NORTHERN IRELAND

CLINICAL PHARMACY STANDARDS

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Introduction

Clinical pharmacy relates to the safe, effective and economic use of medicines and contributes to the 'patient care journey' at all stages.

It is the practice of pharmacy in a multidisciplinary healthcare team directed at achieving patient treatment goals by ensuring

- The maximisation of the effectiveness and tolerability of drug treatment and minimisation of drug toxicity in individual patients
- That the correct patient receives the optimum dose of the most appropriate medicine for a specific condition via a rational dosage form and regimen over an appropriate time period
- The promotion of good prescribing practice
- That untoward effects and interactions of medicines are identified, resolved and where possible prevented
- Involvement in educating and advising patients on medicines and healthcare
- Monitoring of medicine therapy
- Involvement in prescriber education
- Involvement in research
- Provision of advice on the clinical use of medicines
- Cost effective drug utilisation
- That the quality use of medicines is promoted through other activities as appropriate

The ethos of clinical pharmacy is that pharmacists provide the standard of pharmaceutical care they would want themselves to receive. The pharmacist develops through experience, training and personal development the attitude, knowledge, skills, relationships and professional responsibilities necessary to provide an effective and efficient clinical pharmacy service. The pharmacist acts as the patient's advocate with respect to the use of medicines.

Clinical pharmacy services have been shown to:

- Identify clinically important drug-related problems
- Reduce the incidence of clinically important drug-related problems
- Improve patient education and concordance
- Improve prescribing
- Improve clinical outcomes
- Improve cost-effectiveness
- Reduce length of hospital stay

Clinical pharmacy is an integral component of medicines management.

The principle objective of this document is to improve the clinical pharmacy contribution to patient care through the development of a structured, systematic approach to clinical pharmacy practice.

Standards on the individual components of a clinical pharmacy service have been developed. These standards need to be supported by local standard operating procedures (SOPs) specific to individual trusts. Appendix 1 contains sample procedures for some of the standards that individual trusts can use to develop their own SOPs.

These standards are a working document owned by the Pharmacy Service of the five Health and Social Care Trusts in Northern Ireland. They will be regularly reviewed, built upon and expanded to ensure that they continue to be fit for purpose.

STANDARD 1
Medicine History Interview and Medicines Reconciliation

Basic Standard Requirements

An accurate medicine history is obtained on admission to hospital.

A pharmacist/ trained accredited technician in drug history taking shall obtain a medicine history from all patients and/ or their carers on admission. Where this is not possible for all patients, a pharmacist/ trained accredited technician in drug history taking shall verify the medicine history obtained by another healthcare professional. A pharmacist shall use the drug history to undertake medicines reconciliation.

1.1 A local SOP exists of how to take a medicine history and how to complete medicines reconciliation.

1.2 The SOP states where the medicine history is recorded and how medicines reconciliation is documented.

1.3 A medicine history is documented or verified by a pharmacist/ trained accredited technician as soon as possible after admission to hospital, ideally within 24 hours.

1.4 The medications are reconciled by a pharmacist as soon as possible after admission to hospital, ideally within 24 hours.

1.5 The medicine history includes:

- current and recently prescribed medicines
- over the counter medicines
- clinical trial medicines
- unlicensed medicines
- herbal and homeopathic remedies
- Chinese remedies or any other alternative remedies
- recreational drug use, smoking status, alcohol consumption, using appropriate professional judgment where appropriate

1.6 The medicine history documents relevant recent vaccination history where applicable. This will depend on the age and presenting complaint of the patient.

1.7 The medicine history documents any known previous adverse drug reactions.

1.8 The medicine history documents any known allergies / sensitivities including non drug allergies/ sensitivities. The type of reaction is documented when known.

1.9 The patient's current therapy is assessed in light of the patient's presenting condition for appropriateness and alterations made if necessary in conjunction with medical staff.

