National study

Managing patients' medicines after discharge from hospital

October 2009

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- Driving improvement across health and adult social care.
- Putting people first and championing their rights.
- Acting swiftly to remedy bad practice.
- Gathering and using knowledge and expertise, and working with others.

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Summary

Why did we carry out this study?

A large proportion of the UK population is taking a medicine, and the number of medications prescribed is increasing. Managing medicines when a patient is transferred from one setting to another is central to safe, high-quality care. It is also an area where considerable efficiencies could be made, by reducing avoidable hospital admissions.

Our approach

This study looked at what organisations were doing to ensure the safety of patients who had been discharged from hospital with a change of medication, along the key steps of the pathway in this process (see figure 1). This report sets out our findings from visits to 12 primary care trusts (PCTs) – including a survey of their GP practices, analysis of national datasets, and research exploring the experience of patients.

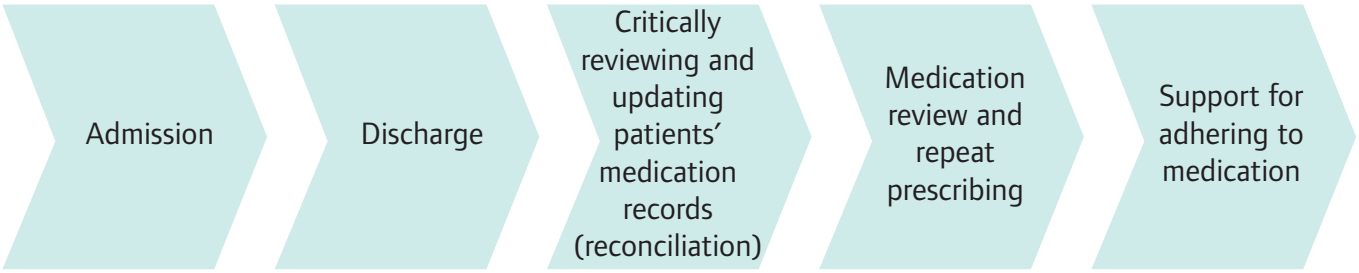
Key findings

In general, there were good systems in place to ensure the safety of repeat prescribing, and to ensure that reviews of medication for high-risk patients took place after their discharge from hospital.

However, our study raises concerns about a number of areas in the medicines management process that occur between general practices and hospitals. In particular:

- Acute trusts need to improve the quality of information sent to GPs in discharge summaries, and PCTs need to ensure that better information is sent to hospitals on admission, particularly in emergency cases.
- PCTs need to collect and use information on whether GPs and hospitals are sending the right information to each other, on time, and take action when GPs do not meet expectations and acute trusts fall short of their contractual obligations.

Figure 1: The medicine pathway across admission and discharge



- PCTs need to ensure that there are safe processes in place for critically reviewing medication changes and updating patients' records after they are discharged.
- Acute trusts and GPs need to ensure that they communicate more effectively with patients about their medicines, both at and after discharge.
- GPs need to report to their PCTs and the National Patient Safety Agency when things go wrong. PCTs need to analyse and share learning from reported incidents.
- PCTs need to make better use of the information they already have about the performance of their GPs in relation to medicines management, to improve care for patients.

Information shared on admission

A patient's existing prescriptions may be incompatible with their treatment in hospital, so it is important that complete information is shared on the medication they were taking before being admitted.

Eleven of the 12 PCTs we visited had little or no reliable, systematic knowledge of whether GPs were sending the correct information at the right time to hospitals. However, GPs themselves reported that they are providing most of the relevant information to hospitals when referring patients in non-emergency cases: 98% provide a list of all medicines currently prescribed for the patient, which is good; but a minority (11 to 24%) do not systematically provide information on co-morbidities, allergies and drug reactions, which is particularly important to ensure safe care.

The approach to providing information for people admitted in an emergency tends to be too slow and informal, which is of concern. However, a few PCTs, in conjunction with their local acute and ambulance trusts, had introduced ways of helping patients to communicate which medication they were taking by operating 'patient's own drugs' (POD) schemes. These schemes encourage patients to bring their usual medicines (in their original container) into hospital with them from home, and are particularly beneficial for patients admitted in an emergency when there may not be the opportunity to get information quickly from a GP.

Information shared on discharge

If hospitals do not share information with a patient's GP about changes to medicines prescribed, it will increase the risk of the GP prescribing incompatible medication, with potentially severe adverse impact on patients.

Acute trusts needed to improve the timeliness with which they share discharge summaries with GPs, but most importantly, they needed to improve the information they provide on changes to medication. In our survey, 53% of GP practices reported that discharge summaries were received in time to be useful either "all" or "most" of the time. Only 27% of GP practices reported that discharge summaries were "hardly ever" or "never" inaccurate or incomplete; and 81% of practices reported that details of prescribed medicines were incomplete or inaccurate on discharge summaries "all" or "most" of the time.

The new standard contract for NHS-funded hospital care sets out specific mandatory obligations to share discharge summaries with a patient's GP within 72 hours of discharge, and to include a summary of diagnosis and details of any medication prescribed at the time of the patient's discharge. Of the 12 PCTs we visited, 11 were using the new contract, but the majority were not monitoring the situation effectively. Firstly, they were not collecting good monitoring information. Only four PCTs had audited the quality and timeliness of discharge summaries and were able to use the results to provide a view of current performance. Secondly, PCTs were not tackling concerns over discharge performance, for example, at a formal contract monitoring committee meeting. Only two PCTs were able to provide any evidence of discharge information being discussed, despite evidence indicating potential contractual breaches in the majority of PCTs we visited.

Two of the PCTs we visited were encouraging acute trusts to provide timely and accurate discharge information by including financial penalties or incentives within their local discharge protocol, which is good practice.

Updating patients' medication records after discharge from hospital (reconciliation)

Once a discharge summary is received by the GP practice, the information on changes to medication needs to be critically reviewed and incorporated into the GP's patient record, so that appropriate changes made to medicines during a patient's stay in hospital are continued as intended by the hospital prescriber. This process is central to reducing the risk of medication error; if not carried out, in more extreme cases, this could result in patients taking duplicate medicines or taking medicines that are incompatible, which increases the risk of complications.

A large number of practices were not operating to an agreed protocol for reconciliation: only half of the PCTs we visited provided GPs with any specific guidance on reconciliation, and in these PCTs the majority of GP practices were not aware of the guidance. In the six PCTs where no guidance on reconciliation had been issued, only 25% of GP practices had set out their own guidance. Furthermore, eight of the 12 PCTs visited had no systems to monitor reconciliation and none were able to provide evidence to confirm whether reconciliation was timely or accurate.

GPs and other clinical staff took responsibility for reconciliation in the majority of practices, but a small number of practices (17%) delegated the responsibility for medicines reconciliation to managerial or clerical staff. These practices must ensure that clinical staff carry out proper cross-checking.

Repeat prescribing

The repeat prescribing arrangements that a patient has with their GP before hospital admission present a risk to their safety if medication is altered during a hospital stay and repeat prescriptions are not quickly changed. Appropriate authorisation needs to be granted for any new repeat prescriptions, and a time limit set beyond which no more repeats may be issued. Repeat prescriptions can introduce risk because they reduce the need for GPs to interact with their patients, and because they could be inadvertently continued after changes to intended medication are made. Any repeat prescribing arrangements, therefore, need to be monitored closely.

All 12 PCTs had either produced guidance on repeat prescribing or had encouraged GP practices to develop their own guidance based on the PCT's guidelines. The majority of GP practices (87%) had a protocol for repeat prescribing. However, key requirements such as the competencies required to authorise repeat prescriptions, drugs not suitable for repeat prescribing and recommended treatment period, were absent in 32% to 45% of practices.

Nine of the PCTs we visited provided evidence of having audited repeat prescribing, and eight PCTs reported that they or their practices had completed an audit of Clopidogrel – a drug used in the treatment of patients who have recently had a heart attack or stroke. However, there was little available evidence of changes having been made as a result.

Medication review

Once someone has returned home on their new medication regimen, a healthcare professional should review their medication to check that it is having the best possible therapeutic effect, discuss side effects and also spot potential problems.

Nationally, over 95% of GP practices are meeting the Quality and Outcomes Framework (QOF) targets that require a medication review to take place every 15 months for at least 80% of patients who are prescribed repeat medicines. In fact, our survey showed that performance seems considerably better than that set out by QOF, with an average of 57% to 63% of GP practices conducting a medication review within the first month of discharge from hospital. Over 70% of the GP practices surveyed said that they discuss patients' experience, side effects, drug monitoring, test results and length of treatment during medication reviews "most of the time".

The majority (10 out of 12) of the PCTs we visited provided GP practices with some form of written guidance for medication review and in nine out of these 10 PCTs, GPs were prioritising patients for review, on the basis of population group, medical condition, or type of medicine. However, only one PCT monitored both the timeliness and quality of medication reviews.

Supporting patients to adhere to their medication regimen

It is important that patients are given clear information about their medicine and possible side effects, and then have an opportunity to discuss how the regimen is working out.

At a national level, however, between 11% and 34% of people say they were not given enough information on leaving hospital, and patients were provided with copies of discharge letters (as stipulated by the NHS contract and constitution) in only seven of the 12 PCTs we visited.

Medication reviews provide a forum for patients to discuss any concerns they might have with their GP and identify changes needed, but only 55% of practices said that patients are present during medication review "most of the time"; and 5% said patients were "hardly ever" present.

All the PCTs we visited had some other mechanisms in place to pick up on whether particular groups of patients were following their medication regimen, and all either employed or commissioned pharmacists, nurses and matrons to support patients. However, there was a great variation in the way pharmacists were used, which reflected the fact that the pharmacist resource available to practices varied by a factor of 10 across PCTs. In the best PCT, pharmacists reviewed patients with complex medication needs, undertook home visits and identified potential changes in treatment. Community (high street) pharmacies can also talk through medications with patients in 'medicine use reviews', but the take-up of these has been slow, as not all community pharmacies are accredited to provide this service, and the number of accredited pharmacies varies greatly by PCT.

Learning from incidents and errors

Despite the fact that 90% of the contact that patients have with the NHS is within primary care, only 2,165 incidents involving errors in medication were reported from general practice last year and 657 (7.8%) of GP surgeries do not meet the relatively low QOF requirement to carry out a minimum of 12 'significant event audits' (SEAs) within three years. All of the PCTs we visited had developed initiatives to encourage GPs to report incidents and share learning, which is good. However, only eight had systematically collated, analysed and benchmarked their number of incidents; five had evidence of analysing SEAs for trends; and only one PCT could show us evidence that it had taken action to improve its medicines management as a result of learning from its own incidents, which is a wasted opportunity.

There are a number of areas where PCTs need to improve how they govern, monitor and manage contracts with acute providers, and how they target resources. It is essential that PCTs hold GP contractors and acute trusts more effectively to account on how they share information when a patient is admitted and discharged from hospital. The PCTs we visited were monitoring aspects of how GPs deliver care, but they needed to set expectations for, and gather more comprehensive information on, the quality (as opposed to just the timing) of medication reviews. And, given its fundamental importance to safety, they needed to develop expectations for reconciliation processes within GP practices, and monitor these.

The learning from monitoring had only resulted in improvements in care to a limited extent. PCTs were not making effective use of information already locally available: for example, a number of PCTs were not analysing the audit data or information on significant events that was available to them. PCTs need to focus on setting action plans and driving improvement in medicines management, based on local learning.

Our study highlights the potential of national systems such as the QOF and the electronic patient record. The QOF requirements that relate to the medicines care pathway appear to 'set the bar' quite low, and they should be tightened to cover quality as well as timing issues and reflect what is already being done in the better GP practices.

IT systems have the potential to significantly improve communication between acute trusts and GPs. The movement towards standardised electronic discharge summaries should be encouraged. By granting all local partners immediate access to individual patient records, the proposed electronic patient record will considerably improve the communication of medicines-related information across organisations for all patients and types of admission. Aspects of the national programme for IT (NPfIT) that enable electronic communication between different care settings and professionals, such as the summary care record (SCR), should be given high priority.

This study highlights the errors that can be made when patients move from one care setting to another, and the importance of a good transfer of information and good checking systems, to minimise risks. All organisations involved in providing, commissioning, regulating, and setting standards for care need to pay particular attention to these interface issues, to ensure that care becomes safer for patients.

Recommendations

Primary care trusts should:

- Work with GPs to agree the use of standard referral forms, including a specification for the information that GPs will provide to local acute trusts when a patient is admitted, taking account of the guidance from the National Prescribing Centre. This should cover elective and emergency admissions, and set out timeframes for the provision of this information. They should then audit the use of this form, and whether timeframes are met, holding practices to account.
- Work with GPs to clarify their expectations of GP practices, in relation to reconciliation, medication review and repeat prescribing. These should be in line with national

guidance and cover the quality of processes (for example, the elements of medication review that are completed) as well as their timeliness.

- Make far better use of the information they already have on the performance of their GPs in relation to medicines management. This includes information on the quality of referrals (information on elective referrals should be readily available in electronic format from practices), information from National Reporting and Learning System (NRLS) feedback reports, local audits and QOF. All this information can be used to focus local improvement activity, through benchmarking activity, discussion in practice visits and in discussions about contracts. SEAs and incident reports should be used to promote learning across the PCT.
- Ensure that contracts with acute trusts set out the requirements and quality markers for both the timeliness and content of discharge summaries. Information on diagnosis, changes to medication and the reason for them must be included. They should put in place contract variations to set this in place at the earliest opportunity, including incentives through the commissioning for higher quality and innovation (CQUIN) system and penalties for poor contract performance.
- Review and set up better monitoring systems to ensure that acute trusts are meeting their contractual obligations regarding the content and timeliness of discharge summaries and letters. They should do this by collecting feedback from practices, through snapshot or continuous monitoring.
- Evaluate the level of pharmacist support available to them, and how this resource is currently being used, where possible benchmarking against other PCTs. They should ensure that their employed pharmacists and medicines management team focus on medicines management after discharge, to improve patient safety and efficiency.

  Such an evaluation should include:
  - Understanding how pharmacists and technicians employed by PCTs and GP practices are currently deployed, in terms of their location and type of work (for example, focus on increasing generic prescribing as compared to focus on medicines management after discharge).
  - A pharmaceutical needs assessment of their locality, to identify practices with the greatest demand for medication review, and support for elderly patients to comply with their medication.
  - Shifting and, where possible, increasing their pharmacist resource to provide more direct care to high-risk patients (for example medicine reviews), and to work with practices to improve their performance in this area and provide feedback to PCTs.
  - The level of medicine use reviews (MURs) carried out by community (high street) pharmacies, how these are targeted, and getting better feedback on outcomes when reviews are carried out.
- To ensure that information is shared more effectively, PCTs should develop patient-held systems (for example, 'green bag' schemes), and should press for the early introduction of local integrated electronic referral and discharge systems.
- Ensure that acute trusts, GPs and community pharmacies share information within the framework set out in the NHS Confidentiality Code of Practice. This sets out that information can be shared between all those working within and under contract to the NHS, for the purposes of delivering healthcare.

