetes who have hypertension to ensure they are taking aspirin prophylaxis. Diabetes audits have already shown the positive effects of introducing the computerised prompts.

Contact: Dr Stewart Tomlinson

Email: stewart.tomlinson@gp-h81072.nhs.uk

Repeat prescribing system review

The National Prescribing Centre has produced guidance and a resource on repeat prescribing: Saving time, helping patients: a good practice guide to quality repeat prescribing
http://www.npc.co.uk/repeat_prescribing/pdf/repeat_prescribing_document1.pdf

Self-administration of medicines in hospital

Self-administration of medicines (SAM) schemes enable patients to administer their own medicines while in hospital. Combining SAM with reuse of patients' own drugs means patients can continue to use medicines they are familiar with during their hospital stay (Semple 1995). The benefit of SAM is that patients maintain control of their medicines. Any changes in treatment while in hospital can be discussed and implemented with each patient's involvement. It also means that when patients are discharged from hospital, they are informed about changes to their treatment and are much more likely to take their medicines as intended.

A 2002 survey of hospitals found that 48% had a SAM scheme in place (Ansar and Silverthorne 2002) with a further 15% intending to set one up before the end of 2002. There is evidence that most patients would like to self-administer their medicines in hospital, and that doing so increases satisfaction with overall care and with the discharge process (Deeks et al 2000).

Self-medication in Parkinson's Disease

Ensuring that patients receive their medicines at the correct time to maintain control of involuntary movements is critical for the effective management of Parkinson's Disease. On average, patients take their medicines four times daily but some need to take them as many as 14 times a day. Making sure this happens in hospital is a challenge. A new scheme is being piloted where people in hospital who have Parkinson's Disease will access their medicines from their own locked cabinet and self-medicate. The scheme was developed following feedback from 250 service users showing that only 52% received their medicine at the correct time. Contact: Parkinson's Disease Society

Email: enquiries@parkinsons.org

Reference: Secondary care and medication: Involving the User. The experience of people with Parkinson's Disease in hospital. Parkinson's Disease Society. 2002

Service development

Community involvement in developing a diabetes service in community pharmacy

Greenlight pharmacy in Camden has worked closely with members of the local Bengali population and the PCT to develop a service for patients at high risk of Type 2 diabetes. The pharmacy measures blood glucose and blood pressure. Records are kept in the pharmacy and patients are followed up by the pharmacist to monitor progress. The pharmacy employs a technician who speaks Bengali and this enables enhanced communication between patients and the pharmacy (see also Education and training – for patients). The community pharmacist works closely with GPs in the area to ensure that management of diabetes is part of an integrated pathway of care.

Contact: John Foreman or Tim O'Donoghue, Green Light Pharmacy

Email: john.foreman@lineone.net

Community involvement in developing diabetes and heart disease services

Community groups in South East Sheffield – including the over-50s Bangladeshi women’s group, Somalia women’s counselling group and Imams at local mosques – have been involved in developing new services to reach marginalised multicultural populations who do not readily access traditional care. The services aim to identify people with undiagnosed diabetes and heart disease and those where it has been diagnosed but is poorly controlled. The service will be provided in several settings, including a community pharmacy and the local Health Bus, which, in collaboration with local elders, will be located at local mosques and in the community.

Contact: Dianne Judge, Nurse Consultant, South East Sheffield PCT

Email: dianne.judge@sheffieldse-pct.nhs.uk

Community pharmacy service based on patient feedback

Following feedback from patients with diabetes, a Derbyshire community pharmacist started making contact with patients and key people in primary and secondary care in an attempt to improve communication across all sectors. He supported patients with their medicines and made them aware of the importance of selecting appropriate over-the-counter medicines when necessary. He checked whether they had discussed aspirin and cholesterol with their GP. Medicine labels were used to support patients by including the purpose of the medicine and printing labels with large lettering where needed. Working with the local practice nurse, he supported newly-diagnosed patients and those with Type 2 diabetes being transferred to insulin therapy. Local GPs sought his advice about selection of oral antidiabetic medicines. Links to preventive services were made by checking that the patient had seen the optometrist within the last 12 months and also by making referrals to podiatry.

