Prioritising pharmaceutical care delivery at ward level: a resource for pharmacy managers working in inpatient settings

**Aim:**
To bring together methods and resources which support individual pharmacists or pharmacy teams to prioritise and deliver pharmaceutical care at ward level in a way which maximises patient outcomes and staff skill mix in order to meet the specific needs of the organisation.

**Objectives:**
- To ensure patient safety is paramount
- To bring clarity to the roles of pharmacy teams working on wards
- To prioritise the time spent at ward level in order to deliver maximum patient benefits
- To provide a rational and defensible basis for prioritising pharmacy service delivery
- To identify patient outcome measures that could be used to reflect the contributions of pharmacy services (in line with ‘Transparency in Outcomes – A Framework for the NHS’)

This resource does not review the evidence base for clinical pharmacy services and interventions. This can be found on NHS Evidence (link). It is designed to complement the Service Redesign Toolkit (link). It has been reviewed by a number of leading practitioners from the CPN and some Band 6 & 7 pharmacists and shares expertise from organisations across the SPS geography. It is intended to help clinical pharmacy leads ensure their services are providing a consistent, effective and value for money service which delivers clear patient benefits.

**Background**
Pharmacists have delivered services at ward level since the 1970’s and the clinical services in many organisations have grown organically, shaped by their clinical pharmacy managers and available staffing resources. However, the current reorganisation of the NHS and specifically the move to treat patients closer to home is changing the types of services delivered in inpatient settings.

In addition, the NHS as a whole is currently striving to deliver £21 billion of savings over the next 4 years. The QIPP Programme (quality, innovation, productivity and prevention) is seen as key to the ability of the NHS to survive in a recognisable form, whilst continuing to deliver and also improve patient care.

It is now clear that increasing staff productivity is the highest priority with respect to the delivery of cost effective care, as staff are the most expensive NHS resource. Currently, productivity in the NHS is not growing sufficiently despite massive injections in funding over the past 10 years. It has been estimated that a 6% increase in NHS productivity is required annually to address the funding crisis. Pharmacy services in trusts are not immune to the need to increase productivity and many senior pharmacy managers have already been asked to deliver sizable savings in staffing resource.
**Current practice**

In most organisations ward or clinical pharmacy is undertaken primarily by Band 6 and Band 7 pharmacists. This is partly because they are often the most abundant staff grade and also because the career structure of pharmacy means that specialisation is a feature of higher grade posts. Thus, as pharmacists are appointed to specialist or highly specialist Band 8 roles this frequently reduces significantly the amount of time spent on general ward based activities, or confines delivery of pharmaceutical care to a small number of patients.

As a consequence, newly qualified pharmacists can spend a large amount of time working alone on busy general medical and surgical wards, sometimes supported by a pharmacy technician but rarely supervised directly by more senior colleagues, with the objective to ensure all the patient’s pharmaceutical needs are met within a designated time period.

**Clarification of ward level clinical services**

Both following induction and in times of staffing shortages, junior and senior pharmacists may be left to ‘cover the ward’ and may have received little clear direction on how to utilise their time to best effect to meet the needs of the patients and the organisation. The fast turnover of patients, the more complex patients that are now being admitted to hospital with several co-morbidities and numerous medications plus the ever increasing demands around what pharmaceutical care should involve can be bewildering to a pharmacist with little previous experience. In addition, organisational demands may be counter-intuitive. For example, the organisational priority that may need to be given to rapid discharge when the needs of patients being admitted or receiving continuing care may seem higher to the practitioner.

Without clear priorities, junior practitioners may resort to focussing their time on the tasks they most enjoy, or find least stressful, or to act only in response to demands communicated as urgent by the ward staff, rather than taking a systematic approach to meeting the needs of their patients. They may thus not achieve what senior managers expect through no fault of their own. They may also become anxious and stressed that they are not able to achieve everything expected of them by more senior colleagues, or which match their own personal expectations or vision of pharmaceutical care. Time management may also be a big issue when fixed ‘slots’ are allotted to ward visits. This is a situation that often does not help junior pharmacists, the organisation, and most importantly the patients. A further problem is frequently a lack of clarity between the role of clinical technician and junior pharmacist, with overlap or duplication of effort.

Delivery of general level services can also present challenges for senior pharmacists more used to specialised service delivery, perhaps in a specialist pharmacy role rather than as a clinical expert, and who may have trained and had most experience in a very different clinical setting. Such staff may only feel comfortable delivering their long-established concept of clinical care using ways of working which may not reflect the changing organisational needs or locally agreed practice and ways of delivering care that are expected from the rest of the clinical team. They may also not recognise the need for, or feel able to request help, to support the care of complex patients beyond their capability. This can be a difficult problem for clinical pharmacy managers and cause conflict within the clinical pharmacy team.

Whether designing or redesigning clinical pharmacy services, care may need to be taken not to undermine the confidence of those already providing services. It can feel very threatening to have others ask ‘what do you do’ particularly when there is no clear operating procedure for the role. Change management is beyond the scope of this resource but is addressed in the *Clinical Service redesign toolkit*. 

Prioritising pharmaceutical care delivery at ward level – Vs.1 – Apr11 (LD)
Outcomes of ward-level pharmaceutical care

When designing a service which will use either junior pharmacists or a mix of junior and senior pharmacists with or without the support of clinical technicians to deliver pharmaceutical care, the following need to be taken into account (Note: these priorities are not ranked):

<table>
<thead>
<tr>
<th>1. Desired patient outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1 Safe care</strong> (allergy status, safe prescribing and administration, reducing delayed and omitted doses, implementing NPSA alerts etc.)</td>
</tr>
<tr>
<td><strong>1.2 Informed patient with positive experience of pharmacy services</strong> (adherence, shared decision making around medicines use with individualised medicines information)</td>
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<tr>
<td><strong>1.3 Accurate information transfer</strong> (particularly when moving between care settings)</td>
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<td><strong>1.4 Delivery of evidence based care</strong></td>
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<table>
<thead>
<tr>
<th>2. Desired pharmacist outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.1 Job satisfaction</strong> (knowledge that patient care is being delivered appropriately, problems resolved in allotted time, minimised stress)</td>
</tr>
<tr>
<td><strong>2.2 Clear understanding of what needs to be achieved</strong> (including differentiation between their role and the role of technicians and/or other pharmacy staff supporting the ward)</td>
</tr>
<tr>
<td><strong>2.3 Knowledge and skills gained through caring for different patient groups</strong></td>
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<tr>
<td><strong>2.4 Ability to ask for and receive support when faced with complex patients beyond their level of competence</strong></td>
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<table>
<thead>
<tr>
<th>3. Organisational outcomes</th>
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</thead>
<tbody>
<tr>
<td><strong>3.1 Cost effective prescribing</strong> (hospital formulary, appropriate use of patient’s own drugs)</td>
</tr>
<tr>
<td><strong>3.2 Adherence to national best practice drivers related to medicines management</strong> e.g. NICE, NPSA guidance</td>
</tr>
<tr>
<td><strong>3.3 Achievement of medicine-related national, local and organisational targets</strong> e.g. Quality account measures, CQUINs, Discharge times, electronic discharge requirements, Safety federation (or similar) requirements, 30-day readmission rate</td>
</tr>
<tr>
<td><strong>3.4 CQC &amp; Monitor approval</strong> (quality monitoring, audit requirements, financial balance, NHSLA level)</td>
</tr>
<tr>
<td><strong>3.5 Productivity increase</strong> (optimal use of available pharmacy staffing levels)</td>
</tr>
<tr>
<td><strong>3.6 Delivery of improved patient outcomes</strong> (patient and staff satisfaction with pharmacy services, data demonstrating the impact of pharmacy services on patient safety &amp; optimising length of stay etc., low pharmacy staff sick leave and turnover)</td>
</tr>
</tbody>
</table>
Delivery of pharmacy-led medicines management services