GPs should:

- Ensure that they carry out a higher proportion of medication reviews with the patient present, so that they can discuss the patient's experience of taking the medicines.

- Share learning, by recording instances when the medicines pathway goes wrong, and reporting them to their PCTs and the National Patient Safety Agency. This should include any issues relating to discharge summaries and incidents relating to the care they provide themselves.

Community pharmacies should:

- Report instances of prescribing error to PCTs so that lessons are learned and the safety and quality of patient care is improved.
- Ensure that the categories of patients identified by their local PCTs are offered a MUR service consultation.

Acute trusts should:

- Ensure that all their clinicians are aware of their obligations with regard to admissions and discharge arrangements. In particular, communicating with patients about their medicines, providing discharge letters to patients, and completing discharge summaries for GPs on time and to include full information on medication changes.
- Provide objective information to PCTs regarding the extent to which information from GPs is incomplete or late, for both emergency and non-emergency referrals, to drive improvement.
- Review their medicines management arrangements in readiness for the introduction of registration with the Care Quality Commission – this applies to all organisations providing healthcare, in both the NHS and independent sector. They should pay particular attention to the requirements of regulation 11 (outcome 8) as described in our consultation document *Guidance about compliance with the Health and Social Care Act 2008 (Registration Requirements) Regulations 2009*.

National bodies

- Aspects of the National Programme for IT (NPfIT) will bring about considerable improvement in the communication of medicines-related information across organisational boundaries for all patients and types of admission. The Department of Health should ensure that practitioners use aspects of the NPfIT that enable electronic communication between primary and secondary care, in particular, the summary care record (SCR) and where possible accelerate its use across different care settings.
- NHS Connecting for Health should ensure that all healthcare practitioners involved in patient care are able to record necessary information on SCR, so that other practitioners may have access to reliable information when needed.
- The Department of Health should modify the Pharmaceutical Services (Advanced and Enhanced Services) Directions 2005, to ensure that pharmacies are required to follow a PCT's notification regarding categories of patients who benefit from MUR services, rather than simply having regard to them. The related proposals in the recent pharmacy White Paper, *Pharmacy in England, Building on strengths – delivering the future* in this respect are helpful and should be introduced as soon as possible.
- The great majority of GP practices are meeting and exceeding the QOF target for some medicines indicators. NHS employers and the General Practitioners Committee should review the targets and indicators that relate to this care pathway, to set more stretching objectives that allow better discrimination and benchmarking, and that take account of national guidance and best practice, when QOF is reviewed in 2011/12. They should also set out more stretching expectations of a 'medication review', to include patient involvement, and set new measures of quality (rather than measures of timeliness).

Introduction

Just over two-thirds of the UK's population will be taking a medicine at any one time,[1] with the number of medicines prescribed per individual increasing by around 3.5% a year.[2] This increase is particularly notable for older people, for whom it is not uncommon to be taking four or more medicines at any one time.[3] Managing the way that medicines are prescribed, dispensed, administered and monitored is central to the provision of a safe, high-quality service.

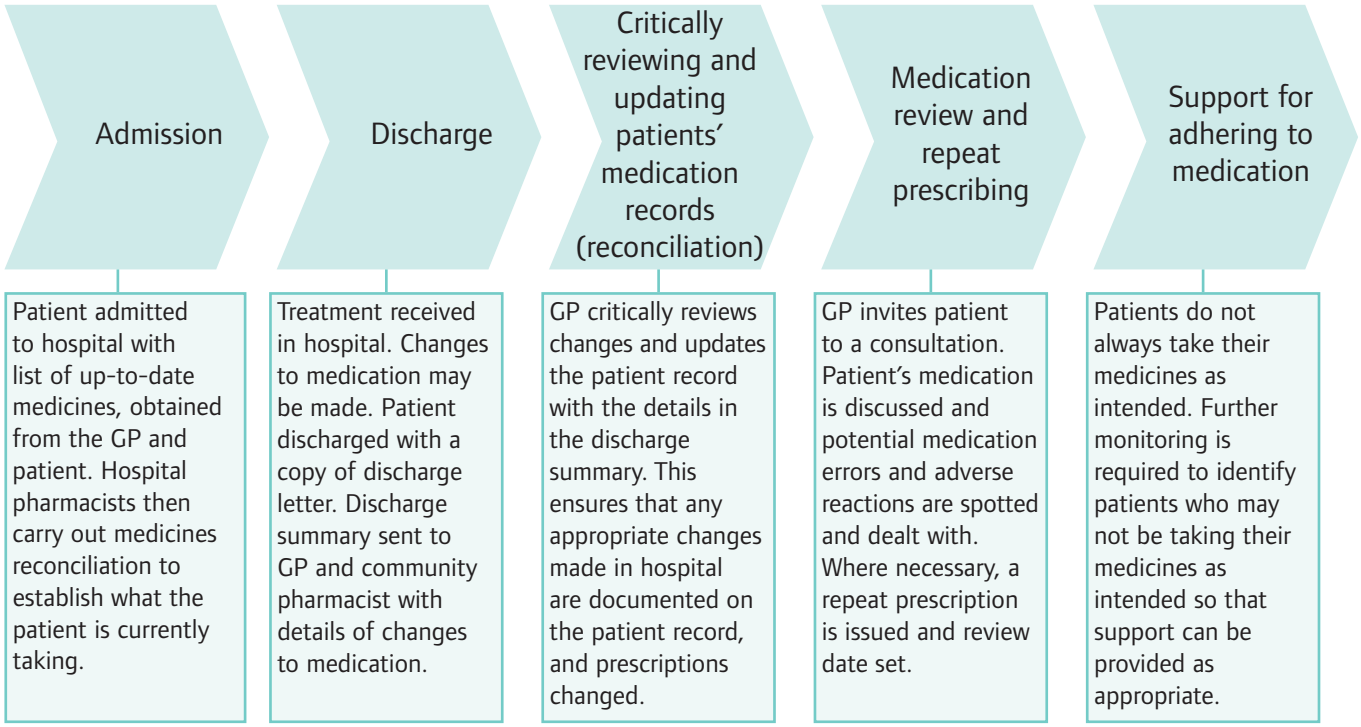
Adverse events involving medication are the fourth most commonly reported type of incident to the National Patient Safety Agency (80,150) during 2008 in England.[4] Studies suggest that almost half of all patients may experience an error with their medication after they have been discharged from hospital.[5, 6]

It is difficult to assess the level of harm to people arising from these incidents, principally due to a lack of data. However, one study estimated that approximately 4% of all hospital admissions may be due to preventable medicine-related issues.[7, 8] The same study estimates that adverse drug reactions (both preventable and non-preventable) are likely to account for over 10,000 deaths in England a year, taking account of those reactions that also occur during a hospital stay.[8]

Since there are so many preventable hospital admissions, aside from improving safety considerably, there is the potential to make considerable efficiency savings by managing patients' medicine better. Studies estimate that the annual cost of preventable medicines-related admissions in England is £466 million.[8]

There are many reasons why errors occur with patients' medication, but research into this area has helped identify particular themes. These include poor communication between teams or organisations at key 'transition points', when the responsibility for a patient's care is transferred from one place to another; a lack of suitable monitoring and review of treatment; or patients not taking their medicines as agreed.[9, 10] Therefore, when a patient is admitted to and discharged from hospital and their medication is changed, good communication between the hospital and general practitioner (GP), and good monitoring and review by GPs, are extremely important.

Figure 2: The ideal patient pathway



The ideal patient pathway

Figure 2 outlines the ideal patient pathway for medicine management from the point that the patient is admitted to hospital through to discharge and further support after discharge. As the above evidence shows, the pathway is not always followed by professionals and healthcare providers, and this can lead to harm.

This review

Given the potential harm to patients, and the considerable efficiencies to be made, the Care Quality Commission's predecessor, the Healthcare Commission, decided to carry out a review of performance in managing medicine after discharge. This has been completed by the Care Quality Commission.

We looked at how well primary care trusts (PCTs), as contractors and commissioners of both primary care and hospital care, were promoting good communication, monitoring and review between the sectors. Specifically, we looked at:

- Information about the referral of patients that is provided by GPs to acute trusts.
- Information provided by acute trusts to GPs and patients when they are discharged.
- GP's systems and processes for medicines reconciliation and repeat prescribing.
- The systems and processes for following up medication review and supporting adherence.
- Learning from incidents.
- PCTs' own arrangements for establishing and monitoring contracts to reinforce safe practice.

Evidence shows that medicines-related admissions are more likely to involve some drugs than others. For example, anti-platelets, non-steroidal anti-inflammatories (NSAIDs), diuretics and anti-coagulants together account for approximately 50% of preventable drug-related admissions,[11] and these drugs are in common use (often in combination) among older people. Some aspects of our review therefore focused on the experience of older patients recently discharged from hospital with high-risk drugs.

This report sets out our findings from visits to 12 PCTs, including a survey of GP practices at each PCT visited, analysis of national datasets, and research that we commissioned to explore the experiences of individual patients, to provide a commentary on national performance. The report sets out a number of recommendations to be considered and acted upon by PCTs, acute trusts and other organisations.

We have also developed a self-assessment tool to help PCT commissioners and medicines management teams consider their own performance. Each question in the tool sets out acceptable performance, signposting users to published guidance where appropriate. This tool will be available online at www.cqc.org.uk.

1 Providing information on medicines to acute trusts

If accurate, timely information on medicines is to be passed back to a patient and their GP when they are discharged, it is essential that good quality data accompanies the patient on admission.[12]

If a hospital does not have complete information on the medication a patient was taking before admission, this can cause harm. A patient's current medications could be incompatible with their treatment or any new prescriptions (see case study 1). Studies suggest that discrepancies between what medicines a patient is taking and what the hospital has actually recorded might affect 19-54% of admissions[13, 6] with approximately 40% of these considered to be potentially harmful to the patient.[6] An underlying issue is that information provided to acute hospitals remains patchy and inconsistent.[13, 14]

The guidance issued by the National Institute for Health and Clinical Excellence (NICE) and the National Patient Safety Agency (NPSA) requires all healthcare organisations that admit adult inpatients to have a policy in place for medicines reconciliation on admission.[15] The policy should set out systems for collecting and documenting information about current medicines and that pharmacists are involved in medicines reconciliation as soon as possible after admission.

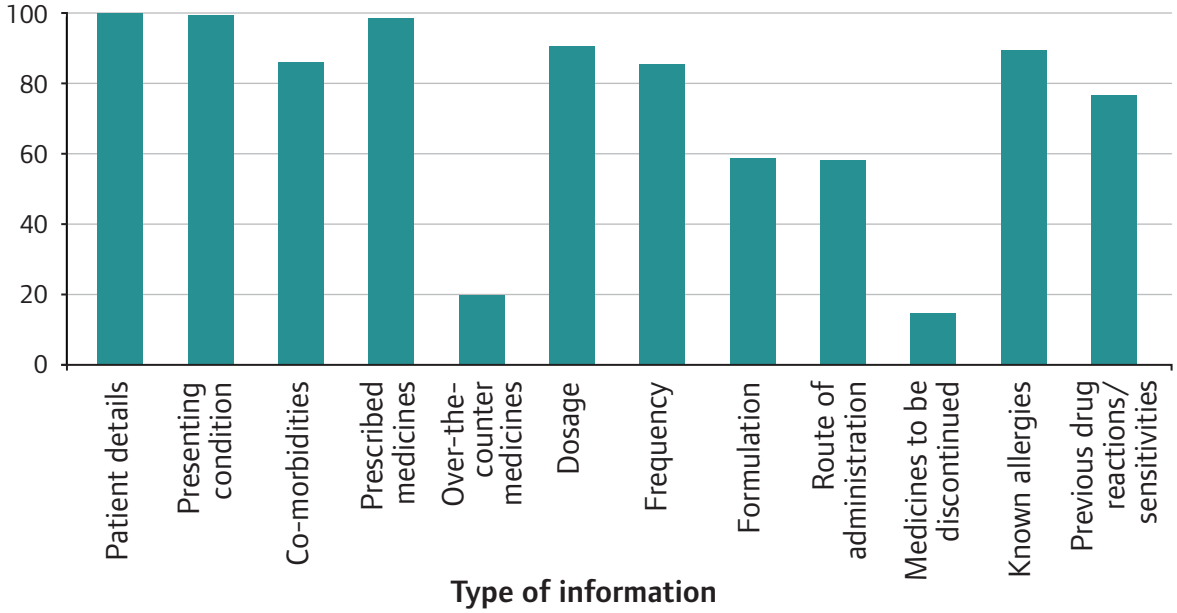
Case study 1: Hospital not being aware of all the medication a patient is taking

Two of the 18 patients we interviewed reported that the hospital was not aware of all the medication that they were taking. In one case, the patient was prescribed incompatible medicines. He continued taking steroid medication for his arthritis after recovering from a knee operation. The medication prolonged the healing of a wound caused by the operation. This meant that he was in hospital for several months.

Overall, we found that GPs provided many aspects of relevant information to acute trusts when they refer patients in non-emergency cases (see figure 3). Ninety-eight per cent of GP practices reported that they provide a list of all medicines currently prescribed for the patient, 90% provide the dosage of all listed drugs and 85% provide the frequency of all listed drugs. However, far fewer provided information on:

- Medicines that should be stopped – only 14%.
- Formulation and route of administration – 59%.

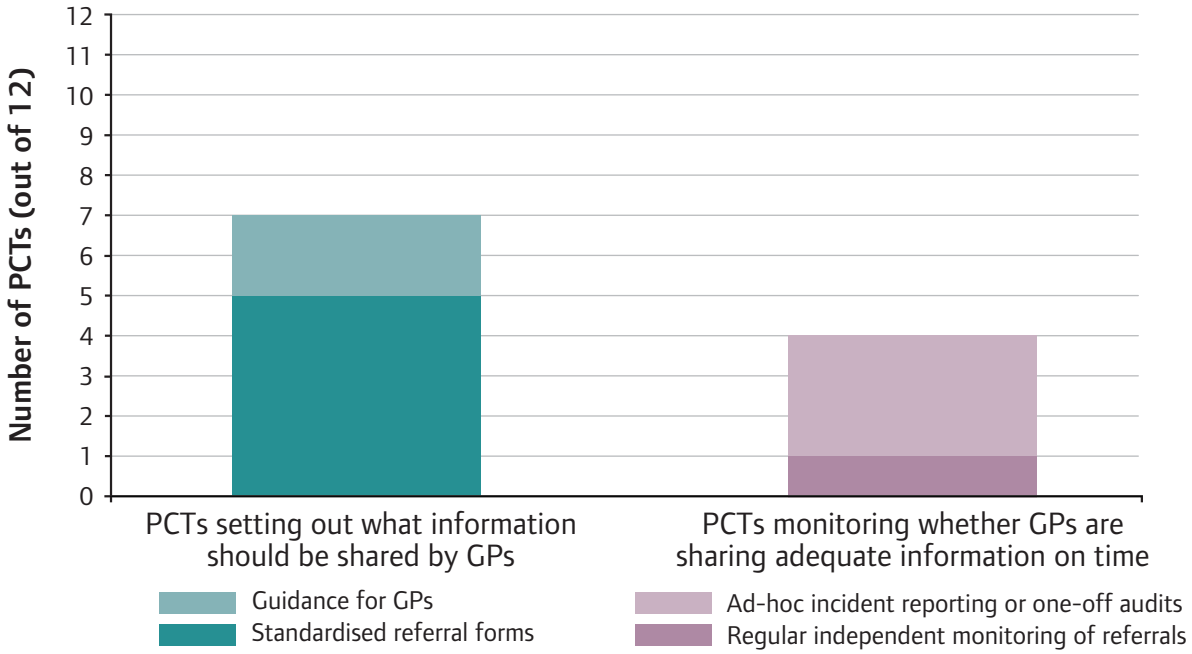
Figure 3: Information provided by GPs when patients are referred to hospital for elective admissions



Furthermore, although the majority of GPs reported that they provide information on co-morbidities, known allergies and previous drug reactions, there are a considerable minority (14%, 11% and 24% respectively) of GPs who did not systematically provide this information. This is concerning, since this type of information is particularly important to ensure safe care.