Contact: Mark Bowyer

Email: mark.bowyer@ntlworld.com

Shared care guidelines

Shared care guidelines are developed when sophisticated or complex treatments that were initiated in secondary care are then prescribed by a GP. The guidelines set out the process that needs to be followed for the GP to take on prescribing responsibility. The term ‘Effective Shared Care Agreement’ (ESCA) is now being used.

Midlands Therapeutic Advisory Committee (MTRAC) Policy on ESCAs

Successful shared care arrangements enable the combination of the best of both primary and secondary care for the benefit of the patient. They allow the seamless transfer of patient treatment from the secondary care sector to general practice. While protocols and guidelines may be useful, they, in themselves, do not constitute an adequate basis for shared care operations. Effective shared care relies on ESCAs. Here are some recommendations from MTRAC:

- *Individual, patient-by-patient arrangements*
ESCAs should be patient specific and encompass all aspects relevant to that particular patient.
- *A reasonably predictable clinical situation*
Clinical responsibility should be considered for transfer to primary care only where it is agreed that the patient's clinical condition is stable or predictable.

- *Willing and informed consent of all parties*
This includes patients, carers and doctors. Consenting parties must have sufficient, accurate and timely information in an understandable form. Consent must be given voluntarily.
- *A clear definition of responsibility*
The shared care arrangement should identify the areas of care for which each partner has responsibility and where, if appropriate, the specialist resources are available to the GP. This should be patient specific.
- *A communication network*
Agreed communication should include a telephone contact number for use when problems arise, and fax and email numbers if appropriate. Progress reports should be produced to an agreed time-scale with regular review.
- *A clinical summary*
This should include a brief overview of the disease and more detailed information on the treatment being transferred for which each partner has managerial and clinical responsibility. At a minimum, it should identify the product's licensed indications, therapeutic classification, dose, route of administration and duration of treatment, adverse effects (their identification, management, importance and incidence), monitoring requirements and responsibilities, clinically relevant drug interactions and their management, storage and reconstitution of product, peer-reviewed references for product use, and contacts for more detailed information.
- *Emergency support*
Contact numbers should include those for out-of-hours queries.
- *Training*
Any training required by GPs and their staff should be identified and provided to a satisfactory standard by the specialist department seeking the shared care arrangement.
- *Funding*
It should be recognised that resources available in practices and Trusts are not uniform. Funding difficulties should be directed to the PCT.

ESCAs form an essential component of the wider concept of disease management. The issue of patient safety is always paramount.

So far, MTRAC has produced 16 ESCAs including one for darbepoetin.

<http://www.keele.ac.uk/depts/mm/MTRAC/Guidance/esca.htm>

Other sources for shared care guidelines

A series of shared care guidelines and summary cards covering 21 medicines including ciclosporin and erythropoietin has been produced by the South & West Devon and East Cornwall Shared Care Working Group. www.sw-devon-ha.swest.nhs.uk

Forty-four shared care guidelines including dopamine agonists, pergolide, pramipexole and ropinirole produced by a number of local organisations can be accessed through the UK Medicines Information website. www.ukmicentral.nhs.uk/guide/scp.asp

Thirty-four shared care guidelines including ciclosporin, erythropoietin, and riluzole have been produced by the Northern and Yorkshire Regional Drug & Therapeutics Service. http://www.nyrdtc.nhs.uk/publications/shared_care_guidelines/shared_care_guidelines.html

Supplementary prescribing

Supplementary prescribing operates through a three-way partnership between an independent prescriber (a doctor or dentist), the patient and a supplementary prescriber (a registered nurse or pharmacist who has completed the required training, including a period of supervised practice). It is a voluntary partnership to implement an agreed patient-specific Clinical Management Plan. It is anticipated that chronic conditions such as diabetes, asthma, hypertension, renal disease and neurological conditions will be key early areas for supplementary prescribing.

Useful information on supplementary prescribing including a Guide for Implementation is available at <http://www.dh.gov.uk/PolicyAndGuidance/MedicinesPharmacyAndIndustryServices/Prescriptions/SupplementaryPrescribing/fs/en>.