Advanced requirements

1.10 Any possible drug related admissions are identified and recorded.

1.12 Any history of previous or current non-concordance with therapy is documented.

1.12 It is documented where the medicine history is obtained. At least two sources are used. Sources include:

- The patient and/ or their carer
- The patient's own drugs (PODs)
- The patient's GP practice/ emergency care summary
- The community pharmacy the patient uses at least 75% of the time
- The admitting hospital when a transfer has occurred

When a source other than the patient or his/her PODs is used a written format of the medicine history should be obtained. When this is not possible the information may be obtained verbally. The patient's identity is confirmed by his/her name, address and date of birth. The pharmacist requests the information about the patient's prescribed medicines. If there is any uncertainty of a medicine's name the pharmacist should ask for it to be spelt out. The pharmacist should read back the verbal information they have received to the other member of staff to confirm accuracy. Where possible the verbal transfer of information should be followed within 24 hours with written information. This should be reviewed to ensure that the verbal transfer has taken place correctly

Why it is important

The goal of the medicine history interview is to obtain information on drug use that may assist in the overall care of the patient. Pharmacists with their broad knowledge of a wide range of drugs and dose forms and their uses are the most competent healthcare professionals to undertake this task. The information gathered can be used to:

- Undertake medicines reconciliation to ensure that the medicines prescribed on admission correspond to those the patient was taking before admission. This is done by comparing the medicine history with the prescription chart(s) and investigating and recording discrepancies. Any inaccuracies should be corrected. If a prescribing or administration

incident has occurred this must be reported and the patient appropriately managed.

- Verify medicine histories taken by other staff and provide additional information where appropriate
- Document allergies, sensitivities and adverse reactions and nature and date of reaction where known
- Screen for drug interactions
- Screen for adverse effects
- Assess patient medicine concordance
- Assess the rationale for prescribed drugs
- Assess the evidence of drug abuse
- Appraise drug administration techniques
- Examine the need for medicine aids
- Document patient initiated medicines and patient initiated changes to prescribed medicines

The medicine history interview enables pharmacists to:

- Establish a direct relationship with the patient and explain their role in patient care
- Understand the patient's needs and desired outcome
- Obtain medicine related information
- Commence preliminary education and reinforce the principles of the quality use of medicines
- Identify any problems with current medicines as perceived by the patient
- Use the information obtained to form the basis of an ongoing pharmaceutical care plan

Medicine History Interview and Medicines Reconciliation

An accurate medicine history is obtained on admission to hospital.
A pharmacist/ trained accredited technician in drug history taking shall obtain a medicine history from all patients and/ or their carers on admission. Where this is not possible for all patients, a pharmacist/ trained accredited technician in drug history taking shall verify the medicine history obtained by another healthcare professional. A pharmacist shall use the drug history to undertake medicines reconciliation.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medicine History Interview and Medicines Reconciliation	**Y**	**N**	**N/A**			
1.1 A local SOP exists of how to take a medicine history and how to complete medicines reconciliation.	☐	☐	☐			
1.2 The SOP states where the medicine history is recorded and how medicines reconciliation is documented.	☐	☐	☐			
1.3 A medicine history is documented or verified by a pharmacist/ trained accredited technician as soon as possible after admission to hospital, Ideally within 24 hours.	☐	☐	☐			
1.4 The medications are reconciled by a pharmacist as soon as possible after admission to hospital, ideally within 24 hours.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medicine History Interview and Medicines Reconciliation	**Y**	**N**	**N/A**			
1.5 The medicine history includes: • current and recently prescribed medicines • over the counter medicines • clinical trial medicines • unlicensed medicines • herbal and homeopathic remedies • Chinese remedies or any other alternative remedies • recreational drug use, smoking status alcohol consumption, using professional judgement where appropriate.	☐	☐	☐			
1.6 A vaccination history is documented where applicable. This will depend on the age and presenting complaint of the patient.	☐	☐	☐			
1.7 The medicine history documents any known previous significant adverse drug reactions.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medicine History Interview and Medicines Reconciliation	**Y**	**N**	**N/A**			
1.8 The medicine history documents any known allergies / sensitivities including non drug allergies / sensitivities. The type of reaction is documented when known.	☐	☐	☐			
1.9 The patient's current therapy is assessed in light of the patient's presenting condition for appropriateness and alterations made if necessary in conjunction with medical staff.	☐	☐	☐			
1.10 Any possible drug related admissions are identified and recorded.	☐	☐	☐			
1.11 Any history of previous or current non-concordance with therapy is documented.	☐	☐	☐			
1.12 The sources used to obtain the medicine history are documented. More than one source should be used.	☐	☐	☐			