Emergency admissions present particular challenges for the transfer of information about medicines that patients are taking. They account for 40% of all admissions into acute hospitals,[16] and will disproportionately affect high-risk groups being treated on multiple medications in the community. We found the approach for providing information on medicines to acute trusts for emergency admissions tended to be too slow, and informal. Acute trusts usually requested clinical information from GPs the following day, but there were no clear requirements to avoid a delay in obtaining information over a weekend.

Figure 4: The number of PCTs providing guidance or monitoring information that GPs include in referrals



The role of primary care trusts in providing guidance, monitoring and leading change

The flow of information between GPs/out-of-hours services and acute trusts should be governed by clear guidelines to ensure consistency and promote patients' safety, for both elective and emergency admissions. Only two primary care trusts (PCTs) provided GPs with guidance, but a further five of the PCTs we visited used standardised referral forms, which helped to capture all the necessary information (see figure 4). However, in some cases forms did not cover all acute services, or only applied to a percentage of practices.

It is essential that PCTs hold their contractors to account for the care they provide, particularly when it can impact on safety. However, only one of the PCTs that we visited had reliable, systematic knowledge of whether GPs were sending the correct information at the right time (see figure 4).

Case study 2: Peer review of referrals

NHS Plymouth PCT has a contract with a not-for-profit company that ensures that complete information is provided to the acute care trust for all elective admissions. GPs use the company's pro-forma for almost all elective referrals; it is a practice-based commissioning requirement. The pro-forma requires standardised patient information, including information on current medication and known drug allergies or side effects and body mass index, blood pressure and smoking status. All pro-formas are peer reviewed through the company, and any which have incomplete information are returned to the practice for correction before the admission can proceed. Only 3% of referrals were returned at the last check.

Developing extra ways of communicating drugs regimens

As mentioned above, there are different ways of getting information to the acute hospital – one is via the GP, and the other is via patients themselves. A number of PCTs have introduced ways of helping patients to communicate what medication they are taking. A few of the PCTs we visited, in conjunction with their acute and ambulance trusts, operated 'patients' own drugs' (POD) or 'green bag' schemes. These schemes encourage patients to bring their usual medicines (in their original container) into hospital with them from home. This helps to ensure that acute trust clinicians understand what has been prescribed, and in addition, any over-the-counter drugs the patient may be taking. One of the PCTs also had a 'yellow key fob scheme' for patients with long-term conditions, which helped information on care plans to be communicated.

The schemes are particularly beneficial for patients admitted in an emergency, when there may not be the opportunity to get information quickly from a GP. For such schemes to be successful, PCTs need to work in partnership with all the stakeholders in their health economy – particularly ambulance trusts, patients, their families and carers, and care homes – so that the patient, or those people accompanying them to hospital, know that they should take the medicines or information with them.

Case study 3: Green bag scheme or patients' own drugs

Patients are encouraged to bring their own medicines (in their original containers) from home to the hospital, in a specially branded carrier bag. Patients are told about this at pre-admission assessment or by correspondence. For emergency admissions, green bags are carried by ambulance crew and are used to collect medicines upon arrival at the patient's home. The scheme is likely to be more successful if governed by an agreed protocol between all relevant agencies in the health economy.

Case study 4: Yellow folder scheme

Patients with long-term conditions have their emergency care plan (which is updated monthly) with them at home at all times. This is placed in a specially branded yellow folder. Paramedics are briefed to pick this up if the patient is admitted in an emergency.

"You're given a little yellow book 'anticoagulant log' when you are given Warfarin which I carry around with me… it's the bible that you have to have… having this book with you explains to any paramedics what you're on and what procedure you need to go through. It also tells me how to take it."
(Patient with an irregular heartbeat)

In summary, GPs are sharing appropriate information on medicines when a patient is admitted, although some aspects relevant to safety of care are not always included. GPs and PCTs need to agree expectations for the information provided to acute trusts, including information on co-morbidities, allergies and drug reactions. PCTs should systematically monitor and hold GP contractors more effectively to account on this matter, as it is so critical to safety. Also, far greater attention needs to be paid to timely information sharing in emergencies – introducing patient-held information can help, and a number of PCTs have introduced ways of helping patients to communicate information about their medicines to acute trusts, for example 'green bag' schemes.

2 Providing information when a patient is discharged from hospital

During a patient's stay in hospital, their medication may be changed.[17] To ensure that ongoing care is consistent with any new regimen that is introduced in the hospital, good information on medication changes should be sent to GPs when a patient is discharged.

Problems may arise when discharge information is either late or incomplete. A survey by the NHS Alliance reported that 70% of GP practices were sent discharge summaries late either "very often" or "fairly often"; 39% of practices reported instances where this failing had directly compromised patient safety.[18] Another study found that when changes were made to patients' medication during emergency admission to hospital, almost a third of patients were readmitted within two weeks of discharge – they had reverted to pre-admission medication because repeat prescriptions were not amended. This was partially attributed to a failure to provide timely discharge information to the patients' GPs.[17] In a separate study, a third of all discrepancies in discharge information had the potential to cause possible or probable patient discomfort and/or clinical deterioration.[19] Common discrepancies with discharge information include the omission of medications,[19] failing to provide a rationale for why a patient's medication had been changed[20] and the absence of follow-up plans.[6]

In line with previous studies, our review raises concerns around the timeliness of discharge summaries. Only 53% of practices in the primary care trusts (PCTs) we visited reported that discharge summaries were received in enough time to be useful either "all of the time" or "most of the time" (see table 1).

However, GP practices reported particular concerns with the quality of discharge summaries: only 27% reported that discharge summaries are "hardly ever" or never inaccurate or incomplete (see table 2). One of the main inaccuracies that GPs reported related to medicines that had been prescribed when the patient was discharged. Eighty-one per cent of practices reported that details of prescribed medicines were incomplete or inaccurate on discharge summaries "all of the time" or "most of the time". Eighty-eight per cent of practices also reported that the summary of diagnosis was incomplete or inaccurate "all of the time" or "most of the time" (figure 5).

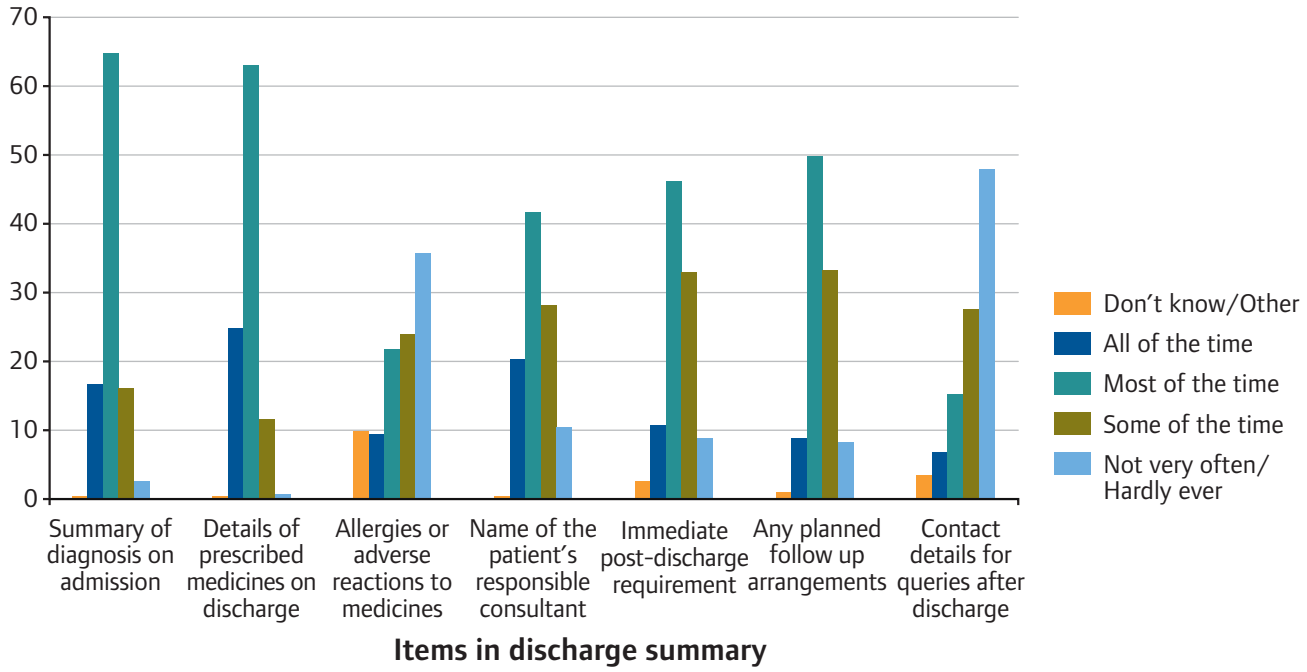
Table 1: Within your practice, over the past 12 months, how often were discharge summaries received (from the discharging provider) in enough time to be useful?

Response from 280 GP practices	
All of the time	4%
Most of the time	49%
Some of the time	34%
Not very often/hardly ever	13%
None of the time	0%

Table 2: Within your practice, over the past 12 months, how often were discharge summaries inaccurate or incomplete?

Response from 280 GP practices	
All of the time	0%
Most of the time	16%
Some of the time	56%
Not very often/hardly ever	25%
None of the time	2%

Figure 5: Within your practice, over the past 12 months, how often were the following aspects of discharge summaries inaccurate or incomplete?



The absence of accurate and complete information on prescribed medicines increases the risk that GPs will prescribe incompatible medication. This can have a severe adverse impact on patients, which may not always relate to their health (see case study 5).

The increased use of standard, electronic discharge forms can help, and the majority of PCTs we visited (eight out of 12) are using, or plan to use them. One PCT that had introduced them fully reported improvement in the timeliness and legibility of the summaries.

Case study 5: Patient's GP does not receive complete discharge summary

"The GP is the pig in the middle – the GP doesn't know any of my problems until I tell him. His notes were out of date, he thought they cured me of arthritis, and then when I went to see him he told me that I don't have notes so I gave him the discharge summary. It has got better though now and his notes are up to date. Because my GP didn't know that I was still taking medicine for arthritis my disability benefit was affected, they took away my wife's wages as a carer and they reduced my benefits by half because my GP had told them that I had been cured of arthritis. Since then, everything that happens to me I tell to the GP. I never used to check with my GP about letters until I had the problem with my disability benefits, so now I check that there's always communication between the doctors." *(Patient with mental health problems)*

Sharing discharge information with patients and pharmacists

Sharing discharge information with others can provide an additional check that subsequent prescribing is safe.

Patients themselves were receiving copies of their discharge letter in only seven of the PCTs we visited, in spite of this being a requirement of the NHS constitution and NHS standard contract for acute care. This echoes the earlier findings of the most recent NHS inpatient survey, which reported great variation in the proportion of people that said they had received copies of all letters sent between the specialist and their GP. At the highest scoring trust, 78% of people said that they had received copies of all letters. At the lowest scoring trust, this figure was just 8%.

In the PCTs we visited, discharge summaries were not regularly shared with community pharmacies. In half of the PCTs we visited, information on a patient's medication would only be copied to the community pharmacist if the patient was using a compliance aid or was prescribed a high-risk drug.

Research has demonstrated that providing information to a community (high street) pharmacist prevents potential adverse events.[21] In one study, for every 19 patients discharged, a community pharmacist identified at least one discrepancy, which if gone unnoticed, could have resulted in an adverse outcome for the patient.[22] There are a number of barriers to sharing information in this way – for example, identifying a patient's community pharmacist. However, those patients with a long-term condition are likely to have an established relationship with a particular community pharmacist. Confidentiality was raised as a barrier to information-sharing, but the NHS Confidentiality Code of Practice sets out that information can be shared between all those working within and under contract to the NHS, for the purposes of delivering healthcare.

The primary care trust's role in monitoring and driving improvement

A new standard contract for NHS-funded hospital care came into force in April 2008 – although a minority of PCTs are still tied into old contracts. The new contract for the first time sets out specific mandatory obligations relating to discharge arrangements. This includes the requirements for discharge summaries to be shared with patients and issued to the patient's GP within 72 hours of discharge. It also stipulates that the discharge summary should include:

- A summary of the key diagnosis made during the patient's admission.
- Details of any medication prescribed at the time of the patient's discharge.
- Any adverse reactions or allergies to medications or treatments experienced by the patient during admission.
- Any planned follow-up arrangements.

Nearly all (11 out of 12) of the PCTs we visited were using the new standard NHS contract for commissioning acute services. However, as discussed above, providers were sometimes falling far short of their discharge obligations. We found that the majority of PCTs were not monitoring the situation effectively.

Firstly, they were not collecting good monitoring information. Only four PCTs had audited the quality and timeliness of discharge summaries (including a robust sample of practices, with results returned to the PCT) and were able to use the results to provide a view of current performance. A further three PCTs relied on practice-based staff to raise concerns with the PCT, either through committee discussion or more formal incident reporting channels. However, 84% of practices we surveyed said that they would not inform their PCTs if discharge summaries were incomplete or inaccurate; and 86% said they were not required by the PCT to report occasions when acute trusts did not meet their discharge obligations.

Secondly, PCTs were not tackling concerns over discharge performance in discussions with the contractor – for example, at a formal contract monitoring committee. Although such meetings were taking place within the PCTs we visited, only two were able to provide any evidence of discharge information being discussed, despite evidence of potential contractual breaches relating to discharge obligations in the majority of these PCTs.

Two of the PCTs we visited were encouraging acute trusts to provide timely and accurate discharge information by including financial penalties or incentives within their local discharge protocol. While this is commendable, without accurate data on performance, these mechanisms can not be enforced: only one of the two PCTs was able to provide accurate information on current performance.

In summary, acute trusts need to greatly improve the quality of the information they provide in discharge summaries, in particular that on medicine changes. With the introduction of the standard contract, PCTs now have the right tool to set out the requirements for timing and quality of discharge information and ensure this happens locally. They also need to ensure that discharge letters are sent to patients, as required by the NHS constitution. To do this, PCTs need to greatly improve their monitoring of discharge, and focus on the discharge process as part of contract management.