A resource document on supplementary prescribing was produced by the National Prescribing Centre in 2003: *Supplementary prescribing: a resource to help health professionals to understand the framework and opportunities* and can be downloaded from www.npc.co.uk

Pharmacist-led hospital clinic for people with diabetes

A pharmacist-led clinic was set up at Harrogate NHS Trust to improve hypertension control and reduce cardiac risk in patients with diabetes. Patients with Type 1 and Type 2 diabetes are referred to the clinic from the consultant endocrinologist's outpatient clinic and from diabetic nurse specialists at the hospital. The pharmacist measures blood pressure, adjusts treatment using an evidence-based algorithm, checks lipid levels and adjusts treatment. Results from the first 47 patients showed significant improvements in blood pressure control and reductions in total and LDL cholesterol levels. The service may now be extended to include direct referral from GPs for the treatment of resistant hypertension in patients with diabetes.

Contact: Candy Norris, Pharmacy Department, Harrogate NHS Trust

Email: candy.norris@hhc-tr.northy.nhs.uk

Waste reduction strategies

Several systems are being used by PCTs to reduce wastage of medicines. These include Repeat Dispensing (See Pharmacist support for GPs and the Medicines Management Collaborative and the work of the Medicines Partnership Taskforce.)

DUMP (Disposal of Unused Medicines) campaigns have been a regular feature in many areas for some years. Some areas have audited the reasons why unused medicines were returned. Others have gone a step further and taken actions to reduce waste.

Waste campaign in conjunction with community pharmacists

Community pharmacies in Southampton are taking part in a DUMP campaign with an added component. Patients are asked if they are willing to leave their name and surgery details with the pharmacist (this is optional and the reasons for it are explained). The pharmacist can then discuss their medicines with the GP. Some 95% of patients who returned unwanted medicines left their details with the pharmacist, suggesting that patients welcome the pharmacist's help to raise issues about medicines with their GP. Knowing which medicines patients have returned has enabled practice-based pharmacists to update each patient's records so these medicines are no longer on the patient's current repeat list.

Contact: Chris Sutton

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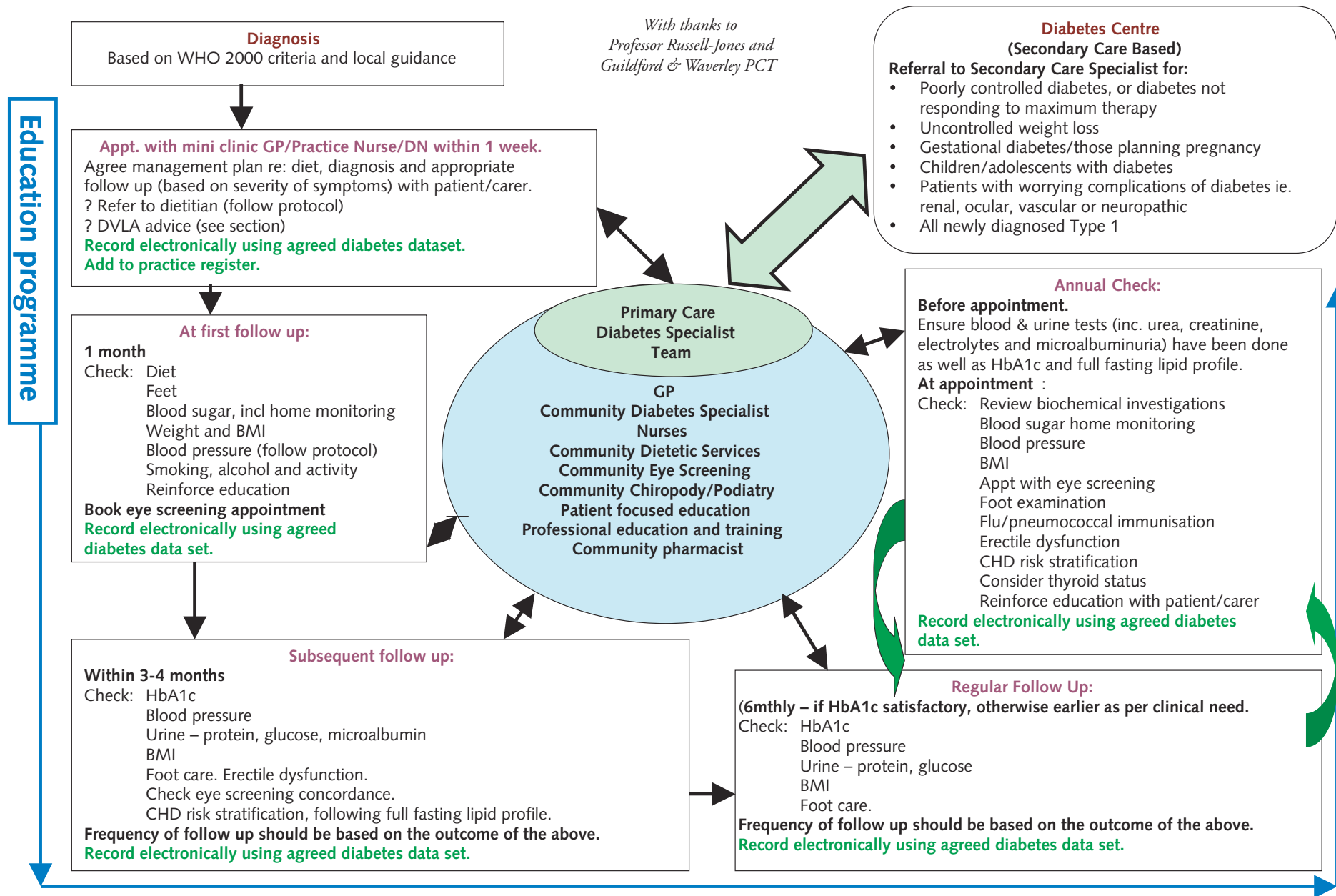
'Whole systems' examples