It is unlikely that there will be one way to deliver services to all patient groups within a large organisation; however, there are ways of approaching the delivery of standardised patient care. The common factor is that once the service to a particular care area has been defined and committed to a standard operating procedure (SOP), it must be clearly communicated to all pharmacy staff who deliver care to the care area and also to the ward or care area staff. This will ensure ward expectations of the pharmacy service are sustained, ward staff will interact predictably in the knowledge that their agreed service needs will be met by whichever pharmacy team member is working on the ward, and pharmacy staff are clear how the service they provide must be tailored to the patient group they are caring for. Ideally the service to a care area will be managed overall by a more senior practitioner who can induct new staff to the care area and provide on-going support and supervision.

In 2001, the Clinical Directorate of E&SE England Specialist Pharmacy Services (SPS) published a reference framework which defined the essential and desirable elements of a pharmacy clinical service. This is available on NHS Evidence (link). This could be used to identify the core roles of the organisational clinical service which may then be customised to reflect the priorities associated with different care settings.

In 2007, an SPS clinical pharmacy network meeting held workshops to try to define blueprints for clinical services. Over 60 clinical pharmacy practitioners attended. The essential and desirable core clinical tasks for medicine, elective surgery and care of older people agreed at the meeting were shared (link). Since then there have been a number of NPSA publications that may have changed organisational and hence pharmacy service priorities (e.g. safety solution on medicines reconciliation, alerts on management of delayed and omitted medicines etc.).

In order to help address these issues this resource will set out material under the following headings. Sections 1-4 represent different ways of approaching how to define the level of clinical service that should be offered to a specific care area and offer suggestions on how to use the information presented to underpin the development of customised SOPs for services to different clinical areas. Each section also includes examples kindly shared by members of the East and South East England Clinical Pharmacy Network. The final section offers ways of demonstrating the outcomes of clinical services to practitioners and to senior management.

Section 1. Patient prioritisation

Section 2. Staff availability and capability

Section 3. Customising services

Section 4. Making effective use of available time

Section 5. Demonstrating the value of pharmacy services

The table on the next page shows how the methodology described in each of these sections links to delivering the desired patient, practitioner and organisational outcomes identified on page 3.
Table 1. Outcomes mapped to sections of material

<table>
<thead>
<tr>
<th></th>
<th>Patient outcomes</th>
<th>Pharmacist outcomes</th>
<th>Organisational outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient prioritisation</td>
<td>1.1, 1.2, 1.3, 1.4</td>
<td>2.1, 2.2</td>
<td>3.1, 3.2, 3.5</td>
</tr>
<tr>
<td>Consideration of staff availability &amp; capability</td>
<td>1.1, 1.4</td>
<td>2.1, 2.2, 2.3, 2.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Customising services</td>
<td>1.1, 1.2, 1.3, 1.4</td>
<td>2.2</td>
<td>3.1, 3.2, 3.3, 3.4, 3.5</td>
</tr>
<tr>
<td>Making effective use of available time</td>
<td>1.1</td>
<td>2.1, 2.2</td>
<td>3.5</td>
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<tr>
<td>Demonstrating the value of pharmacy services</td>
<td>1.1, 1.2, 1.3, 1.4</td>
<td>2.1, 2.2</td>
<td>3.1, 3.2, 3.3, 3.4, 3.5, 3.6</td>
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</tbody>
</table>
Section 1. PATIENT PRIORITISATION

To provide optimal pharmaceutical care each prescription should be reviewed by a pharmacist as soon as possible after it is written. This will ensure the prescription is safe and appropriate.

The accepted method of delivering a proxy of this optimal care in many organisations is still to stipulate that pharmacy staff review all prescriptions each time they visit a ward. However, strict adherence to this strategy often means that time allocated to a ward visit may be wasted in searching for charts that are not in their allocated place by the bedside and reviewing a high number of charts where no prescribing has taken place. This strategy is not only inefficient but also fails as a proxy for optimal care for the following reasons:

- Pharmacy does not provide a 24-hour service so prescriptions written as soon as the pharmacist leaves the ward will not be seen until the next visit if the item is available on the ward- which may be 24h to several days later. In addition, no ward level service is provided at weekends.
- Charts may be unavailable during a timed pharmacy visit. This means prescriptions may still be missed for several days.

The rapid throughput of patients in a hospital in the 21st century means that we need to think differently about what the key outcomes for service provision are, which in turn means looking at the patient outcomes we wish to achieve from pharmacy support, and the ways in which we can identify those patients who have most need of pharmacy support. This must be set against the limited amount of pharmacy support available to serve the pharmaceutical needs of a ward full of patients during a short visit.

An individual’s need for pharmaceutical care can be prioritised using a number of methods which could be translated into a list of high risk drugs or situations which trigger priority pharmaceutical care. These patients would then be the first to be addressed during a ward visit. If time remains after the needs of these patients have been met, then the pharmacy team/individual could address lower priority patients. A number of methods of prioritisation can be considered.