The change towards standardised electronic discharge summaries is to be encouraged. The introduction of the summary care record (SCR) will improve the safety and quality of patient care. It will enable healthcare staff in all care settings to share reliable information faster and more easily, particularly when patients move from one care setting to another. In addition to ensuring timely transfer of information, this will also overcome issues of poor legibility, and should allow specific, relevant information to be conveyed to GPs on a consistent basis.

3 Medicine reconciliation after discharge

Once the discharge summary is received by the GP practice, the information on medication changes needs to be critically reviewed and incorporated into the GP's patient record. This means that any appropriate changes made to medicines during a patient's stay in hospital are continued as intended by the hospital prescriber. This process is often referred to as 'medicines reconciliation', and should include the collation of information on medicine history, checking that medicines and doses currently prescribed are correct, and making changes to the patient's prescriptions. National Institute for Health and Clinical Excellence (NICE) guidelines state that medicines reconciliation should occur whenever patients move from one care setting to another.

This process is central to reducing the risk of medication error;[9] if not carried out, in more extreme cases this could result in patients taking duplicate medicines or taking medicines that are incompatible, which increases the risk of complications.[21]

The National Prescribing Centre (NPC) recommends that practices should carry out reconciliation according to agreed local processes and guidelines. However, a large number of practices are not aware of, or operating to, an agreed protocol for reconciliation.

Figure 6: Does your PCT provide written guidance for medicines reconciliation at discharge? (Practice survey: n = 280)

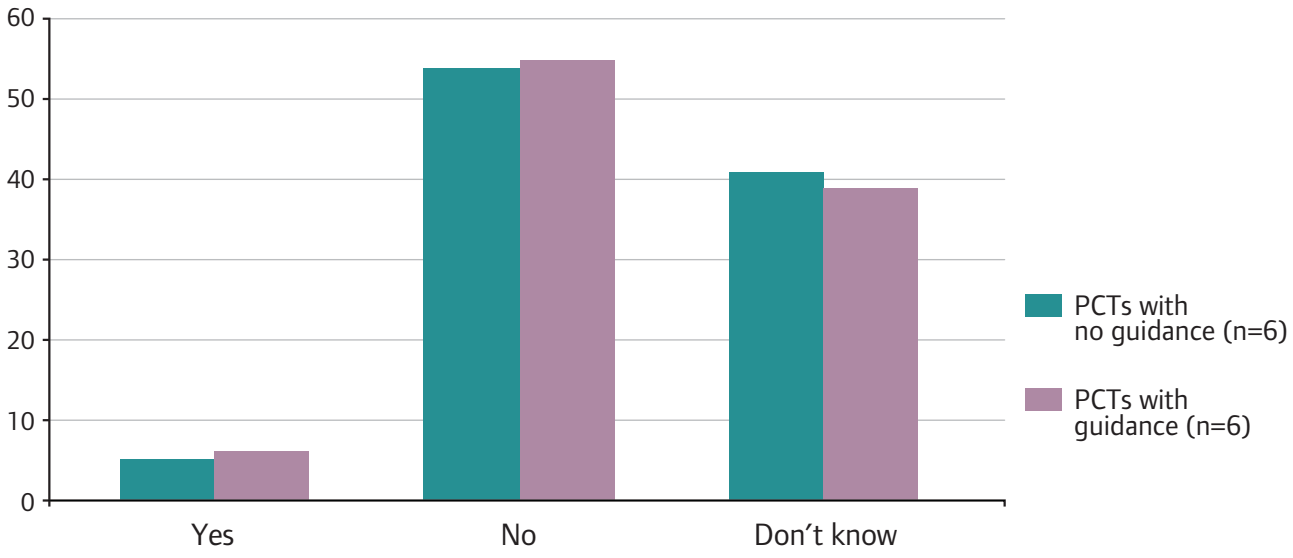
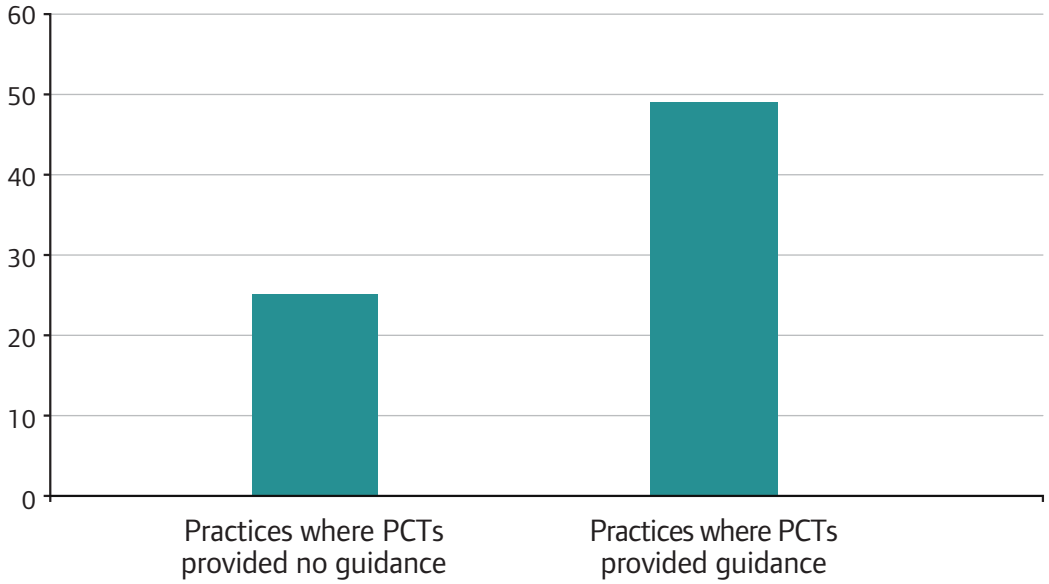


Figure 7: Does your practice have its own written policy or protocol for reconciliation? (Practice survey: n = 280)



Only half of the primary care trusts (PCTs) we visited provided GPs with any specific guidance on reconciliation, and in all PCTs the majority of GP practices were not aware of guidance (see figure 6). In the six PCTs where no guidance on reconciliation had been issued, only 25% of practices had set out their own (see figure 7).

Who is responsible for medicines reconciliation?

On average, a GP practice would receive approximately 1,645 discharge summaries per year, which would equate to around six per day*. To manage this workload, responsibility for medicines reconciliation and subsequently updating the electronic patient record may sometimes be delegated to an individual without clinical training.

NPC guidance recommends specific skills required for anyone undertaking medicines reconciliation (see box A). Medicines reconciliation requires clinical judgement and should only be undertaken by competent healthcare staff. Non-clinical staff should only undertake the administrative aspects of reconciliation[9] and good checking processes by those with clinical knowledge should always be in place.

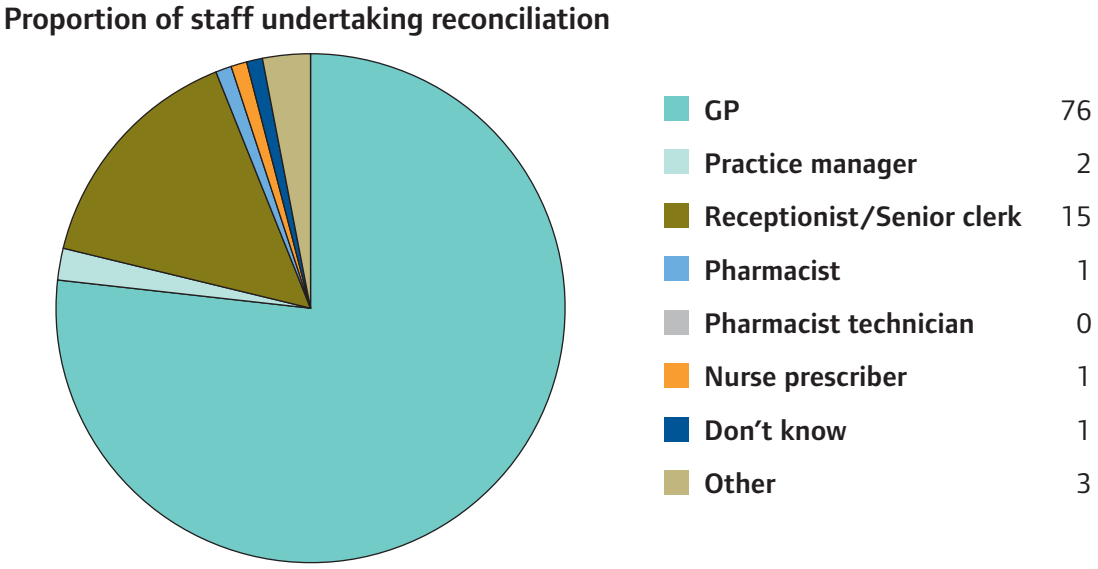
Box A: Skills required for medicines reconciliation

- Effective communication skills.
- Technical knowledge of relevant medicines management processes.
- Therapeutic knowledge.

Medicines Reconciliation: A guide to implementation, NPC, 2007

* Assuming a five-day working week and without taking public holidays into account.

Figure 8: Within your practice, who is normally responsible for undertaking medicines reconciliation on a day-to-day basis? (Please tick one option) (n = 280)



Our GP Practice Survey revealed that GPs were responsible for undertaking reconciliation in 76% of practices (see figure 8). A small number of practices reported that nurse prescribers and practice pharmacists also undertake this process. However, in 17% (47 out of 280) of practices surveyed, medicines reconciliation is undertaken by managerial or clerical staff, rather than someone with a clinical background. Unless training has been provided, receptionists and senior clerks will not commonly have the required skills or competencies for medicines reconciliation. Although clinicians provided additional scrutiny in each of these cases, we have not been able to assess the extent or quality of this oversight.

The primary care trust's role in monitoring and driving improvement

In eight of the 12 PCTs visited, there were no systems for monitoring whether reconciliation is taking place safely or effectively. Others carried out informal and random checks, but none of the PCTs we visited were able to provide evidence to confirm whether reconciliation was timely or accurate.

Medicines reconciliation, if systematically implemented and monitored, will help reduce medication error and prevent adverse drug events. GPs and other clinical staff took responsibility for reconciliation in the great majority of practices, but a number of them delegated it to receptionists and clerks which could increase the risk of errors if not properly checked. A number of PCTs had produced guidance for GPs on reconciliation, but there were a number that still needed to do so, ensuring that reference is made to the best practice arrangements set out by the NPC. PCTs also need to improve monitoring of reconciliation.

4 Repeat prescribing

The majority of medicines taken by older people[20] and those with chronic diseases are managed as part of a repeat prescription process. Repeat prescribing arrangements in existence before an admission to hospital present a risk to safety if medication is altered during a hospital stay and repeat prescriptions are not quickly changed and re-authorised. Medicines reconciliation, as discussed in the previous chapter, ensures changes are made.

Repeat prescriptions can introduce risk because they reduce the need for GPs to interact with their patients, and there is risk that they could be inadvertently authorised after a change to intended medication is made. Any repeat prescribing arrangements, therefore, need to be monitored closely.

When setting up a repeat prescription arrangement, appropriate authorisation needs to be granted and a time limit set, beyond which no more repeats may be issued unless they are re-authorised.[23] Case studies have noted inconsistencies over authorisation and patients undergoing long periods without any form of review.[24] Studies have also suggested that a breakdown in the arrangements for repeat prescribing monitoring accounts for approximately a fifth of preventable drug-related admissions[11] and just over a quarter of all adverse drug events.[25]

All the primary care trusts (PCTs) that we assessed have either produced guidance on repeat prescribing or have encouraged GP practices to develop their own local protocol based on tools and guidelines provided by the PCT. The information produced by the PCTs met a number of recommendations set out by the National Prescribing Centre (NPC) (see box B).

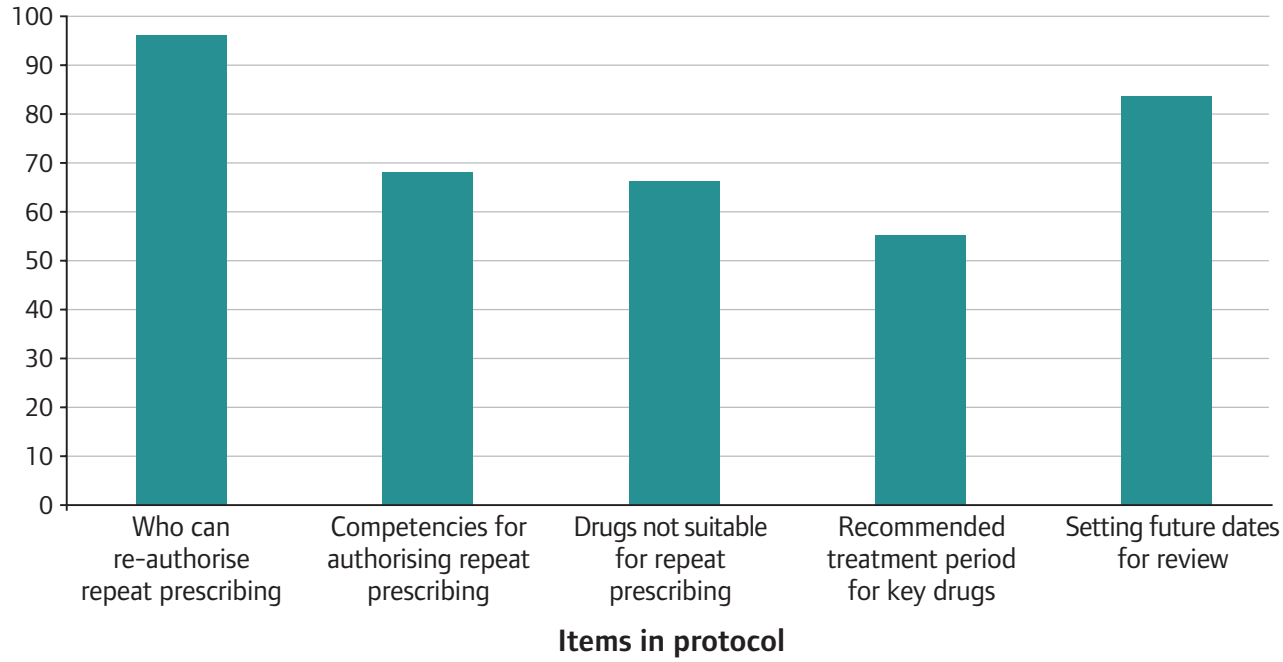
Awareness of PCT guidance was limited, with only 54% of practices claiming their PCT had produced some form of written guidance in this area. The majority of practices (87%), however, had a protocol for repeat prescribing. We asked practices whether their protocols included key requirements and found these were absent in between 32-45% of cases (see figure 9). This presents a risk of patients remaining on a repeat prescription for too long or being prescribed drugs not suitable for repeat prescription.