Parkinson's Disease

The regional Parkinson's Disease (PD) service based at University Hospital Lewisham is one of the few combined (neurologist with interest in PD and consultant for care of the elderly), 'all age', multi-disciplinary clinics. There is active input from specialist PD nurses. The service is underpinned by audit and database work. Information recorded for each patient includes demographics, details of PD and other treatments, side-effects, quality of life scales, PD severity scale, PD sleep scale and caregiver stress. Regular meetings with the local PD Society branch and with primary care services help to consolidate the care provided. Information sheets have been produced for GPs on the use of newer drugs in PD. Feedback from patients has been very positive.

Contact: Dr Ray Chaudhuri, Consultant Neurologist

Figure 7. Diabetes integrated care pathway (Primary Care Pathway) – 2003



7 Next Steps: A Framework for Action

Assessing medicines' management at organisational level

The Medicines Management Framework for hospitals and the National Primary and Care Trust Development Programme (NatPaCT) competency framework on medicines management, pharmacy and prescribing are key self-assessment tools. Both give organisations an overview of medicines management capabilities and a starting point for action planning.

The **self-assessment tool for Medicines Management in hospitals** was issued by the Department of Health in 2001. The second edition was launched in September 2003, drawing on experience since 2001. The framework seeks to promote developmental standards of good practice, and it enables hospitals to self-assess their medicines management systems against good practice standards. It has two main purposes:

- to make clear to Trust Chief Executives their responsibilities for the management of medicines within their Trusts and the related health economy
- to assist Trusts in developing systems ahead of the Value for Money audits planned for 2005.

The framework's principal domains are: senior management involvement; information, finance and business planning; medicines policy; procurement of medicines; designing services around patients; influencing prescribers and training; and managing risk.

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4072184&chk=RuVaBK

The National Primary and Care Trust Programme (NatPaCT) provides organisational development support to PCTs. The **NatPaCT PCT Competency Framework** is a self-assessment and support tool to help PCTs deliver medicines management priorities. The framework is built around several competency domains.

A set of medicines management, pharmacy and prescribing competency descriptors and demonstrators is available on the NatPaCT website for PCTs to self-evaluate and develop an action plan. The competencies for the medicines management subdomain of the medicines management, pharmacy and prescribing domain are:

- M2.1 Effective management of clinical and cost-effective use of medicines.
- M2.2 The PCT makes appropriate and effective use of information, including financial information, about the use of medicines.
- M2.3 The PCT has formal mechanisms to formulate prescribing guidance and to prioritise medicines use.
- M2.4 The PCT engages with and positively influences all categories of prescribers.