1. By drug (level of patient risk)

A number of drugs have been defined as high risk to patient safety and could be used to compile a high risk group of patients which should have first priority for pharmacy support. Drugs which may be considered for any high risk drug list might include those:

- **Complex to administer safely** e.g. IV drugs, amiodarone initiation. The NPSA document ‘Safety in Doses’ indicated that 60% of all reported safety incidents related to injectables.
- **Narrow therapeutic range** e.g. aminoglycosides, warfarin, digoxin, antiepileptics, cytotoxics, immunosuppressants
- **Identified as high risk by NPSA.** ‘Safety in Doses’ highlighted cardiovascular drugs, anti-infectives, opioids, anticoagulants and antiplatelets as medications most associated with reported incidents.
- **May have significant impact on patient clinical outcomes if they are delayed or omitted.** The action point for the NPSA RRR on delayed and omitted doses was for each organisation to agree a list of critical medicines where omission or delay could seriously compromise clinical care. This list could also be used trigger pharmaceutical support at ward level. UK MI have also produced a list of drugs based on the BNF that should be considered for this list ([link](#)).
May have contributed to the patient's admission to hospital. Research evidence has demonstrated that the following drugs are at high risk of causing patient admission to general medical wards: NSAIDs, anticoagulants & antiplatelets, digoxin, diuretics (Pirmohamed M. et al, Br Med J 2004; 329: 15-19)

PbR drug exclusions. These are usually high-tech, high cost drugs with clinical as well as financial complexities associated with their management.

In addition, the Health Economy Statistics database (www.hesonline.nhs.uk) was set up to look at reasons for admission to hospital, based on coding done within trusts from medical notes. Summary data are produced annually by every trust in England and include codes for adverse events to drugs which contribute to finished consultant episodes and bed days. The local data collected from your organisation to contribute to the hesonline database can be interrogated to identify whether there are particular drugs or classes of drugs contributing to the admission or readmission rates for your local population.

How to identify this patient group?

- As a result of medicines reconciliation (referral from clinical technician if team approach to care, or by admitting doctor or nurse)
- PAS screen to identify new patients since previous visit carried out before ward visit
- PODS review by clinical techs/nursing staff
- By working closely with ward staff and using ward based resources (e.g. nurse handover sheets, doctor or nurse referral sheets or communication books, whiteboard data)
- Regular drug chart review (though may be unreliable if charts move off ward with patient etc.). This could be by technician or assistant with referral on to pharmacist.

2. By patient (complexity or reason for admission)

- Nil by mouth. Essential drugs must be identified for IV/ non-enteral continuation and clear guidance on what and when medications may be given orally when NBM stipulated.
- Swallowing difficulties. Patient may have P.E.G. or other sited feeding tube, or can only manage liquid formulations.
- Polypharmacy (Arbitrary: 5 or more regular drugs often a chosen cut-off point)
- Potential adherence issues
- Renal or hepatic insufficiency
- Multiple IV drugs/TPN
- Drugs identified as cause of admission

Note: A decision may have to be made whether the staff member covering the ward has the competency to deal with all identified high risk patients, or whether some must be referred to a more senior pharmacist or team leader.

How to identify this patient group?

- As a result of medicines reconciliation (referral from clinical technician if team approach to care, or by admitting doctor or nurse)
- PODS review by clinical techs/nursing staff
- By targeting ward/specialty for a higher level of pharmaceutical care
- By working closely with ward staff and using ward based resources (e.g. nurse handover sheets, doctor or nurse referral sheets or communication books, whiteboard data)
- Regular drug chart review (though may be unreliable if charts move off ward with patient etc.). This could be by technician or assistant with referral on to pharmacist.
- Review of lab data from remote terminal prior to ward visit
3. Externally-driven factors (organisational ‘must dos’) 

- Discharge timescale targets
- Medicines reconciliation targets
- VTE prophylaxis targets
- Provision of information on e.g. side effects of medicines (e.g. in relation to CQC patient experience questionnaires)
- Cost-effective use of drugs. Formulary adherence, monitoring of very high cost drugs and PbR drug exclusions

If key targets must be met to fulfil quality and productivity targets set nationally or locally, then these may take precedence over other functions, particularly if staff resource is inadequate. Pharmacy staff must be clear which tasks have priority when faced with a limited time and a number of service delivery options.

How to identify this patient group?

- By working closely with ward staff (using referral system if appropriate) and using ward based resources (e.g. nurse handover sheets, communication books, whiteboard information etc.) to anticipate discharge
- Working closely with bed manager/operational teams
- As a result of medicines reconciliation (referral from clinical technician if team approach to care, or by admitting doctor or nurse)
- PAS screen for new patients since previous visit carried out before ward visit
- PODS review by clinical techs/nursing staff

Table 2. Summary of methods of identifying the need for priority pharmaceutical care

<table>
<thead>
<tr>
<th>How to identify priority patients</th>
<th>By Drug: (level of patient risk)</th>
<th>By Patient: (complexity or reason for admission)</th>
<th>By External Factor: (organisational “must do”)</th>
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<tbody>
<tr>
<td>Medicines Reconciliation</td>
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<td>√</td>
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<tr>
<td>PAS screen to identify new admissions</td>
<td>√</td>
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<tr>
<td>PODS review</td>
<td>√</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Close working with ward staff and ward info</td>
<td>√</td>
<td>√</td>
<td></td>
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<tr>
<td>Regular Drug Chart review</td>
<td>√</td>
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<tr>
<td>Targeting ward/patients for specialist pharmaceutical care</td>
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<td></td>
<td></td>
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<tr>
<td>Review of laboratory data</td>
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<td></td>
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<tr>
<td>Referral from ward staff</td>
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<tr>
<td>Working with bed manager</td>
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</tbody>
</table>

Links to examples from practice

EKHT: Targeting high risk patient groups
GSTT: Checklist for patients to refer for clinical advice
GSTT: Surgical GI trigger tool
GSTT: Doctor/nurse to pharmacists patient referrals
GSTT: Nurse to pharmacist patient referrals
WSHT: DOME/Stroke patients referral

Prioritising pharmaceutical care delivery at ward level – Vs.1 – Apr11 (LD)
Section 2: STAFF AVAILABILITY AND CAPABILITY

Once the patient’s level of pharmaceutical need is established, it is important to next define how this can best be provided within the pool of pharmacy staff available. It is also important to consider the roles of other healthcare professionals in the care of the patient so that there is no duplication of effort, e.g. around patient monitoring or counselling, nor conflicting information offered which might confuse the patient. This should ideally be agreed with the medical and nursing staff on the ward who should also be able to identify clearly what services the pharmacy team are providing.

The pharmacy service delivered may be defined by the staff available to provide it. However, it is important to review not only what staff are available but also what can be expected from them in terms of knowledge and experience (competency). For example, it should be feasible to develop referral systems which use pharmacy assistants to check for new items prescribed and then refer patients for clinical screening and support within an agreed protocol, or to check PODs brought in with the patient and record them on the drug chart. Time may be freed up for these roles by reviewing current tasks carried out by this grade of staff. For example, stock ordering could be passed back to nursing staff (with suitable support) as they are best placed to know demand on a day to day basis and increasingly are also responsible for the ward drug budget. This could free time spent by pharmacy staff ordering and sorting out messy cupboards on the ward and also engender a sense of nursing responsibility and financial accountability around the management of pharmacy products! The time released by this shifting of work would enable higher grade staff to deliver more proactive patient care such as monitoring patients on high risk drugs or with other needs, and also perhaps free time to offer services currently not supplied, for example, addressing adherence issues or offering targeted counselling.