Box B

NPC guidance recommends that a repeat prescribing protocol includes:

- Who can re-authorise repeat prescribing.
- Competencies for authorising repeat prescribing.
- Drugs not suitable for a repeat prescription.
- Recommended treatment period for key drugs.
- When treatment should be re-authorised/ setting future dates for review.
- A requirement for regular audit of the repeat prescribing system.

Figure 9: Does the protocol/policy (either the PCT policy or the practice policy) contain information on the following items?



Case study 6: Patients were sometimes unsure whether they should be on repeat prescriptions or not

"I took them [the tablets] for six to eight weeks after coming out of hospital but then they ran out. I haven't been taking them since… I don't really know how long I was supposed to be taking them for but I assumed that if I was meant to get another prescription they would have made me an appointment. I'll just sit and wait, there's nothing you can do about it."
(Patient with heart failure)

Monitoring and audit

Nine of the PCTs we visited had audited aspects of repeat prescribing. Some of these audits were related to the Quality and Outcomes Framework for general practice (QOF).

We asked whether PCTs had completed any audits of repeat prescribing of certain high-risk drugs.[11] Many PCTs (eight out of 12) reported that they had completed an audit of Clopidogrel, a drug used for patients who have recently had a heart attack or stroke or who are at risk of one. It is often prescribed beyond recommended timescales. Only three PCTs could provide information on the outcome of their audits, which had been carried out at practice level by pharmacists. Unless practices had been given incentives, results of the audit remained at practice level and were not aggregated to give a PCT-wide picture. Clopidogrel continued to be prescribed beyond recommended timescales in two of the three cases. Despite this, there was no evidence of any action taken in response to the lapses identified through the audits.

Case study 7: Repeat prescribing monthly audit

One PCT had employed practice medicines coordinators, funded through practice based commissioning, for the sole purpose of reviewing repeat prescribing and submitting monthly audit data to the PCT's medicines management team.

In summary, all PCTs had either produced guidance on repeat prescribing or had encouraged GP practices to develop their own, and the great majority of practices were aware of a protocol for repeat prescribing. However, key information like length of treatment for certain high risk drugs, and drugs suitable for repeat prescribing was not always included in practices' repeat prescribing protocols. The majority of PCTs had audited repeat prescribing, but there was patchy evidence of change being implemented as a result of any monitoring that did take place.

5 Medication review

Once someone has returned home on their new medication regimen, a healthcare professional should review their medication to check that it is having the best possible therapeutic effect, discuss side effects and also spot potential problems. A medication review is crucial in helping patients gain a better understanding of their medication – particularly immediately after leaving hospital – and key to the safety of care. Studies have suggested that a breakdown in monitoring arrangements accounts for approximately a fifth of preventable drug-related admissions[11] and just over a quarter of all adverse drug events.[25]

Two patients we interviewed recounted instances where the lack of a review had caused them harm; other patients that had had a review reported that it had helped avoid potential problems as well as providing reassurance.

Case study 8: Missed reviews

Nobody realised that one patient was on a low dosage of Warfarin.

"When I was in hospital the first time, I was kept in for two to three days and was discharged with just that Warfarin. Six weeks later in March the same thing happened, I was rushed back into hospital, and it was almost like déjà vu… I haven't had any reviews… If there was something like that going around, then [my problem] probably would have been picked up. They could have seen my medication list and seen glaringly that I wasn't on the right amount. The period between first and second time in hospital, I never felt really well – but I thought that this was usual. I should have rung the hospital, but I didn't know better… I was a little surprised that the GP didn't flag anything up – there was a bit of finger waving between GP and hospital when I went into hospital the second time – everyone was blaming each other for not picking it up."
(Patient with an irregular heartbeat)

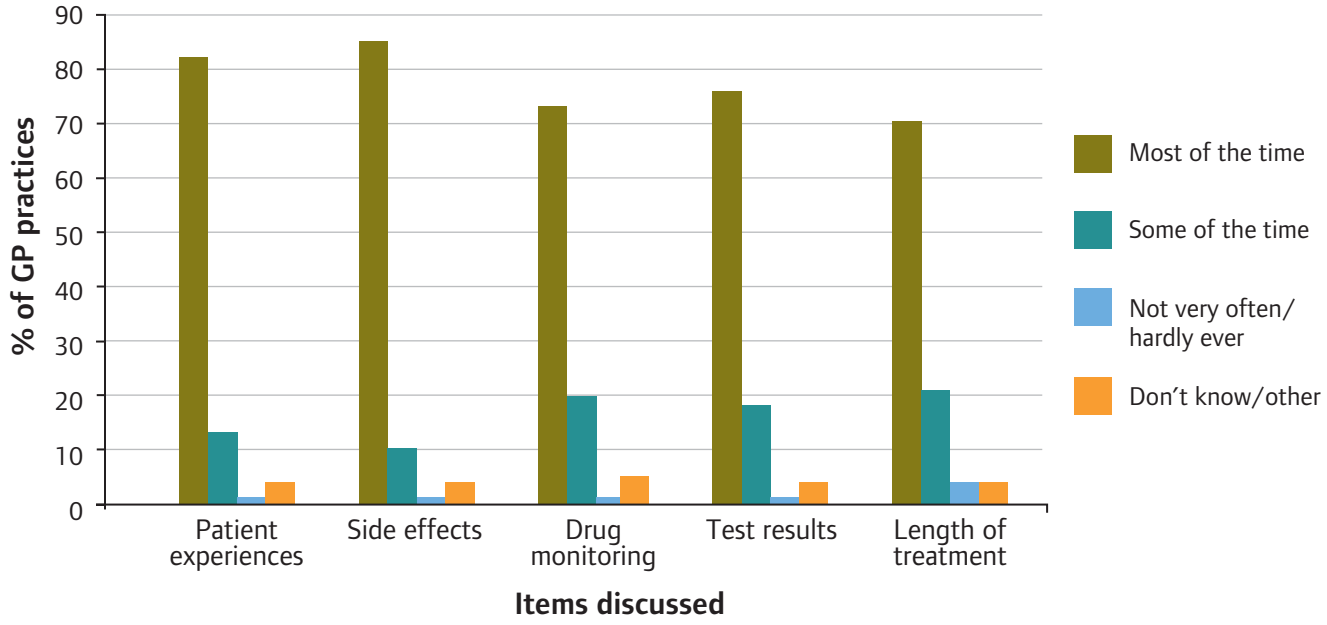
Another patient was told when he was at hospital to take the medication for six months, but then he carried on taking it for longer as he had assumed that a healthcare professional would contact him to tell him to stop or have a check-up.

"I was told that I would be taking the Warfarin for six months, but after six months had passed they didn't tell me to stop it so I carried on with it for another three weeks. In the end I started getting nosebleeds and I kept bleeding if I scratched myself. So I went to the GP and told him that I wasn't sure whether I should be on it still… couldn't understand why they hadn't told me, why did I have to go down there myself?… I assumed that the hospital would be checking that."
(Patient with high blood pressure)

A successful review

"After the treatment my GP explained to me that my blood pressure was too low because of all the drugs, so he reduced my dosage because they realised I was being overmedicated."
(Patient with heart failure)

Figure 10: GPs' responses to the question "How frequently are the following issues discussed at the medication review?"



Medication reviews can be paper-based, to check whether prescriptions are correct (prescription reviews); involve the patient, focusing on their actual pattern of medication use (concordance and compliance reviews); or involve the patient to review fully their medical condition and adjust prescriptions (clinical medication reviews). The National Prescribing Centre (NPC) advises that any review should give patients the chance to raise questions and agree any changes made, seek to improve the impact of treatment, be undertaken in a systematic way by a competent person, and be documented in the patient's notes.

The majority – over 70% – of the GP practices we surveyed said that, most of the time, they discuss patients' experience, side effects, drug monitoring, test results and length of treatment during medication reviews (see figure 10).

Timeliness of medication reviews

There are two indicators relating to medication review in the Quality and Outcomes Framework for general practice (QOF), which relate to timeliness. The target is that these should be achieved for 80% of patients. These are:

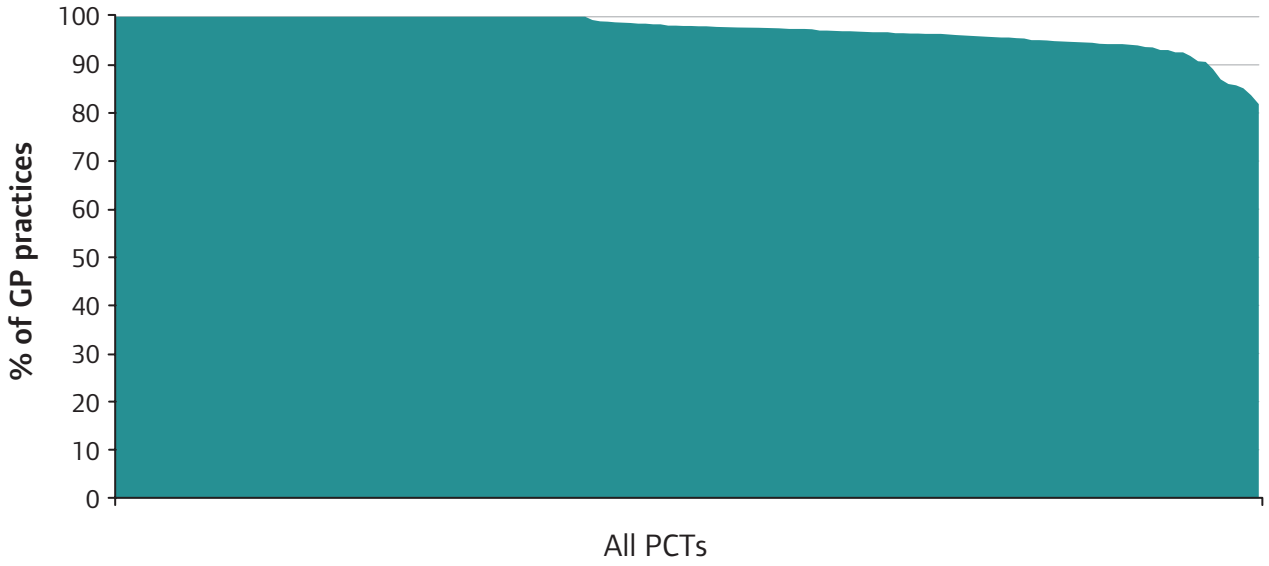
1. A medication review is recorded in the notes in the preceding 15 months for patients prescribed four or more repeat medicines. Across all primary care trusts (PCTs) in England, 95% of practices on average are meeting the target level for this indicator (see figure 11).

2. A medication review is recorded in the notes in the preceding 15 months for patients being prescribed repeat medicines. Across all PCTs in England, 97% of GP practices are meeting the target level for this indicator.

Although the great majority of practices are meeting the level required in the QOF, it has generous timescales and thresholds. Furthermore, the QOF definition of a medication review is closely related to the more limited 'prescription review' – often taking place without the patient and focusing on adjusting prescriptions.

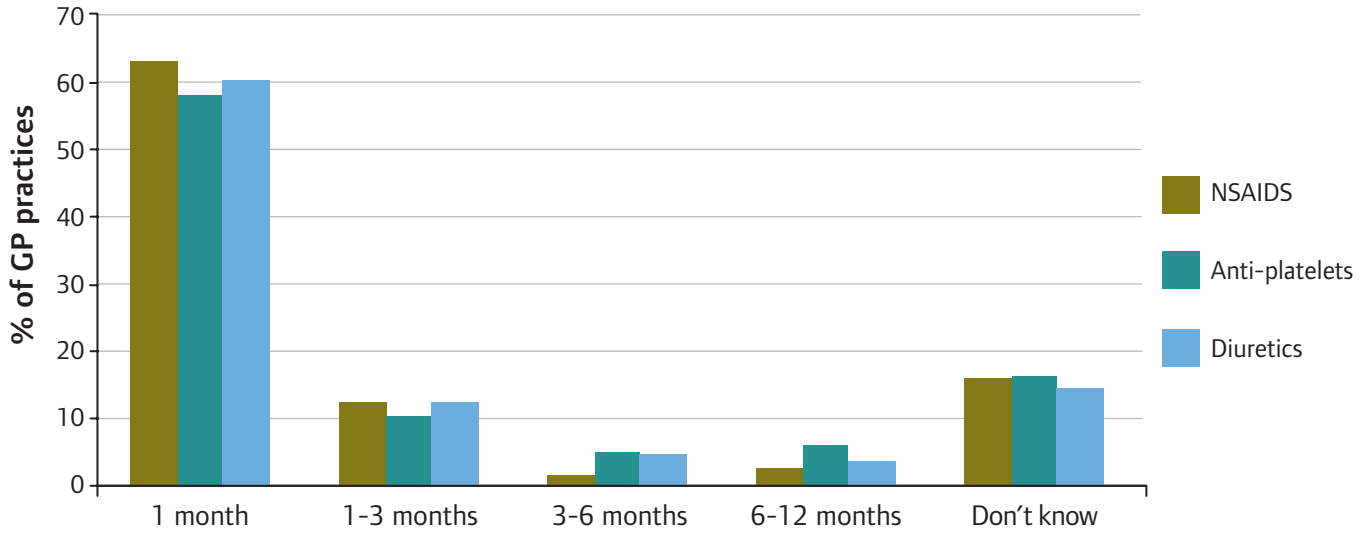
Our survey showed that performance seems considerably better than that set out by the QOF, with 57-63% of GP practices, on average, conducting a medication review within the first month of discharge from hospital for those patients aged 65 or more on high risk drugs (see figure 12). The survey shows that about 75% of practices review the medication for these patients within six months of discharge.

Figure 11: Percentage of GP practices where medication review is recorded in the notes in the preceding 15 months for all patients prescribed four or more repeat medicines



Source: QOF in 2007/08

Figure 12: If a patient aged 65 or older has been discharged from hospital with one or more of the following drug groups, how soon is their medication typically reviewed?



Policies, protocols, and monitoring

The NPC recommends that a 'medication review strategy' should prioritise patients for review, and sets out a number of 'triggers' for identifying when a review should be undertaken.

The majority (10 out of 12) of the PCTs we visited provided GP practices with some form of written guidance for medication review. In nine out of these 10 PCTs, we found evidence of prioritising patients for review, on the basis of either population group, condition or type of medicine. In five PCTs, clear timescales were additionally provided for when a review should be undertaken for priority groups – for example, patients over 75 who are taking four or more medicines should be reviewed at least every six months.

Most of the PCTs (eight out of 12) we visited were monitoring medication review, however six of these relied on the QOF process to do so.

The data provided by the QOF process is limited and does not cover whether reviews are meeting agreed quality standards, nor will it address whether prioritised patients are receiving reviews at the required frequency. Only one PCT monitored both the timeliness and quality of medication reviews.

In summary, the majority of practices were carrying out the essential elements of medication review, and a number were exceeding the QOF requirements in terms of frequency of reviews. PCTs had established policies and prioritised patient groups for reviews, and a number were monitoring the frequency of medication review, at least in terms of the QOF requirements. PCTs should also set expectations for, and monitor the quality (content and outcome) of reviews. The QOF requirements should be tightened to drive improvement, consider other national guidance and reflect what is already being done in the better GP practices.