STANDARD 2
Medicine Therapy Monitoring (Pharmaceutical Care)

Basic Standard Requirements

Pharmacists provide medicine therapy monitoring routinely to all patients. Where this is not possible criteria shall exist to identify patients who would benefit most from medicine therapy monitoring. This criteria includes:

- Patients taking 4 or more regular medicines
- Patients taking a high risk drug e.g.
  - Angiotensin-converting enzyme inhibitors/ Angiotensin-11 receptor antagonists
  - Antidepressants (including lithium)
  - Beta blockers
  - Clopidogrel
  - Digoxin
  - Diuretics
  - Insulin/ oral hypoglycaemics
  - Methotrexate
  - NSAIDs
  - Opiates
  - Prednisolone
  - Anticoagulants/ Warfarin,
  - Anti-infectives
  - Antiparkinson drugs
  - Antiepileptics
  - Clozapine
  - Potassium
  - Any medicine deemed a critical medicines where timeliness of administration is crucial

  This is not an exhaustive list
- Patients who have been readmitted to hospital within 6 months of previous discharge

2.1 A local SOP exists for medicine therapy monitoring and methods of prioritising patients e.g. MEWS score.

2.2 The pharmacist assesses the patient's pharmaceutical needs and identifies the patient's pharmaceutical care issues.

2.3 The pharmacist formulates a pharmaceutical care plan that:

- prioritises the patient's pharmaceutical care issues
- identifies the desired outcomes for the patient
- proposes pharmaceutical actions and a monitoring strategy to achieve the desired outcomes

- is recorded as an action plan if appropriate of 1 to 2 points in the patient's medical notes

2.4 The pharmacist implements, monitors and reviews the pharmaceutical care plan.

Why it is important

Pharmaceutical care is 'The responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life'. The goal of medicine therapy monitoring is to optimise medicine therapy for the individual patient and involves:

- Collation and interpretation of patient specific information continuously throughout a patient's admission using sources such as medical notes, laboratory results etc.
- Identification of a patient's pharmaceutical care issues
- Identification of desired therapeutic outcomes the pharmacist intends to achieve for a patient in relation to their pharmaceutical care issues
- Review of medicine therapy
- Formulation and implementation of a monitoring strategy to measure progress towards the desired outcomes
- Review of outcomes
- Modification of patient management if required
- Help prevent omitted or delayed doses especially of critical medicines.

Medicine therapy monitoring encompasses a number of clinical pharmacy activities simultaneously including:

- Medicine History Interview and Medicines Reconciliation (Standard 1)
- Prescription monitoring and review (Standard 3)
- Adverse drug reaction management (Standard 4)
- Prevention, detection, assessment & management of drug interactions (Standard 5)
- Therapeutic drug monitoring (Standard 6)

Medicine Therapy Monitoring

Pharmacists provide medicine therapy monitoring routinely. Criteria shall exist to identify patients who would benefit most from medicine therapy monitoring.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medicine Therapy Monitoring	**Y**	**N**	**N/A**			
2.1 A local SOP exists for medicine therapy monitoring and methods of prioritising patients e.g. MEWS score.	☐	☐	☐			
2.2 The pharmacist assesses the patient's pharmaceutical needs and identifies the patient's pharmaceutical care issues.	☐	☐	☐			
2.3 The pharmacist formulates a plan for pharmaceutical care. This need not be a separate document.	☐	☐	☐			
2.4 The pharmacist implements, monitors and reviews the pharmaceutical care plan.	☐	☐	☐			

STANDARD 3
Prescription Monitoring and Review

Basic Standard Requirements

Patients' prescription charts are monitored and reviewed in conjunction with the patient's medical notes and relevant medical laboratory results by a pharmacist at regular intervals. The recommended intervals are:

- Acute wards — once daily
- Intermediate stay wards — once weekly
- Rehabilitation wards, community hospital wards — once weekly
- Long stay psychiatric/ learning difficulties — once a month

3.1 A local SOP exists for prescription monitoring and review.

3.2 Patients' prescription charts are monitored and reviewed by a pharmacist as soon as possible after admission, ideally within 24hours. Where possible the patient should be present.

3.3 Prescription monitoring and review is repeated at regular intervals as defined above throughout the patient's admission.