A review of current staff activity may facilitate decisions around skill mix use to deliver clinical services. An activity audit tool can be found in the Service Redesign toolkit. This was used by 7 trusts across the East of England who were engaged in clinical service redesign. It highlighted the significant variations between hospitals in the use of skill mix to deliver services, and helped managers evaluate the appropriateness of their staff use of time. The resulting report can be found on NeLM (link) and may be a useful benchmarking tool or offer a guide to how other trusts deliver services to similar care areas.

Clinical Pharmacy Assistants (Bands 2&3) capability

- Ward stock review and supply
- Review of charts for new items to be referred on to technicians/pharmacists as appropriate
- Pull off PAS or laboratory data for clinical staff review prior to ward visit
- List and evaluate PODs for use on the ward
- Ensure patient information on medicines available at ward level
- Identify which patients may like additional information on medicines and refer to technician/pharmacist as appropriate

Clinical Pharmacy Technician (Bands 4 & 5) capability

A competency framework for pharmacy technicians is now available (www.codeg.org). Clinical technician roles at ward level may include:

- POD checking
- Drug history taking or full medicines reconciliation including establishing adherence and any adherence support needed
- Supply under protocol
- Referral to Band 6 or more senior pharmacist
- Patient counselling
Pre-registration Pharmacist capability

Working under supervision, roles may include:
- POD checking
- Drug history taking or full medicines reconciliation including establishing adherence and any adherence support needed
- Supply of new items
- Referral to Band 6 or more senior pharmacist
- Patient counselling

Band 6 pharmacist capability

In East and South East England competency at this level has been largely defined by the General Level Framework which underpins the Diploma in General Pharmacy Practice, the training programme run by HEIs in collaboration with the NHS. The conditions Band 6 practitioners should have basic competency (though not necessarily expertise) to manage by the end of their certificate training (approx. 18 months) are listed as follows:

<table>
<thead>
<tr>
<th>Condition</th>
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<tbody>
<tr>
<td>Acute coronary syndromes</td>
<td>Pain management</td>
</tr>
<tr>
<td>AF</td>
<td>Parkinson’s Disease</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Epilepsy (Status)</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Management of alcohol withdrawal</td>
</tr>
<tr>
<td>Asthma</td>
<td>Opioid dependence</td>
</tr>
<tr>
<td>COPD</td>
<td>GORD</td>
</tr>
<tr>
<td>Surgical antibiotic prophylaxis</td>
<td>PUD</td>
</tr>
<tr>
<td>Perioperative anticoagulation</td>
<td>Acute GI bleed</td>
</tr>
<tr>
<td>Post-op nausea and vomiting</td>
<td>CVA</td>
</tr>
<tr>
<td>Fluid management</td>
<td>Community acquired pneumonia</td>
</tr>
<tr>
<td>Management of NBM</td>
<td>Cellulitus</td>
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<tr>
<td>Diabetes</td>
<td>UTI</td>
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</tbody>
</table>

Band 6 pharmacist roles may include:
- Medicines reconciliation (history taking and/or sign off)
- Clinical checking and supply
- Monitoring
- Discharge prescription writing
- Discharge prescription checking or supply as prepacks
- Discharge counselling
- Referral of problems outside competency to a more senior practitioner
- Ensure formulary adherence and use of cost effective therapy options as agreed through D&T or directorate policy

Note: It will be important to consider how a Band 6 pharmacist’s capability may change over the first 18 months of practice. There is considerable variation in the speed of pharmacist development and regular supervision and assessment is key to optimal use of this grade of staff. This may also be affected by the level and speed at which the pharmacist rotates through various areas of care.
Band 7 & 8 pharmacist capability

The Specialist Curriculum group has drawn up a number of professional development programmes for clinical specialties which defines expertise in the delivery of care to patients with different conditions as requiring knowledge and experience at foundation (approx. Band 7) or excellence level (approx. Band 8) (definitions can be found at www.codeg.org).

Using the draft document for general medicine as an example, these frameworks identify the level of knowledge and experience to manage the following patient groups. Note: the level of expertise at foundation level is expected to be higher than for Band 6 level pharmacists managing the same conditions listed in the GLF in the first 18 months of their practice. The full document must be accessed to see how the frameworks fit together. The frameworks are still in draft form.

<table>
<thead>
<tr>
<th>Foundation (approx. Band 7)</th>
<th>Excellence (approx. Band 8)</th>
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<tbody>
<tr>
<td>PUD</td>
<td>Ulcerative colitis</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Acute GI bleed</td>
</tr>
<tr>
<td>IHD</td>
<td>Heart failure</td>
</tr>
<tr>
<td>Primary &amp; Sec prevention</td>
<td>Postural hypotension</td>
</tr>
<tr>
<td>VTE prophylaxis</td>
<td>AF</td>
</tr>
<tr>
<td>Asthma</td>
<td>Anticoagulation</td>
</tr>
<tr>
<td>COPD</td>
<td>Type 1 &amp; 2 respiratory failure</td>
</tr>
<tr>
<td>Allergies</td>
<td>TB</td>
</tr>
<tr>
<td>Smoking cessation</td>
<td>Parkinson’s disease</td>
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<tr>
<td>Acute and chronic pain</td>
<td>Epilepsy</td>
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<tr>
<td>Substance misuse</td>
<td>Mental health disorders</td>
</tr>
<tr>
<td>Community &amp; hospital acquired pneumonia</td>
<td>Stroke</td>
</tr>
<tr>
<td>UTI</td>
<td>Diabetic foot ulcers</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>Thyroid disease</td>
</tr>
<tr>
<td>Hospital acquired infection/Asplenia</td>
<td>Benign prostatic hyperplasia</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>Urinary incontinence</td>
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<tr>
<td>Anaemia</td>
<td>Neutropenia and neutropenic sepsis</td>
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<tr>
<td>Osteoarthritis</td>
<td>Rheumatoid arthritis</td>
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<tr>
<td>Gout</td>
<td>Psoriasis</td>
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<td>Osteoporosis</td>
<td>Chronic liver disease</td>
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<td>Conjunctivitis</td>
<td>Acute and chronic renal disease</td>
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<tr>
<td>Eczema</td>
<td>Risk management</td>
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<tr>
<td>Understanding of LFTs</td>
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<tr>
<td>Understanding of renal function tests</td>
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<tr>
<td>Adverse drug reactions</td>
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</table>

Roles which make best use of the knowledge and experience of Band 7 & 8 pharmacists may be to:

- Discuss patient management with ward clinicians (one to one or on ward rounds)
- Support junior pharmacy staff in the management of complex patients
- Develop and monitor policy and guidelines for medicines management in defined care areas
- Contribute to SOPs for routine ward-based services which ensure priorities and issues around medicines use for the specialty area are addressed
- Ensure cost effective use of drugs (stock list review and management, challenge inappropriate use of products, ward-level training on medicines management issues)
Assuring competency and capability

By defining competency as a list of desired conditions or actions which require evidence to support achievement it is clear that supervision will be required to ensure that staff are not acting below or beyond their true level of competency, ruled only by a list of what they may or may not do. This is particularly important if individual competency is initially self-assessed, without evidence to support the claims (e.g. newly qualified pharmacist, new member of staff).