6 Supporting patients with their medication

After returning home, some patients do not always take their medicines in the way they should. This 'non-compliance' remains a considerable cause of medication error.[26] Approximately half of older people do not take their medicine as agreed.[27] This costs the NHS between £100 million to £200 million per year in wasted medicine.[28, 29] However, this cost may be far higher when you take into account the knock-on costs from increased demands for healthcare if and when someone's health deteriorates as a result.[26]

Patients may fail to follow their recommended medication regimen due to difficulties in understanding instructions, forgetfulness, or their beliefs and preferences – particularly if medicines have side effects.[26, 30] People that we interviewed were able to identify some barriers to compliance with prescribed medication (see box C).

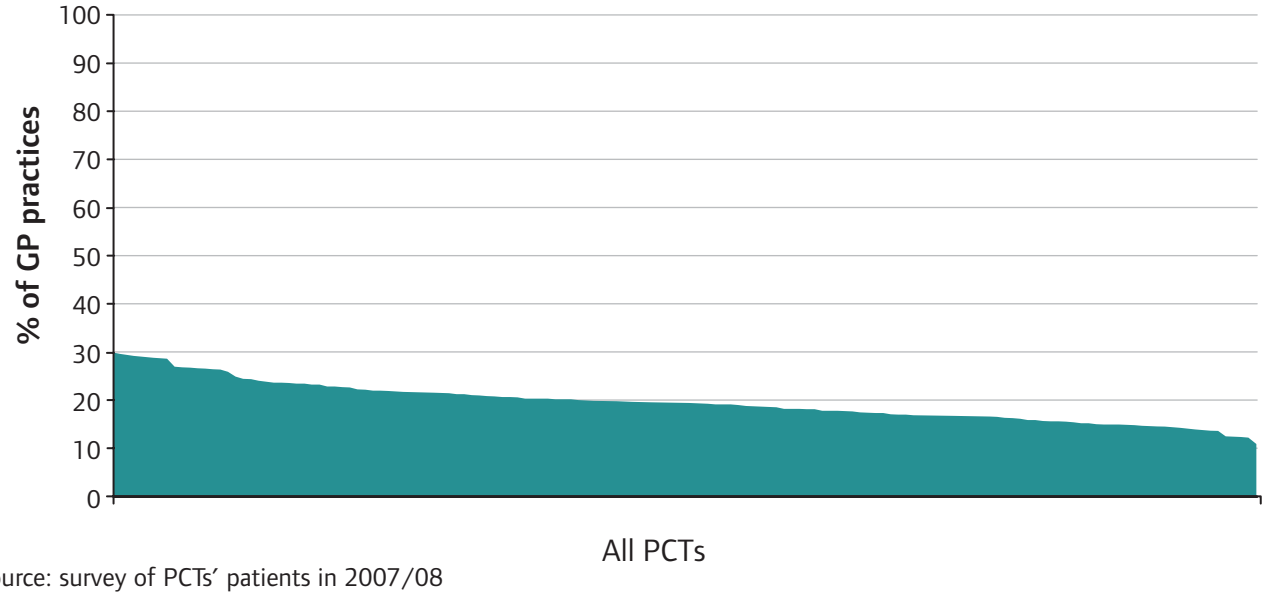
Box C: Barriers to complying with medicine regimens reported by patients

- Lifestyle issues: for example, one patient with high blood pressure who was addicted to alcohol.
- Confusion on possible side effects.
- Uncertainty about how long to take the medication for.
- Failure of systems to help patients remember to take their medicine.
- Difficulties collecting prescriptions.

It is particularly important that patients are given clear information about the purpose of their medicine and possible side effects. Despite this, national survey results show that between 11–34% of people discharged from hospital said that they were not given enough information about the purpose of their medicine (see figure 13). Five of the 18 patients we interviewed told us that they were not being given adequate information by the healthcare professionals at the hospital, and six sought additional information from other sources. This was because they felt they had not received adequate information about their medication or professionals used language that they did not understand.

As discussed in the last chapter, medication reviews provide a forum for patients to discuss any concerns they might have and to reach an agreement over their current and future treatment. However, the National Prescribing Centre recently reported that little progress had been made in adopting a more patient-centred approach to medication review.[31] When we surveyed GP practices in the primary care trusts (PCTs) we visited, it became apparent that patients are often not present during reviews. Only 55% of practices said that patients are present during medication review "most of the time", a further 36% said they were present "some of the time", and 5% "hardly ever".

Figure 13: The percentage of patients in all PCTs that said they were not given enough information about the purpose of their medicine



Source: survey of PCTs' patients in 2007/08

Practice-based pharmacists, practice and community nurses, and community pharmacists all have a part to play in reviewing and monitoring a patient's medication regimen, alongside medication reviews carried out by GPs.

Practice-based pharmacists and practice and community nurses

All the PCTs we assessed either employ or commission pharmacists, nurses and matrons to promote safe medicines management.

In all the PCTs, community/district/practice nurses and matrons took an active role in the management of medicines for patients with a long-term condition, through reviewing and changing (in the case of nurse prescribers) medication, supporting patients to take their medicines as directed and monitoring specialist medication. However, only one PCT provided information on the basis on which community matrons are commissioned.

There were many different ways that pharmacists were used to support medicine management, which reflected the variation in the number of pharmacists available to provide support across the PCTs we assessed. One PCT had a practice-based pharmacist dedicated to every practice in their patch, allowing for pharmacists to review patients with complex medication needs, undertake home visits and identify potential changes in treatment. At the other end of the scale in another PCT, practices only had pharmacist support for a maximum of two days a month each, and their role in direct patient care was far more limited and more advisory. Given the potential range of services provided by pharmacists and their importance in promoting patient safety, PCTs should review resource needs and explore establishing firmer links between the PCT's central medicines management team and local practice-based pharmacists.

Box D: Patients' experiences of being given information on medication

"You had to ask questions because all they told you was the bare minimum, like you have to take this one and then you ask, 'well why, what does it do?'" *(Patient with kidney failure)*

"The nurses might mumble something to you about what they're giving you, but they're so busy you feel you cannot ask them. So they just say that you had a stroke or something and that you need to take medicine and that's it. It can be a little nerve-wracking."
(Patient who had a stroke)

"Knowing that the heart is the most important organ, it should have been explained what the medicine is for, unless you're one of these people who actually likes reading about the medicines."
(Patient with an irregular heartbeat)

"As well as the doctor sitting down with me and going through each of the medicines, he also gave me a chart to take home with me which had each of the medicines on it and said what dosage I should have been taking, when to take it, and what potential side effects might be."
(Patient with heart failure)

"The pharmacist technician explained all about the medication and why they did the ECG and blood tests. They told me what I had to avoid when I was taking the Warfarin, like I mustn't drink cranberry juice. I thought the way they explained it to me was very good."
(Patient with heart failure)

"Sometimes the GPs are so busy that they tell you to go on the internet for more information. It's good for the things that you don't necessarily think to ask the GP – for example, when to take it. My GP told me to read the information sheet in the pack but that information is not always so clear and I don't understand all of it. Google tells you everything in a layman's language."
(Patient with high blood pressure)

"I was telling a friend that I was taking Warfarin and he tells me 'that's what they give to rats to kill them'. So I wanted to check that out and Googled it. It reassured me somewhat."
(Patient with high blood pressure)

"I'm an inquisitive person so had several chats with my GP [about the anti-depressant] and have gone on the internet. I go to the manufacturer's website, I look at case studies of people that are taking it, and any news items about it – these kinds of drugs are always in the news."
(Patient with mental health problems)

Community (high street) pharmacies

If they apply and are subsequently accredited, community pharmacies may carry out medicines use reviews (MURs). These are designed to check how well a patient is following their medication regimen, assist the patient to take their medicine, and identify issues such as side effects that might limit adherence.[32] Some of the patients we interviewed have experienced MUR and spoke highly of the service (see box E).

However, take-up of this approach has been slow:[33, 7] not all community pharmacies are accredited to provide this service, and the number of accredited pharmacies varies greatly by PCT (see figure 14). And as it is a national scheme, PCTs do not commission pharmacies to provide the service. However, PCTs do have a role to play in identifying suitable patients for review, based on an assessment of local need.[8]

Although the majority of PCTs we visited (10 out of 12) had prioritised groups for a MUR (see table 3), only two out of 10 were able to provide evidence that they had carried out any needs assessment to underpin this. Furthermore, community pharmacies are not currently required to follow PCT priorities, but have regard to them.

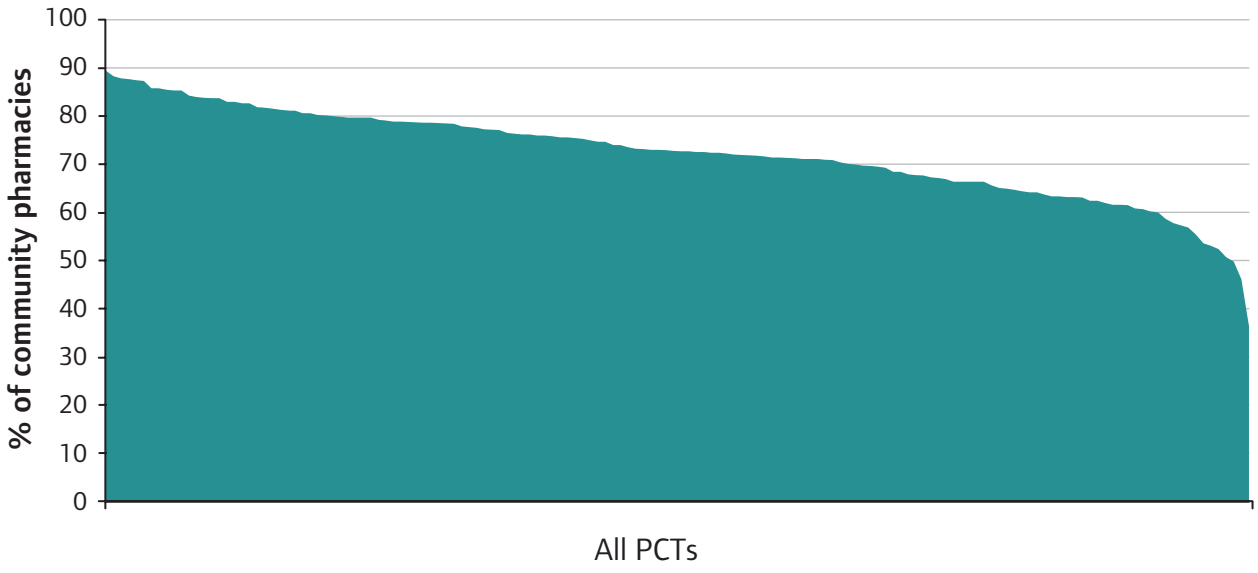
Box E: A patient's experience of medicines use review

"[The chemist] took me into a little room; it was the first time that it happened – and they make sure you know what tablets you're taking and why. I didn't really need it… but it's nice to think that they're thinking like that… now I can go to two people if I need any help – my GP and the chemist."
(Patient with high blood pressure)

Case study 9: Concordance services from third sector

Calderdale PCT commissions a 'home from hospital' service from Age Concern. The charity provides practical support for the patient discharged from hospital and works closely with ward staff and community matrons in the discharge process. Staff of the agency escalate medication issues to the community nurses. The service is part of a multi-agency programme for healthy ageing and the PCT's commissioning strategy.

Figure 14: Percentage of community pharmacies accredited to provide medicines use reviews within PCTs in England



Source: General Pharmaceutical Services in 2007/08

Table 3: PCTs' identification of priority groups for a medicines use review

Priority group	PCT 1	PCT 2	PCT 3	PCT 4	PCT 5	PCT 6	PCT 7	PCT 8	PCT 9	PCT 10	PCT 11	PCT 12
Did not prioritise										●		●
Prioritised but did not specify patient groups	●			●			●	●				
Long-term conditions		●	●		●	●			●		●	
Patients taking 4+ medicines		●									●	
Care home residents			●									
Complex medication regime						●						
Patients discharged within the last 3 months											●	
Patients aged 65+											●	

Monitoring patients' adherence to medicines regimen at a PCT level

The National Institute for Health and Clinical Excellence recommends that healthcare professionals should assess levels of adherence to identify which patients require further support. One way in which this can be achieved is through reviewing the records of prescription re-ordering, pharmacy patient medication records and the return of unused medicines.[26]

All of the PCTs assessed had mechanisms in place to pick up compliance issues for particular groups of patients. However, some mechanisms were more robust than others. Two PCTs relied solely on individual medication reviews to detect over- or under-usage of medication. Other mechanisms included audit, including monitoring of repeat prescribing, and reviews of concordance with specific medicines; reviewing the quantity of medicines taken and quantity ordered; reviewing prescribing data through ePact and retrospective case note review; and reviewing community pharmacy patient medication records. In a number of cases, it was not always clear whether and how this information was collated for analysing particular trends among population groups at PCT level. PCTs' monitoring of MURs carried out by community pharmacies was limited to the number that are completed: community pharmacies are not obliged to report the outcomes of MURs to PCTs unless an enhanced service has been commissioned from them.

Far more effective communication with patients is needed to ensure that they understand their medicines. Acute trusts and GPs need to ensure they provide better information to people about their prescriptions, and spend more time talking to patients about adherence to medication regimens. There are various professionals involved in the patient pathway who can provide this information and support patients to take their medicines, and PCTs should evaluate the pharmacist and nursing resources available across their practices and the community, and target them on the practices and the patients most in need.

7 Reporting medication incidents and errors from across the care pathway

Between January and December 2008, 863,691 incidents were reported to the National Patient Safety Agency (NPSA) from across all aspects of NHS-funded care – 9% of which related to medicine management.[4] A study of 18,000 patients admitted to two large hospitals showed that 6.5% of admissions were the result of harm from medicines, with approximately two-thirds of these thought to be preventable.[8] Based on this study, adverse drug reactions are likely to account for over 10,000 deaths per year, taking into account those reactions which also occur during a hospital stay.[8]

It is very important that organisations learn from things that go wrong. To do this, they need to: improve reporting of errors or incidents; analyse these together with other information – for example, that on complaints; share learning; and act to improve.