3.4 The patient's administration record is reviewed to determine non-administration and to resolve any issues e.g. patient nil by mouth, swallowing difficulties.

3.5 Pharmacists endorse prescriptions to add clarity to the original prescription, if applicable.

3.6 Pharmacists initial and date a medication on the kardex once clinically checked.

3.7 A local SOP exists for prescription endorsement by pharmacists.

3.8 If a medication incident or a near miss has occurred it is reported according to the local policy/ procedure for reporting medication incidents or near misses.

3.9 Any queries regarding the prescription are resolved with the prescriber.

3.10 If a new allergy/ sensitivity is identified during the patient's admission, this is documented in the patient's medical notes with the nature of the reaction and the patient's prescription chart is amended as appropriate.

3.11 A written annotation of these discussions is made in the patient's medical notes or pharmacy records/ profiles as appropriate.

Advanced requirements

3.12 A pharmacist reviews all prescriptions for 'high risk' drugs (except in emergency situations) before the first dose is dispensed or administered.

Examples of high risk drugs include:

- Angiotensin-converting enzyme inhibitors/ Angiotensin-11 receptor antagonists
- Antidepressants (including lithium)
- Beta blockers
- Clopidogrel
- Digoxin
- Diuretics
- Insulin/ oral hypoglycaemics
- Methotrexate
- NSAIDs
- Opiates
- Prednisolone
- Anticoagulants/ Warfarin,
- Anti-infectives
- Antiparkinson drugs
- Antiepileptics
- Clozapine
- Potassium
- Any medicine deemed a critical medicines where timeliness of administration is crucial

This is not an exhaustive list

Why it is important

The purpose of prescription monitoring and review is to optimise the patient's drug therapy. This includes ensuring that the right patient receives the right drug at the right dose by the right route at the right time. Through prescription monitoring and review the pharmacist identifies problems or opportunities for optimising treatment and medicine related problems are minimised. Outcomes of treatment are reviewed and the patient's response to therapy is evaluated.

Prescription Monitoring and Review

Patients' prescription charts are monitored and reviewed by a pharmacist at regular intervals.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Prescription monitoring and review	**Y**	**N**	**N/A**			
3.1 A local SOP exists for prescription monitoring and review.	☐	☐	☐			
3.2 Patients' prescription charts are monitored and reviewed by a pharmacist as soon as possible after admission, ideally within 24hours. Where possible the patient should be present.	☐	☐	☐			
3.3 Prescription monitoring and review is repeated at regular intervals throughout the patient's admission	☐	☐	☐			
3.4 The patient's administration record is reviewed to determine non-administration and to resolve any issues	☐	☐	☐			
3.5 Pharmacists endorse prescriptions to add clarity to the original prescription, if applicable.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Prescription monitoring and review	**Y**	**N**	**N/A**			
3.6 Pharmacists initial and date a medication on the kardex once clinically checked.	☐	☐	☐			
3.7 A local SOP exists for prescription endorsement by pharmacists.	☐	☐	☐			
3.8 If a medication incident or a near miss has occurred it is reported according to the local policy/ procedure for reporting medication incidents or near misses.	☐	☐	☐			
3.9 Any queries regarding the prescription are resolved with the prescriber.	☐	☐	☐			
3.10 If a new allergy/ sensitivity is identified during the patient's admission, this is documented in the patient's medical notes with the nature of the reaction and the patient's prescription chart is amended as appropriate.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Prescription monitoring and review	**Y**	**N**	**N/A**			
3.11 A written annotation of these medication related discussions is made in the patient's medical notes / charts or pharmacy records/ profiles as appropriate.	☐	☐	☐			
3.12 A pharmacist reviews all prescriptions for 'high risk' drugs (except in emergency situations) before the first dose is dispensed or administered.	☐	☐	☐			

STANDARD 4
Prevention, detection, assessment and management of adverse drug reactions

Basic Standard Requirements

The World Health Organisation defines an adverse drug reaction as 'any response to a drug which is noxious, unintended and occurs at doses used in man for prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function'.