Options to help assure competency and define the level of support different members of staff are required in order to ensure that patient benefits are maximised, and in particular, that safety is not compromised. These may include:

- Thorough induction of new staff
- Up to date policies and procedures that are easily accessible
- Monitored performance in clinical meetings
- Review of clinical interventions
- Regular and unannounced accompanied visits/ward rounds
- Evidence of reflection on capability leading to performance improvement
- Talking to staff working with the pharmacy staff member (or using mini-PAT data)

For junior grade pharmacists it will be important to separate this support and review of competency from the mandatory assessment required as part of the junior pharmacist postgraduate certificate and diploma programmes. The latter can be perceived by the junior pharmacists as ‘testing’ in a prepared fashion, and depending on the task, may have allowed the pharmacist to skill up specifically on a topic. In addition, none of the JPB tasks specifically address care prioritisation on a ward, focusing instead on reviewing care at an individual patient level. This means the assessor may not actually be seeing a snapshot of their overall practice on a day to day basis.

Senior pharmacist (and technician) competency to deliver the clinical services set out in SOPs agreed with care areas may also need to be assessed, in order to assure care is being delivered to the same standards and outcomes to all patients at all times. This can be challenging but handled sensitively could enable senior staff to feel a more integral part of ward based services and gain more job satisfaction from their clinical role, rather than feeling they are a stopgap when staff levels are low or feeling out of their depth because their clinical knowledge for the care areas they are being asked to cover may be inadequate or out of date, despite the fact that they are a senior member of the pharmacy team.

Links to Examples from practice
L&D: B6 roles and competencies
L&D: Roles for Band 6 pharmacists
GSTT: Cardiac pharmacy team roles and responsibilities
GSTT: Surgery GI trigger tool
GSTT: Prioritising patients on surgical wards
DVH: Clinical pharmacy priorities for pharmacist ward work
Practitioner Support

Practitioners at all levels require support as well as supervision. This is particularly the case for staff new in post or whose capability may be in question. If adequate support is unavailable it can lead to loss of confidence and worsening performance. Three main options are available and could be considered. For small organisations or specialist roles support could be drawn from practitioners working in other trusts.

- **Clinical supervision.** There is most experience of this in nursing; however even in nursing there is variability in how it is managed and delivered. Essentially clinical supervision is set aside time for focused reflection and consideration of practice, in order to improve practice. It can be done on a 1:1 basis or in small groups. A clear understanding of the role of the clinical supervisor, probably associated with some training, is needed. ([Further reading on Clinical Supervision](#))

- **Mentoring.** This is generally defined as getting agreement for a more experienced, often more senior member of staff to support another. However, it may also be a similar grade of staff supporting a new member of staff starting a new role. It is important that the roles are clearly defined and that the mentor and mentee are comfortable with each other. In many mentoring programmes the mentee approaches the mentor and asks for support, rather than the other way around. However, when the mentorship is around performing a specific role in a trust rather than supporting career and life choices, this may be less appropriate. However, there must be an appreciation of the differences between a mentor’s supportive role towards a fellow professional, and performance management.

- **Peer support.** This can be helpful, particularly in organisations where networks are more difficult to forge. It may be in the form of regular work-based meetings to share clinical practice or complex patients, or perhaps as a journal club. It may also have a social connotation. Ideally it should be confined to a peer group (e.g. B6 & 7’s) with offers of support from more senior staff as needed, in order to distinguish this kind of support from clinical supervision or a training session.
Section 3. CUSTOMISING SERVICES

Some pharmacy departments provide services to care areas under Service Level Agreements (SLAs) which may reflect funding arrangements. For example, a directorate or care area may purchase a specific amount of pharmacy service time, be invoiced on activity, or may fund one or more pharmacy posts. It is likely that such bespoke services will be different for different care areas, depending on funding availability and directorate priorities. Other hospitals have no formal agreements within their organisation for the provision or level of pharmaceutical care and are funded as overall operational costs within the organisation with the requirement to deliver pharmacy services within an overall staffing budget with no specific provisos on what that service should include. It is important that clinical pharmacy managers have a clear understanding of how their service is commissioned internally and funded.

Even if formal arrangements are not in place, levels of pharmacy service may be determined by pharmacy staffing levels within the organisation and the overall organisational priorities. Ensuring organisational priorities and expectations are met is explored in depth in the Clinical Service Redesign Toolkit developed for use by the SPS (link).

Historically determined pharmacy staffing levels plus the freedom to deliver pharmacy services as felt appropriate may have led to service delivery varying significantly across the organisation. This is often particularly noticeable when hospitals merge. This may manifest as different levels of service offered to different groups of patients depending on site and staffing levels. For example, services to admission units may be very comprehensive or non-existent; maternity units may have a daily service or none at all, and medical wards a visit once or twice daily or a pharmacy presence throughout working hours. Reviewing the use of pharmacy staff at ward level across the whole organisation may be a valuable opportunity to step back and ascertain if historical working practices are appropriate in the current NHS climate. The Clinical Service redesign toolkit may help with these decisions.

However, the key variables in service provision are likely to centre around the extent or type of delivery of the following which may be historical or evidence based and these need to be clarified for your organisation and the reason for the decisions explored. Again, the Clinical Service Redesign Toolkit may help you.

- Medicines reconciliation
- Frequency and length of visits
- Grade of staff providing the clinical service
- Level of patient counselling
- Attendance on ward rounds
- Support for medicines policy development
- Support for recommending and monitoring the cost effective use of agents
- Resources (e.g. presence of satellite pharmacies or ward based relabelling facilities etc.)

Services may also be customised to reflect the workflow of the ward and the pharmacy department and to ensure staff deliver what is required of them in the time available. QIPP priorities may also influence service provision, for example if priority has been allocated to reducing waste by recycling medicines or to ensuring agreed therapeutic substitutions.