Improving reporting

It is particularly important that incidents relating to medicines are reported and learned from, because of the potential harm involved. However, the level of incident reporting from general practice is low and variable. Despite 90% of patients' contacts with the NHS taking place at a primary care level,[34] only 2,165 (0.25%) incidents were reported from general practice, compared to other care settings, in 2008, with a quarter of these involving a medicine.[4] Reporting levels vary across PCTs[35] (see figures 15a and 15b), but there is also considerable evidence to suggest that incidents that occur in general practice are under-reported across the board.[36]

Figures 15a and 15b: Incident reporting rates by PCT (with and without inpatient provision)

Figure 15a (PCT without inpatient provision)

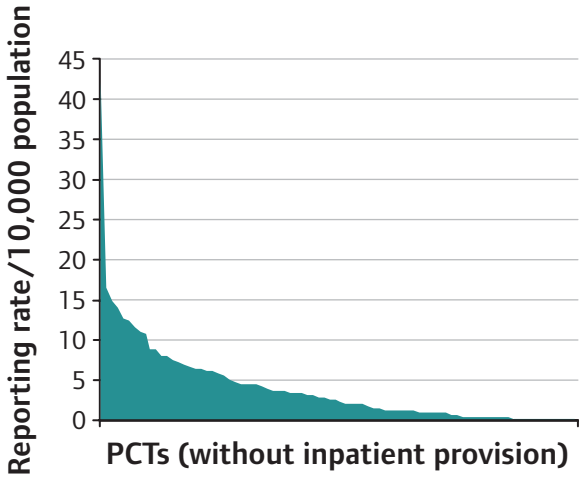
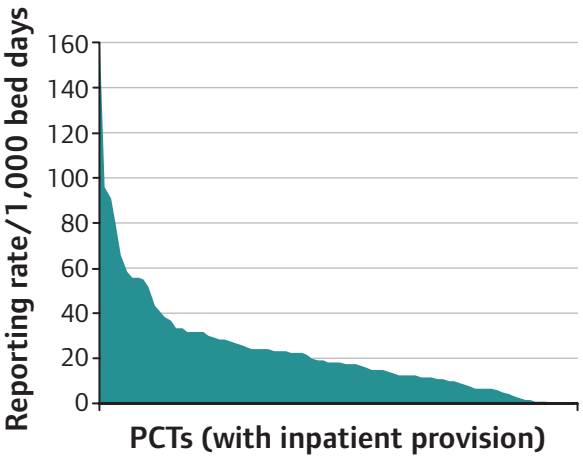
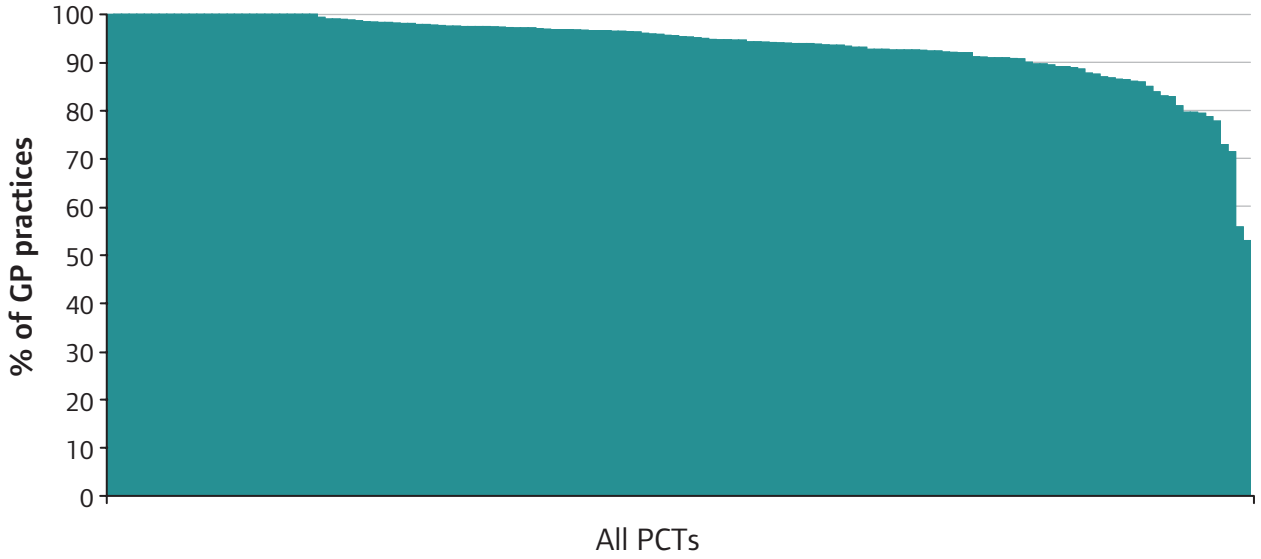


Figure 15b (PCT with inpatient provision)



Source: NPSA incident reporting data

Figure 16: Proportion of practices that have undertaken a minimum of 12 significant event reviews in the past three years



Source: QOF in 2007/08

In a similar vein, as part of the Quality and Outcomes Framework, GPs are required to complete a minimum of 12 significant event audits (SEAs), relating to care they have provided, in three years. SEAs are carried out when there has been a "significant occurrence … which is analysed … to ascertain what can be learnt about the overall quality of care and to indicate changes that might lead to future improvements".[37] The number of SEAs required is low, but a number of GP surgeries in some PCTs still do not meet the requirement (see figure 16). Across England, 657 (7.8%) of practices do not meet this requirement. Furthermore, a recent study found that the quality of completed SEAs was variable.[38]

All of the PCTs we visited had developed initiatives to encourage GPs to report incidents and share learning. However, only four of the 12 PCTs we visited provided evidence that they were using NPSA quarterly feedback reports to benchmark their reporting rates against others. It is concerning that four of the PCTs we visited did not provide any evidence to suggest that figures for medication errors were systematically collated, analysed and benchmarked against neighbouring trusts.

Analysing and reporting trends, and putting in place improvements

Across the PCTs we visited, despite discussion of medication incidents having taken place, there was patchy evidence that these had been analysed for trends, or that changes to practice had been made as a result of learning (see figure 17). For example, seven of the 12 PCTs we assessed did not provide any evidence of analysing the SEAs for trends and themes.

The NPSA recommends that a medicines management report should be produced and presented to a trust's board on an annual basis. At a minimum, this should contain levels of incident reporting and a summary of resulting learning points. Five out of the 12 PCTs had produced annual (or more frequent) medicines management reports. However, of these five, only two contained information on the number of medication incidents reported over the preceding year.

Only one PCT could present evidence that it had taken action to improve medicines management as a result of learning from its own incidents. In this case, GPs were reporting a number of dispensing errors from a particular pharmacy, which led to an investigation and local improvements. Four additional PCTs were able to demonstrate that action had been taken in response to either an NPSA alert or some other form of monitoring activity.

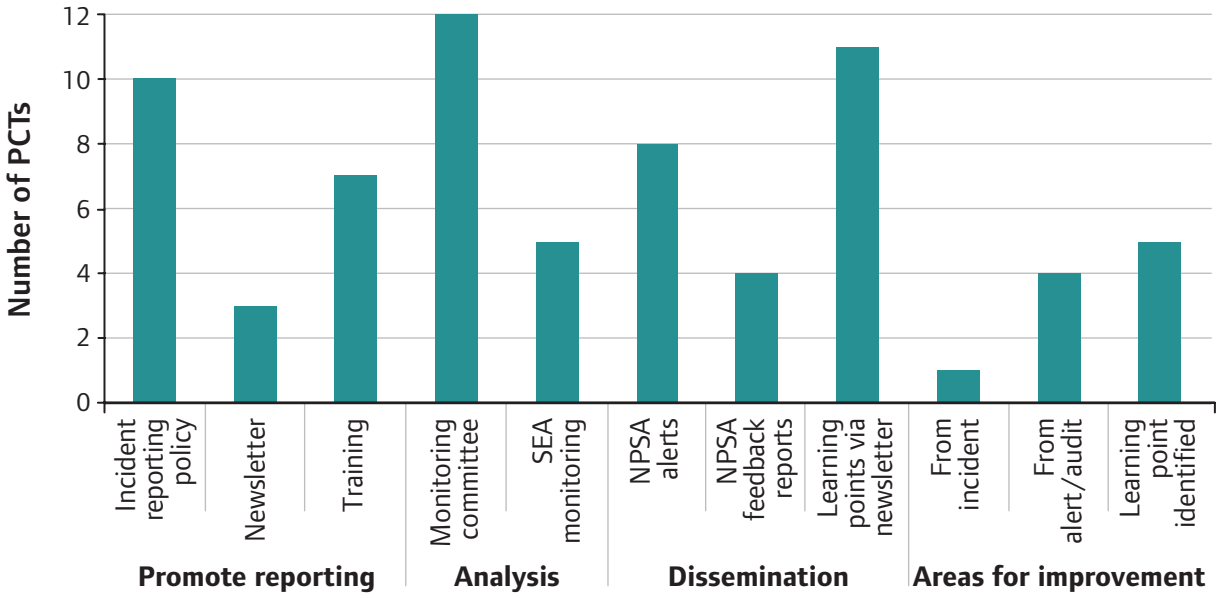
Case study 10

One PCT disseminates learning from medicines incidents through protected learning time for GPs. It also undertook a comprehensive review of the organisation's incident reporting arrangements, intending to raise awareness of reporting and to identify good practice. The review referred to, and built upon, the best practice guidance *Seven steps to patient safety for primary care*, produced by the NPSA.

A second PCT had implemented a 'green card scheme' – a process designed to gather feedback from healthcare professionals on their experiences of care across the interface between primary and secondary care. Among other things, this allowed for additional data to be collected on incidents involving late and inaccurate discharge summaries.

In another PCT, we were informed that the main acute trust provider fed back learning points arising from incidents, through its own reporting system, to the PCT, including GPs and community pharmacists.

Figure 17: PCTs' reporting and response to medication incidents



The safety of medicines management cannot be improved if incidents and errors are not reported. The culture of reporting incidents and errors by GPs to PCTs needs to improve, and the PCTs we visited were attempting to improve reporting and sharing of learning. However, a number of PCTs were not analysing the incident or significant event audit data available to them, few were reporting incidents to the board, and only one had implemented learning from its incidents, which is a wasted opportunity. Such actions will not lead practices to believe that reporting incidents is worthwhile.

Conclusion

The management of medicines when a patient is discharged is fundamental to providing safe, high quality care. Our review paints a mixed picture of performance. GPs, acute trusts and the primary care trusts (PCTs) that commission their services need to work together to improve care in this area, for the safety of their patients and to ensure that NHS resources are used more efficiently and effectively.

The information that is shared between GPs and acute trusts needs to be of better quality. In our study, GPs were providing many aspects of relevant information to acute trusts, for planned referrals, although they need to ensure that information on co-morbidities, known allergies and previous drug reactions is systematically shared. By contrast, the approach for providing information to acute trusts in emergency cases was often too slow, and informal, which presents risks. Some PCTs had introduced good practice schemes such as 'patient's own drugs', which helped to ensure that more information was conveyed for all types of admission. Acute trusts needed to improve the timeliness with which they shared discharge summaries, but most importantly, they must provide far higher quality information in discharge summaries, including more information on changes to medication, in line with the requirements of the NHS standard contract.

Far better communication with patients is needed to ensure that they understand their medicines and how to take them. Acute trusts and GPs need to ensure that they provide better information to people about their prescriptions, and spend more time talking to patients about their experience of their medication regimens. There are various professionals who can provide this information and support, but there was considerable variation in the resources available to support patients to take their medicine, across practices and the community.

Medicines reconciliation in GP practices, if systematically implemented and monitored, will help reduce medication errors and prevent adverse drug events. However, a large number of practices are not aware of, or operating to, an agreed protocol for reconciliation. Furthermore, while GPs and other clinical staff took responsibility for reconciliation in the great majority of practices, a smaller number of practices delegated the responsibility for medicines reconciliation to managerial or clerical staff; these practices must ensure that proper cross-checking by clinical staff takes place.

All PCTs had either produced guidance on repeat prescribing or had encouraged GP practices to develop their own, based on guidelines provided by the PCT; the great majority of practices were aware of a protocol for repeat prescribing. However, some key information like length of treatment for certain high-risk drugs and drugs suitable for repeat prescribing was not always included in practices' repeat prescribing protocols.

Most practices were carrying out the essential elements of medication review, and were meeting the Quality and Outcomes Framework (QOF) requirements in terms of frequency of reviews. Around 60% of individual GP practices were exceeding the QOF requirements and carrying out reviews within one month of discharge from hospital for those patients on high-risk drugs. However, there is a lack of information on the quality of reviews.

It is very important that GPs capture and report more information about when care goes wrong: the levels of incident reporting from practices is low, and a number of GP surgeries across PCTs still do not meet the requirement to carry out significant event audits.

There is considerable variation in the resources available to PCTs to ensure the safety of patients across the discharge pathway, and current provision has not generally arisen or been targeted as a planned response to need. For example, pharmacists can have a key role in driving improvement, but there is great variation in the level of support from pharmacists in different PCTs, and also in how pharmacists are used. Some PCTs focus their pharmacists more on direct patient care; some focus pharmacists on value-for-money issues (such as prescription of generic drugs) rather than safety issues. PCTs need to benchmark the level of their pharmacist resource against others, and target pharmacist time on the patients at greatest risk. They should also compare the type of work their pharmacists and their medicines management teams carry out.

Monitoring care and driving improvement

The review looked at PCTs' roles in monitoring care and driving improvement across this care pathway. There are a number areas where PCT monitoring and contract management, governance and targeting of resources need to improve.

It is essential that PCTs hold GP contractors and acute trusts more effectively to account on how they share information when a patient is admitted and discharged from hospital: they must set clear expectations of both acute trusts and GPs, setting out requirements by varying acute trust contracts, and taking the opportunity to set requirements for primary care when commissioning new services. They need to establish systematic monitoring and strengthen contract management in order to ensure that the information shared regularly includes the key facts that are needed to ensure care is safe, and that patients receive discharge letters as set out in the NHS constitution.

The extent to which learning from monitoring had translated into evidenced improvements in care was poor, with monitoring (particularly for QOF purposes) often an end in itself. PCTs were not making effective use of information already locally available, to improve care. PCT structures need to prioritise medicines management more highly, given its potentially significant impact on patients and on efficiency. They need a stronger focus on setting action plans and driving improvement based on local learning.

This study highlights the potential of national systems such as the QOF and the electronic patient record. QOF is clearly a useful tool that enables PCTs to gather information on performance from practices – a number of PCTs in our study relied heavily on that monitoring information. However, there is potential for QOF to more effectively help PCTs drive improvement. The QOF requirements that relate to this medicines care pathway appear to 'set the bar' quite low, with the majority of practices across PCTs meeting requirements. QOF indicators should be tightened to take other national guidance on medicines management into account, cover quality as well as timing issues and reflect what is already being done in the better GP practices. This will enable more effective benchmarking between practices and incentivise further improvement.

IT systems have the potential to significantly improve communication between acute trusts and GPs. The movement towards standardised electronic discharge summaries and the summary care record, for use across different settings, is to be encouraged.

This study highlights the potential for error when patients move from one care setting to another, and the importance of good information transfer and good checking systems, to minimise risks. All organisations involved in providing, commissioning, regulating, and setting standards for care, need to pay particular attention to these interface issues, to ensure that care is safe.