- M2.5 The PCT actively develops a range of medicines management services to address varied patient and service need.
- M2.6 Effective provision of professional pharmaceutical support to all community health services staff.
- M2.7 The PCT has in place suitable systems and processes for the safe, appropriate use of all medicines used within the PCT.
- M2.8 The PCT is aware of and responds to national developments and reports that relate to any relevant aspect of medicines management in community health and social care.
- M2.9 The PCT identifies and responds to the pharmaceutical issues relating to the social care for its population.

www.natpact.nhs.uk

Priorities for local action

The framework below can be used by Local Implementation Teams to identify and prioritise areas for local action.

	Diabetes	Renal disease	Long-term conditions
Effectiveness of treatment			
Guideline implementation			
Managed introduction of new drugs			
Treatment review			
Patient involvement			
Concordance			
Evidence-based medicine and patient choice			
Review of treatment			
Patients as teachers			
Safety			
Medication errors			
Medicines of 'high' risk'			
Side-effects			
Shared care guidelines			
Communication			
Integrating community pharmacists			
Between health professionals, patients and carers			
Between health professionals			

	Diabetes	Renal disease	Long-term conditions
Education and training			
Structured education for patients and carers			
Health professionals			
Access			
Repeat prescribing systems			
Out-of-hours medicines access			
Information for patients			
Support for patients in medicine taking			

What a good medicines' management programme looks like

Patient perspective

- Different treatments have been discussed, including relevant non-pharmacological approaches.
- The patient knows why the medicine has been prescribed.
- The patient knows when and how to take the medicine.
- The patient knows about likely common side-effects from the treatment and what to do about them.
- The patient knows how long treatment is likely to continue.
- The patient knows what tests are needed and what the numbers mean when test results come back.
- The patient has access to high quality evidence-based information about the condition and about treatment.
- The patient knows what he/she can do for himself/herself that will help.
- Medicines are reviewed at regular intervals.

Processes at primary care practice level

- Computer list and patient notes list of medicines match.
- Quantities of repeat medicines are synchronised wherever possible.
- Allergies are recorded in the patient's notes.
- Each practice has a written repeat prescribing protocol and there is evidence of staff awareness of, and adherence to, its contents.
- Controlled drugs are managed according to current guidelines and regulations.

- There are systems for checking patients' understanding of medicines recommended and changes between secondary and primary care – patients can tell you what they are taking and what they are taking it for.
- There is active communication with local pharmacists.

Processes at PCT level

- There is evidence that the medicines management programme is based on identifying and meeting patient need.
- Medication review systems identify patients who need review and there is evidence that reviews are conducted at an agreed frequency.
- The needs of patients for whom English is not their first language, and/or whose health literacy level is low, are considered when developing methods of providing patient information.
- Hospital discharge planning is effective.
- Effective medicines management should lead to a reduction in GP visits for chronic conditions.
- Audit of evidence-based prescribing demonstrates value for money.
- There is evidence from audit that NICE guidelines are being implemented.
- Effective shared care agreements are in operation.
- Community pharmacists' contribution to patient care is maximised.
- There is evidence of patient involvement in the PCT's medicines safety strategy.

Processes at hospital level

- An accurate medication history is taken on admission.
- A medication review is carried out and medicines are rationalised.
- Patient self-administration of medicines is implemented where appropriate.
- Medicines are reviewed at the time of discharge with effective communication with primary care (GP or community pharmacist) over any changes in the patient's medicines and doses.
- There is effective patient counselling on discharge, with consideration given to the needs of patients with low health literacy and those for whom English is not their first language.
- For inpatients there is an assessment, using a structured protocol, of the patient's medicines support needs in the community.
- Patients are followed up in the appropriate setting (primary or secondary care).
- There are systems to ensure evidence-based prescribing.
- There is evidence from audit that NICE guidelines are being implemented.
- There is an established mechanism to interface with local PCTs.
- Effective shared care agreements are in operation.

Relevant outcomes

Results of a successful medicines management programme:

- Improved patient experience and satisfaction.
- Better patient health outcomes.
- Reductions of unused waste medicines returned to community pharmacies.
- Intended medicines usage as described in NSF's.
- Improved patient understanding about their medicines so that patients are able to state what medicines they are taking and what they are taking them for, resulting in improved compliance.

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