Some organisations have customised their ward-level services to reflect pharmacy staffing levels on a day-to-day basis (i.e. as an adjunct to capacity planning) or by defining to the ward what type of service can be expected each day.
3.1 Models of service delivery

Although there are many different ways of delivering a clinical pharmacy service to wards, they mainly fall into three broad models and the advantages and disadvantages of each can be evaluated against the three criteria listed at the beginning of this resource:

- Desired patient outcomes
- Desired pharmacist outcomes
- Organisational outcomes

The three models explored in Appendix 1 are:

- Visit at a predefined time by a junior or senior pharmacist
- Ward-based junior pharmacist with or without extra pharmacy support
- Pharmacy team delivering services to a defined set of wards.

The links below are to models of service which have been drawn up by organisations in order to specify to ward staff what can be expected from a pharmacy visit.

Links to examples in practice
- Addenbrookes directorate level SLA
- Imperial operational model
- NWLH gold silver bronze
Section 4. MAKING EFFECTIVE USE OF STAFF TIME

For ward level services not governed by an SLA with an external organisation or a directorate, the pharmaceutical care level offered may be optimised by considering the following parameters:

- Type of ward
- Ward ways of working
- Staff availability

(a) Type of ward

Although all wards and units can care for very complex patients, some wards by definition are more likely to have more complex patients and may require a pharmacy team with specialised knowledge beyond Band 6/7 capability to deliver an adequate service. However, even on specialist wards there may be opportunities for junior team members to screen and refer patients to a specialist pharmacist thus enabling senior and junior pharmacist time to be focused on patients with the greatest need and not wasted on unnecessary chart or laboratory results review, or tasks that are considerably lengthened by an inadequate knowledge or lack of experience.

If pharmacist time is at a premium, closer working with other members of the ward team (see section on patient prioritisation) may be vital.

(b) Ward ways of working

It is easy to deliver a service in a certain way and this resource and the Clinical Service Redesign Toolkit present an opportunity to stand back and review your current delivery of pharmacy services and reflect on whether staff are used to best effect.

For example, many pharmacists visit the wards first thing in the morning, with the intention that work comes down to the pharmacy department relatively early in the day. However, if they are visiting several wards they may always go round in the same sequence without returning to pharmacy which means that a lot of work actually arrives into the dispensary late morning and is not delivered until mid-afternoon, even though the need for the drug was identified early in the morning. Although staff may feel they are doing their best, such practices may contribute to dispensary stress and delayed and omitted doses.

Sometimes services are delivered to fit in with the requirements of the pharmacy service rather than being attuned to the patient pathway and organisational needs. For example, pharmacy visits before a ward round are unlikely to be productive and may lead to duplication of work (e.g. supplies initiated during the pharmacy visit then patient therapy changed and patient discharged). Although attendance on the ward round may not always be a good use of time, a short targeted visit after a ward round may be.

It may be effective to use a clinical assistant or technician to identify items to be supplied and patients requiring clinical review before 8.30am and (for some units) again in the early afternoon, returning with items to be dispensed by 9am or so and then again by 2pm. By the time the item is delivered after dispensing the pharmacist will have had an opportunity to screen the prescription. This has the advantage of spreading workload in the dispensary and prioritising the pharmacists’ use of time during a ward visit. Revisiting a ward after a ward round when patients are highly likely to have been discharged may also pre-empt delays in discharge, as will having a team member available on wards at times when there are predictable discharge needs to check PODs and dispense prepacks, thus avoiding charts going to the dispensary.
(c) Staff availability

Optimal use of skill mix is key to both improving pharmaceutical care outcomes and to offering job satisfaction and reducing stress levels. However, many departments are constrained by their staff resource and may need to consider carefully whether it is better to offer a good service to several key patient care areas and none to others, or whether to offer a low level service to all patients primarily centred around supply and discharge.

Many departments now have large numbers of part time staff at every level, perhaps working school hours, which may leave parts of the working day or working week short of staff. However, there may also be opportunities to ask for some flexibility from current and future staff and to review current individual working patterns. Many staff like to spend the early part of their day in their offices, sorting out problems identified the previous day or catching up with other staff, when those periods of time may be more usefully deployed on the wards and will have considerable benefits with respect to workload redistribution, particularly impacting on workload late afternoon. Time for office activities will then be freed up later in the day. Some staff may be willing to alter their hours slightly, perhaps come in earlier and finish earlier, which might help match pharmacy services to the ways different wards and units work and thereby help relieve the dispensary workload, and facilitate clinical deployment of staff. As staff request to go part time, contracts could be agreed which facilitate this more flexible approach to pharmacy service provision.

Optimising skill mix and matching visits with ward need are key to making the best use of available staff time. However, it is vital to ensure that staff providing clinical services are clear about which kind of pharmacy service takes priority in a time-limited situation. This can be covered in an SOP. It could be a generic list or customised to individual ward settings. An example could look as follows:

**Example: Ward B: General surgery (unplanned)**

(Note: This is only a fabricated guide - your list will very much depend on locally agreed priorities and tasks may be divided between pharmacists and technicians. For example, Reviewing IV antibiotics or VTE prophylaxis may be a much higher priority for this patient group in some organisations)

Priority 1: TTOs
Priority 2: Clinical review of new patients ensuring medicines reconciled
Priority 3: Review previously admitted patients on ‘high risk drug’ list

(If time permits) Priority 4: Reviewing IV antibiotic therapy against antibiotic policy
(If time permits) Priority 5: Counselling patients started on new medicines

The SOP would continue with guidance on how best to identify the priority patient groups. Inevitably this approach to service delivery will mean some routine tasks must be dropped or delivered differently. It may also mean not all tasks customarily associated with a ward pharmacy service can be performed at each visit.

Questionnaires sent to ward staff in trusts across E&SE England and used to support clinical pharmacy service redesign clearly indicated that the least valued pharmacy activity by ward staff is routine monitoring of the patient, which is seen to be the role of the doctor. Pharmacy teams need to learn to identify and focus on high risk patients and not try to monitor every patient in the same way by re-reviewing charts, lab data and reading clinical notes.

Some trusts have made clear to pharmacy staff that different types of service are delivered on different days in order to ensure more systematic pharmaceutical care. For example, one day the ward visit focuses on supply issues and the next on clinical issues.
It may also be helpful to delineate how staff time will be deployed, particularly when different members of staff are working as a team to provide services (see examples at the end of the section). This will ensure roles are clear and there is no duplication of effort.

(d) Reviewing current methods of delivering care

The Service Redesign toolkit is an essential aid to overall clinical service review; however, changes may have been made in the organisation fairly recently with new processes introduced, or radical redesign may not be an option. If this is felt to be the case, close examination of the way key tasks are delivered may help ‘tweak’ current processes to improve staff productivity or to deliver desired outcomes without the need for extra resource.