Recommendations

Primary care trusts should:

- Work with GPs to agree the use of standard referral forms, including a specification for the information that GPs will provide to local acute trusts when a patient is admitted, taking account of the guidance from the National Prescribing Centre. This should cover elective and emergency admissions, and set out timeframes for the provision of this information. They should then audit the use of this form, and whether timeframes are met, holding practices to account.
- Work with GPs to clarify their expectations of GP practices, in relation to reconciliation, medication review and repeat prescribing. These should be in line with national guidance and cover the quality of processes (for example, the elements of medication review that are completed) as well as their timeliness.
- Make far better use of the information they already have on the performance of their GPs in relation to medicines management. This includes information on the quality of referrals (information on elective referrals should be readily available in electronic format from practices), information from National Reporting and Learning System (NRLS) feedback reports, local audits and QOF. All this information can be used to focus local improvement activity, through benchmarking activity, discussion in practice visits and in discussions about contracts. SEAs and incident reports should be used to promote learning across the PCT.
- Ensure that contracts with acute trusts set out the requirements and quality markers for both the timeliness and content of discharge summaries. Information on diagnosis, changes to medication and the reason for them must be included. They should put in place contract variations to set this in place at the earliest opportunity, including incentives through the commissioning for higher quality and innovation (CQUIN) system and penalties for poor contract performance.
- Review and set up better monitoring systems to ensure that acute trusts are meeting their contractual obligations regarding the content and timeliness of discharge summaries and letters. They should do this by collecting feedback from practices, through snapshot or continuous monitoring.
- Evaluate the level of pharmacist support available to them, and how this resource is currently being used, where possible benchmarking against other PCTs. They should ensure that their employed pharmacists and medicines management team focus on medicines management after discharge, to improve patient safety and efficiency. Such an evaluation should include:
  - Understanding how pharmacists and technicians employed by PCTs and GP practices are currently deployed, in terms of their location and type of work (for example, focus on increasing generic prescribing as compared to focus on medicines management after discharge).
  - A pharmaceutical needs assessment of their locality, to identify practices with the greatest demand for medication review, and support for elderly patients to comply with their medication.
  - Shifting and, where possible, increasing their pharmacist resource to provide more direct care to high-risk patients (for example medicine reviews), and to work with practices to improve their performance in this area and provide feedback to PCTs.
  - The level of medicine use reviews (MURs) carried out by community (high street) pharmacies, how these are targeted, and getting better feedback on outcomes when reviews are carried out.
- To ensure that information is shared more effectively, PCTs should develop patient-held systems (for example, 'green bag' schemes), and should press for the early introduction of local integrated electronic referral and discharge systems.
- Ensure that acute trusts, GPs and community pharmacies share information within the framework set out in the NHS Confidentiality

Code of Practice. This sets out that information can be shared between all those working within and under contract to the NHS, for the purposes of delivering healthcare.

GPs should:

- Ensure that they carry out a higher proportion of medication reviews with the patient present, so that they can discuss the patient's experience of taking the medicines.
- Share learning, by recording instances when the medicines pathway goes wrong, and reporting them to their PCTs and the National Patient Safety Agency. This should include any issues relating to discharge summaries and incidents relating to the care they provide themselves.

Community pharmacies should:

- Report instances of prescribing error to PCTs so that lessons are learned and the safety and quality of patient care is improved.
- Ensure that the categories of patients identified by their local PCTs are offered a MUR service consultation.

Acute trusts should:

- Ensure that all their clinicians are aware of their obligations with regard to admissions and discharge arrangements. In particular, communicating with patients about their medicines, providing discharge letters to patients, and completing discharge summaries for GPs on time and to include full information on medication changes.
- Provide objective information to PCTs regarding the extent to which information from GPs is incomplete or late, for both emergency and non-emergency referrals, to drive improvement.
- Review their medicines management arrangements in readiness for the introduction of registration with the Care Quality Commission – this applies to all organisations providing healthcare, in both the NHS and independent sector. They should pay particular attention to the requirements of regulation 11 (outcome 8) as described in our consultation document *Guidance about compliance with the Health and Social Care Act 2008 (Registration Requirements) Regulations 2009*.

National bodies

- Aspects of the National Programme for IT (NPfIT) will bring about considerable improvement in the communication of medicines-related information across organisational boundaries for all patients and types of admission. The Department of Health should ensure that practitioners use aspects of the NPfIT that enable electronic communication between primary and secondary care, in particular, the summary care record (SCR) and where possible accelerate its use across different care settings.
- NHS Connecting for Health should ensure that all healthcare practitioners involved in patient care are able to record necessary information on SCR, so that other practitioners may have access to reliable information when needed.
- The Department of Health should modify the Pharmaceutical Services (Advanced and Enhanced Services) Directions 2005, to ensure that pharmacies are required to follow a PCT's notification regarding categories of patients who benefit from MUR services, rather than simply having regard to them. The related proposals in the recent pharmacy White Paper, *Pharmacy in England, Building on strengths – delivering the future* in this respect are helpful and should be introduced as soon as possible.
- The great majority of GP practices are meeting and exceeding the QOF target for some medicines indicators. NHS employers and the General Practitioners Committee should review the targets and indicators that relate to this care pathway, to set more stretching objectives that allow better discrimination and benchmarking, and that take account of national guidance and best practice, when QOF is reviewed in 2011/12. They should also set out more stretching expectations of a 'medication review', to include patient involvement, and set new measures of quality (rather than measures of timeliness).

Appendix A: Methodology

Background

This study was developed and carried out by the Healthcare Commission, one of the organisations merged to form the new Care Quality Commission on April 1 2009.

The study was based on assessment visits to 12 primary care trusts (PCTs) including a survey of GP practices at each PCT visited, analysis of national datasets and commissioned research exploring the experiences of individual patients to provide a commentary on national performance.

Developing the assessment framework

We developed the framework based on a literature review and subsequent consultation with key stakeholders, including but not limited to, the Royal Pharmaceutical Society of Great Britain, NHS Alliance, PCTs, acute trusts, National Prescribing Centre and the National Patient Safety Agency, Department of Health, pharmacists, academic experts, managers in PCTs and acute trusts, GPs, national voluntary organisations with patient interests.

From this, and in collaboration with the review advisory group, we developed an initial set of questions and then piloted them in three PCTs to produce the final framework.

Information collected before and during assessment visits

The assessment consisted of evaluation of evidence presented before and during assessment visits, findings from surveys of GP practices (discussed below), and interview evidence collected during visits.

The assessment visits were carried out by Healthcare Commission assessors and based on a framework of defined themes and questions. Senior PCT staff and practice-based staff were interviewed as part of the visit.

GP practice survey

For some of the questions in the framework, a web-based survey of general practice was used to obtain specific evidence about practice-based medicines management arrangements and to corroborate information provided by the PCT. The survey was emailed to every practice manager within each of the 12 PCTs with a request that the completed questionnaire be signed off by either a GP or practice pharmacist.

The average response rate to the survey was 43 per cent, ranging from 22 per cent to 60 per cent across the 12 PCTs.

Characteristics of the PCTs visited

We visited a variety of PCTs with different social-economic description and varied level of performance in the quality of care category of the annual health check 2007/08.

PCTs visited	Region	Population served	Annual health check 2008 quality rating	ONS area classification
Calderdale PCT	North	200,421	Good	Centres with industry
Central Lancashire PCT	North	438,711	Fair	Prospering small town
Coventry PCT	Central	322,770	Fair	Centres with industry
Kirklees PCT	North	391,969	Fair	Centres with industry
Lewisham PCT	London and South East	257,420	Fair	London cosmopolitan
Middlesbrough PCT	North	144,105	Excellent	Industrial hinterlands
North East Lincolnshire Care Trust Plus	North	163,551	Fair	Manufacturing town
Plymouth PCT	South West	250,298	Fair	Regional centres
South East Essex PCT	Central	333,348	Good	Prospering small town
Swindon PCT	South West	203,850	Good	New and growing towns
Westminster PCT	London and South East	234,500	Good	London Centre
Wolverhampton City PCT	Central	237,535	Fair	Centres with industry

Source for population: The Information Centre
Source for Annual Health Check performance: Care Quality Commission
Source for classification: Office for National Statistics

Patient experience

We commissioned national research into the experience of older patients recently discharged from hospital with high risk drugs such as diuretics, anti-platelets, non-steroidal anti-inflammatories (NSAIDs), and anti-coagulants, to explore their experience. Eighteen patients were interviewed as part of this research. We also held a total of 27 interviews with five seldom heard patient groups to capture the experience of minority patient groups. The findings were largely consistent with the result of the national research commissioned. The feedback from the commissioned research and interviews with the 18 patients are cited in relevant sections throughout the report.

National datasets

National datasets used throughout the report to provide commentary on national performance are made up of relevant quality and outcome framework (QOF) indications, patient survey, hospital episode statistics, general pharmaceutical data and National Patient Safety Agency (NPSA) incident reporting data. Below is a list of the datasets.

Data description	Source	Year
Proportion of practices where medication review in preceding 15 months for all patients with 4+ medicines is recorded	QOF	2007/08
Proportion of practices that have undertaken a minimum of 12 significant event reviews in the past three years	QOF	2007/08
Proportion of patients who were not given information about the purpose of their medicine	Survey of PCTs' patients	2007/08
Proportion of community pharmacies accredited to offer medicine use reviews	General Pharmaceutical Services	2007/08
Incident reporting rates by PCTs (with and without inpatient provision)	NPSA incident reporting data	2007/08

Appendix B: Assessment framework

Theme/Question	Ref	Question
Information on admission		
Admission guidelines	1	Does the PCT provide written guidance for primary care providers (e.g. GPs/ Out of Hour Services) on the provision of information (on medicines) to acute care for elective and emergency admissions? If so, what type of information is to be supplied on admission?
	2	How is the guidance disseminated to GPs and how does the PCT assess whether the guidance is adhered to? How well is it adhered to?
Discharge		
Discharge summary	3	In commissioning acute services, does your PCT use the new (2008) standard NHS contract?
	4	What information does the PCT require acute providers to provide to GPs and patients on discharge and is this underpinned by a locally agreed protocol/ written standards? Examples of supplied information include: i) A summary of the key diagnosis made during the patient's admission. ii) Details of any medication prescribed at the time of the patient's discharge. iii) Any adverse reactions or allergies to medications or treatments observed in the patient during admission. iv) The name of the responsible consultant at the time of the patient's discharge. v) Any immediate post-discharge requirement from the primary healthcare team, e.g. blood tests. vi) Any planned follow-up arrangements. vii) The name and position of the person to whom questions about the contents of the discharge summary may be addressed, and complete and accurate contact details (including a telephone number) for that person.
	5	Are acute providers required to send community pharmacists a copy of the discharge summaries and if so, in what circumstances would the community pharmacist receive a copy? If not, has consideration been given, by the PCT, to including community pharmacists in this way?

Theme/Question	Ref	Question
Discharge summary (continued)	6	Does the PCT have arrangements in place for monitoring contractual agreements relating to discharge information (e.g. periodic audit)? What action does the PCT take where contractual agreements are not met?
	7	Whether or not it is in the contract, how well are the discharge standards (set out within written guidance/protocol/policy) adhered to, by discharging trusts?
	8	Has the PCT commissioned care pathways which allow for acute trusts to refer patients directly to primary care based services for specialist medicines support, on discharge (for example, medicines use review, pharmacist-led medication review, specialist monitoring clinics, community matrons, practitioners with a special interest)?
	9	Is there a formal process in place for assessing a patient's competency to take their prescribed medicines post discharge? If risks are identified, how are these communicated to the GP and what action is typically taken?
Reconciliation		
System, process and quality assurance	10	How does the PCT ensure that all relevant aspects of the document: *Medicines Reconciliation – A Guide to implementation*, are followed by GP practices (N.B. Reconciliation in this context occurs within the general practice and entails a process whereby the GP record is updated with details from the patient's discharge summary)?
	11	Within each practice, who is responsible for undertaking reconciliation on a day-to-day basis?
	12	How does the PCT assure itself that reconciliation is both accurate and timely? Furthermore, how is the PCT (as contract monitor) made aware of concerns over erroneous/missing data during the reconciliation process (e.g. reporting, audit) and does the PCT analyse these incidents for trends in repeat offending (i.e. repeated concerns/errors arising from the same department/ward/ organisation)?
Repeat prescribing	13	Does the PCT provide written guidance for repeat prescribing? What does this cover and how is it monitored?
	14	Has the PCT produced guidance suggesting which drugs should and shouldn't be subject to a repeat prescription? Do practices make arrangements to ensure this? (And how does the PCT assure itself that this is happening?)
	15	How does the PCT both monitor and ensure that medicines on a repeat prescription are not prescribed beyond recommended timescales?

Theme/Question	Ref	Question
Medication review		
Medication review	16	Does the PCT have a policy/protocol/strategy for medication review. Does it: • Prioritise certain patients for medication review? • Set out agreed standards for medication reviews conducted by local practitioners? • Specify the frequency of medication review for specific conditions, patients on specific drugs, or population groups?
	17	For patients taking high-risk medicines (e.g. non-steroidal anti-inflammatories (NSAIDS), anti-platelets, diuretics, drugs requiring calibration) who have been recently discharged, how soon is their medication reviewed?
	18	For those patients taking high-risk drugs (e.g. anti-platelets, diuretics, NSAIDS, those requiring calibration) that have recently been discharged, does the medication review take place with the patient present?
	19	Does the medication review cover the following issues: a. patient experiences of medication b. possible side effects c. monitoring arrangements and the need for possible changes?
	20	How does the PCT assure itself that medication reviews are undertaken in a timely manner and to an acceptable standard (e.g. does the PCT collect information on whether bloods are taken beforehand if necessary, % of medicines changed as a result of the review, duration between reviews, % of high-risk patients receiving reviews etc)?
Other checks	21	Does the PCT commission (or employ) pharmacists, be they practice based or otherwise, to promote safe medicines management post discharge? If so, what is their role with regard to the following: • Medicines review post discharge. • Reconciliation. • Repeat prescribing. • Specialist medication monitoring.
	22	Does the PCT commission (or employ) medicines management support post discharge from district and/or community nurses, and community matrons?

Theme/Question	Ref	Question
Concordance		
Concordance support	23	Does the PCT have a mechanism/process for the identification of trends in patients over-/under-using medication? And if so, what action has been taken by the PCT to address issues of low adherence with medicines use?
	24	How does the PCT engage with its local partners to manage the discharge process for older people and on what basis is additional support (for medicines) assessed and provided (if at all)?
	25	Are medication use reviews targeted towards particular patients and does the PCT collect information on uptake?
Learning from incidents		
Incident reporting	26	How does the PCT promote incident reporting regarding medicines, from independent contractors (e.g. GPs, practice-based pharmacists, nurse prescribers, community pharmacists etc)?
	27	Does the PCT have a system/mechanism in place for monitoring trends in reported incidents/significant event audits/complaints (relating to medicine) and cascading learning points? Are levels of reporting and learning points captured in an annual medicines management report?

Appendix C: Acknowledgements

The Care Quality Commission would like to thank the advisory group, regional/national groups and primary care trusts (PCTs) that have contributed their time and expertise to help us scope, develop, pilot and implement the assessment framework. Their contributions have been critical to the successful completion of the review.

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David Haslam	Care Quality Commission
Gillian Arr-Jones	Care Quality Commission

Pilot sites

Hartlepool PCT
Somerset PCT
Walsall PCT

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