It is first worth considering processes where several staff are contributing to the delivery of one task. For example, the process of medicines reconciliation can involve 2-3 members of staff: a technician or assistant to review PODs; a technician to take the drug history; a pharmacist to do the final reconciliation. This may be good use of skill mix but is confusing to patients and ward staff. If staff focus rigidly only on one small part of a job, opportunities to maximise the time spent may be lost.

Taking the example of medicines reconciliation, PODs checking and drug history taking offer excellent opportunities to identify and deal with adherence issues at the start of the patient’s stay, or to offer medicines related information or counselling on new therapies. By widening the focus of these activities slightly, productivity gains may be made. For example, staff carrying out PODs review, taking the drug history or doing the full medicines reconciliation could ask trigger questions to assess the patient’s attitudes to medicines and the ability to adhere to therapy (link). The findings could be addressed at the time, or referred to another member of staff, depending on the competencies of the staff who discovered them. Alternatively, if detailed information is captured on PODs and home supplies during the reconciliation process and documented appropriately, this will speed up the discharge process and may remove the need for final POD checks at discharge thus allowing the focus to move to provision of information to the patient on changes to their therapy.

Medicines reconciliation is also a good time to clarify allergy/drug sensitivity information and ensure it is documented accurately.

At this point it may be necessary to review what tasks are NOT a priority for pharmacy staff, but instead the primary responsibility of other members of staff and thus pharmacists are duplicating the work of nursing and medical colleagues on the wards. For example, the routine monitoring of biochemical and haematological indices for drugs which do not pose a high risk to the patient, completing VTE assessment data when this should be the responsibility of the admitting doctor, etc. Overall, pharmacy services should focus on delivering effectively the services which evidence demonstrates they do best and which contribute most to patient care, for example medicines reconciliation and patient counselling.

There is also accumulating evidence that the majority of interventions by pharmacy teams happen in the first 2-3 days of the patient admission (see also Section 5). This can be used to support decisions about frequency of visits and what services are offered to longer stay patients.

The primary purpose and value of staff time on attending ward rounds should also be reviewed and related to other uses of time in terms of patient outcomes. If large parts of a round are dedicated to social care issues or non-medicine related discussions, an opportunity might be sought with the clinical team to establish a way of having a section of the round which focuses on medicine-related issues which the pharmacist can attend. This not only makes good use of time but can raise the profile of pharmacy contributions to care.
Having taken these issues into account, it may help to draw up some guidance on how time should be apportioned by each member of a specific ward team so that they are clear what is expected of them in the time available (see example on p.20). SOPs could be drawn up to support how the delineated tasks should be carried out.

**Links to examples in practice**
- **GSTT cardiac services**
- **Darent Valley Hospital prioritisation tool**
Sample guidance for pharmacy staff delivering clinical services to a
named ward when specific timed slots for services are used (timings
could vary of course)  Note: This is a hypothetical list developed purely to show how
this might be presented for a ward with a limited am service)

(a) Technician service

8.30-9.30 Review patient board & screen all charts. Using bed list form identify:
- New patients with MR
- New patients with no MR
- Patients with new prescriptions. Use supply proforma to order required items
- Patients likely for discharge in next 48 h

For patients likely to be discharged: recheck PODs and review drugs patient has at home and clearly
annotate all info on the chart. Counsel patient as necessary. Identify patients with new prescriptions
or TTOs requiring clinical screening on the bed list.

9.30 Hand over bed list form to pharmacist. Ensure any items to be supplied reach the
dispensary by 9.45am.

9.45-11 Medicines Reconciliation for new patients without MR

(b) B6 Pharmacist Service

9-9.30 Screen pathology results for patients on wards to be visited. Identify patients with
abnormal results as per protocol. Can be done from pharmacy. Prepare high risk patient list by ward
to be visited. Manage any patient queries outstanding from previous day.

9.30-11 Ward visit.
- Clinically screen prescriptions for all patients identified by tech. Prioritise as follows:
  1. Patients for discharge with discharge script written
  2. New drug to be supplied
  3. New patients without MR
  4. New patients with MR transferred from another ward
- Ensure supplies have been initiated
- Clinically screen patients identified with abnormal lab results
- Clinically screen any other high risk patients identified from previous visits

3pm Visit to see if unexpected discharge scripts or notes in communication book re supplies.
Follow up as necessary. Identify and clinically screen the prescriptions of any patients who
have moved into the ward since previous visit (leave MR if needed to tech at next visit)

Capacity Planning

1. Technician shortage: Pharmacist clinically screens all scripts (or just as highlighted by ward staff).
Prioritise services to discharge and new supplies

2. Pharmacist shortage: Cover pharmacist clinically screens prescriptions identified by technician
only
Section 5. DEMONSTRATING THE VALUE OF PHARMACY SERVICES

(a) Outcome data

The NHS Transparency in Outcomes Framework (link) published in December 2010 set a vision of an NHS that achieves health outcomes that are among the best in the world. Outcome indicators are being set in five domains (see below) with the aim of allowing the Secretary of State for Health to track the progress of the NHS as a whole. Each domain will include some improvement areas that the NHS Commissioning Board will be tasked to pursue in order that better outcomes are achieved. Finally NICE quality standards will be set for care areas which will set out what high quality care will look like.

Domain 1 Preventing people from dying prematurely

Domain 2 Enhancing quality of life for people with long-term conditions

Domain 3 Helping people to recover from episodes of ill health or following injury

Domain 4 Ensuring that people have a positive experience of care

Domain 5 Treating and caring for people in a safe environment and protecting them from avoidable harm

The first 3 domains will focus on effectiveness, Domain 4 on patient experience and Domain 5 on safety.

Safe prescribing is key to domains 2 & 3 and especially to domain 5 and NICE have been asked to prepare a list of safe prescribing quality standards in 2011 that will be used within the framework alongside the key indicators for clinical conditions.

In preparation for demonstrating outcomes of safer prescribing, pharmacy services are well placed to collect, present, interpret and act upon a number of data sets that can be proxy measures of improved patient outcomes. These include:

- Audits of clinical interventions at ward level and in the dispensary
- Audits of outcomes from medicines reconciliation at admission
- Audits of staff and patient satisfaction with pharmacy services
- Audits of adherence to NPSA RRRs

The templates designed for the SPS Clinical Directorate collaborative audits (delivery of medicines reconciliation; omitted and wrong doses identified at medicines reconciliation; insulin events; delayed and omitted doses of antibiotics) can be found on the SPS community website (click on Medicines Safety and use search terms box to find what you require). A staff satisfaction questionnaire can be found in the Clinical Service Redesign toolkit.
(b) Data to support the cost effectiveness of pharmacy services

In the current NHS climate it is essential that the outcomes of services are measured in the context of their impact on patient care.

As services are reviewed within organizations over the next few years and departments are asked to make large savings on staffing budgets, it will be vital to be able to describe effectively what the impact of cuts in clinical activity at ward level will be.

Pharmacy services are often not clearly understood by senior members of the organisation or seen only in terms of supply of medicines. This makes the role of clinical services particularly vulnerable, especially as they often involve large numbers of expensive staff. Data will need to be available which can be used to help demonstrate the added value of clinical services in terms of patient safety, and also patient satisfaction with medicine-related services.

Audit data around the impact of clinical interventions on patient outcomes can be converted into proxy estimates of adverse drug events avoided, and hence cost avoidance by using costings calculated in the systematic review by Cambell et al which underpinned the NPSA/NICE safety solution on medicines reconciliation (link). This important review has been used by the SPS team and pharmacists in east and South East England to demonstrate the cost avoidance resulting from medicines reconciliation and clinical pharmacy interventions. The results of pieces of work carried out to demonstrate the added value of clinical pharmacy services were shared at an East and South East England Clinical Pharmacy Network day on March 10th 2011 (link), while full reports of the collaborative audits carried out by the Medicines Use and Safety Division can be found in the Medicines Safety section of the Specialist Pharmacy Services web pages on NHS Evidence (click on medicines safety and use search terms box) (link).

Local data on prescribing errors prevented through pharmacist interventions can also be compared with the EQUIP study findings (link) which investigated prescribing errors during inpatient stays and demonstrated the importance of pharmacy services in preventing medication errors. Both the EQUIP study and data collected at Kings College Hospital indicate that the majority of contributions by pharmacists occur in the first day or two of an admission.

Cost savings can be addressed more directly by collecting the following types of information:

- Cost savings from use of formulary drugs or purchasing initiatives
- Reduced waste at patient level through use of PODs and better use of ward stocks or strategies such as vial sharing
- Demonstration of appropriate use of PODs throughout the patient stay and consequent reduction of discharge medications
- Recycling of dispensed drugs returned to pharmacy and judged fit for reuse

At the Norfolk and Norwich hospital ward pharmacists have been put in charge of the ward drug budget and must demonstrate cost efficacies (shared at March 10 study day)

On the IOW, pharmacists are asked to complete a QIPP timesheet so activities can be monitored

Although such activities are not usually associated with clinical services, financial management will be one of the highest priorities in most organizations over the next few years and will be crucial to the organizations long term viability. If staffing cuts are to be avoided whenever possible, using resources effectively must become everyone’s priority. Being seen to contribute to financial savings as well as to improving quality of care will also improve the profile and value of pharmacy services both to front line clinicians and management.
Acknowledgements

I would like to thank my colleagues in the SPS team and the following members of the Clinical Pharmacy Network who have very kindly taken the time to either review and comment on various versions of the document and/or contribute materials for sharing across the network.

Susan Boorman
Caroline Broadbent
Naomi Burns
Brit Cadman
Ursula Collignon
Amanda Cooper
Gail Franklin
Cathy Geeson
Sue Ladds
Ray Lyon
Duncan McRobbie
Gavin Miller
Karen Slevin
Lindsay Smith
Christine Ward
Simon Whitfield
Simon Worrall

Linda Dodds April 2011
### Appendix 1. A review of different models of provision of pharmaceutical care

<table>
<thead>
<tr>
<th>Mode</th>
<th>Patient outcomes</th>
<th>Pharmacist outcomes</th>
<th>Organisational outcomes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. <strong>Junior</strong> pharmacist visiting ward at pre-set time</td>
<td>Needs of complex patients may not be met due to lack of time and experience</td>
<td>Can be isolating Stress resulting from set time only for care Time management issues Difficult to develop professional relationships with ward staff, particularly if rotation post May have to spend time on supply&amp; stock management better suited to lower staff grades Good experience, particularly if easy access to support available</td>
<td>May not allow fast response to discharge Minimal opportunities for patient contact (e.g. counselling)</td>
<td>Guide to prioritisation of care key to succeed Support for time management may be needed Visits should be timed to maximise pharmacy care opportunities, e.g. post ward round, post-surgical list etc. Ideally support from clinical assistant or technician to coordinate supply issues, refer patients for review, and support care e.g. by taking drug histories to maximise pharmacist time</td>
</tr>
<tr>
<td>1b. <strong>Senior</strong> pharmacist visiting ward at pre-set time</td>
<td>Experience and knowledge could ensure more complex patients managed appropriately (however expertise may not be appropriate to patient needs)</td>
<td>May have to spend time on supply&amp; stock management better suited to lower staff grades Unable to share experience and knowledge Much of work may be routine and poor use of knowledge and experience</td>
<td>Waste of staff resource on roles that could be managed by lower grade staff May not allow fast response to discharge Minimal opportunities for patient contact (e.g. counselling)</td>
<td>Could be linked to ward round attendance</td>
</tr>
<tr>
<td>2. Ward based junior pharmacist</td>
<td>Needs of complex patients may not be met due to lack of time and experience</td>
<td>Can be isolating and stressful Good experience, particularly if easy access to support available Should be time to care for patients as defined Able to feel part of ward team Increased job satisfaction May spend large part of time on tasks that could be performed by lower grades of staff</td>
<td>Allows fast response to changing patient needs Could improve discharge performance Enables more holistic provision of care with opportunities to identify and meet individual patient needs</td>
<td>If supported by clinical tech, could be good use of pharmacist resource Use of time may need to be reviewed regularly to ensure desired outcomes achieved Allows development of desirable practitioner skills</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td><strong>Patient outcomes</strong></td>
<td><strong>Pharmacist outcomes</strong></td>
<td><strong>Organisational outcomes</strong></td>
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<tr>
<td>3. Team based approach to care provision (e.g. clinical tech, junior and senior pharmacist providing care to a number of wards with cover over whole or majority of working day using bleep or similar system)</td>
<td>Needs of all patients will be met using appropriate skill mix</td>
<td>All pharmacy staff feel supported Good experience for junior staff Should be time to care for patients as defined Able to feel part of ward team Increased job satisfaction for all team members Good use of skill mix Education and training can be provided in a supported environment Faster acquisition of skills by junior pharmacist through working with senior colleague</td>
<td>Should enable more holistic care and patients’ needs better met with appropriate use of skill mix Allows fast response to changing patient needs</td>
<td>Senior pharmacist does not need to be on wards at all times, just available Clear roles and referral criteria between team required for maximum benefits Ward staff need to be clear how team works</td>
</tr>
</tbody>
</table>

May spend large part of time on tasks not leading to improved patient outcomes