The following groups of patients are at increased risk of an adverse drug reaction:

- Patients taking multiple drug therapy
- The older patient
- Neonates and the newborn
- Patients with renal disease
- Patients with liver disease
- Intercurrent disease e.g. the increased incidence of adverse reactions to co-trimoxazole in AIDS patients
- Women – adverse drug reactions are more common in women than men
- Race and genetic polymorphism – this may account for alterations in the handling of drugs and their end-organ effects.
- Patients taking a high risk drug
  - Angiotensin-converting enzyme inhibitors/ Angiotensin-11 receptor antagonists
  - Antidepressants (including lithium)
  - Beta blockers
  - Clopidogrel
  - Digoxin
  - Diuretics
  - Insulin/ oral hypoglycaemics
  - Methotrexate
  - NSAIDs
  - Opiates
  - Prednisolone
  - Anticoagulants/ Warfarin,
  - Anti-infectives
  - Antiparkinson drugs
  - Antiepileptics
  - Clozapine
  - Potassium
  - Any medicine deemed a critical medicines where timeliness of administration is crucial

  This is not an exhaustive list

Pharmacists contribute to the prevention, detection, assessment, management and reporting of adverse drug reactions (ADRs).

4.1 A local SOP exists for the monitoring and reporting of ADRs.

4.2 Patients at risk of an ADR are identified and monitored.

4.3 Medicines with high incidence of adverse reactions or that are known to cause serious adverse reactions are closely monitored.

4.4 Admission of a patient to hospital due to an adverse drug reaction is documented in the patient's medical notes.

4.5 ADRs are discussed with the multidisciplinary team and documented in patients' medical notes or the patient's prescription chart according to local guidance to prevent re-exposure.

4.6 The following ADRs are reported using the Yellow Card Scheme:

- All serious suspected adverse reaction to established medicines and vaccines
  Serious reactions include those that are:
  - fatal
  - life-threatening
  - disabling
  - incapacitating
  - congenital abnormality
  - involve hospitalisation
  - and/ or are medically significant
- All adverse reactions (including those considered to be non-serious) suspected to be associated with black triangle medicines
- All suspected adverse reactions that occur in children associated with either established or new medicines and vaccines

4.7 GPs are notified on discharge by the doctor or pharmacist of significant ADRs their patients have experienced, when appropriate to prevent re-exposure.

Advanced requirements

4.8 Community pharmacists are notified by the pharmacist of significant ADRs their patients have experienced, when appropriate to prevent re-exposure.

4.9 Patients who have experienced serious reactions are provided with written information and 'alert cards' if available. (Medic alert jewellery is available from www.medicalert.co.uk.)

Why it is important

Pharmacists play an important role in the prevention, detection, assessment, management and reporting of adverse drug reactions (ADRs). Emphasis should be on the prevention of ADRs and on the prevention of re-exposure in patients who have already experienced an ADR.

Prevention, Detection, Assessment and Management of Adverse Drug Reactions.

Pharmacists contribute to the prevention, detection, assessment, management and reporting of adverse drug reactions (ADRs).

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Adverse Drug Reactions	**Y**	**N**	**N/A**			
4.1 A local SOP exists for the monitoring and reporting of ADRs.	☐	☐	☐			
4.2 All patients at risk of an ADR are monitored.	☐	☐	☐			
4.3 Medicines with high incidence of adverse reactions or that are known to cause serious adverse reactions are closely monitored.	☐	☐	☐			
4.4 Admission of a patient to hospital due to an adverse drug reaction is documented in the patient's medical notes	☐	☐	☐			
4.5 ADRs are discussed with the multidisciplinary team and documented in patients' medical notes or the patient's prescription chart according to local guidance to prevent re-exposure.						
4.6 Appropriate ADRs are reported using the Yellow Card Scheme	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Adverse Drug Reactions	**Y**	**N**	**N/A**			
4.7 GPs are notified on discharge by the doctor or pharmacist of significant ADRs their patients have experienced, when appropriate to prevent re-exposure.	☐	☐	☐			
4.8 Community pharmacists are notified by the pharmacist of significant ADRs their patients have experienced, when appropriate to prevent re-exposure.	☐	☐	☐			
4.9 Patients who have experienced serious reactions are provided with verbal information and if available written information or 'alert cards'.	☐	☐	☐			

STANDARD 5
Prevention, Assessment and Management of Drug Interactions

Basic Standard Requirements

A drug interaction occurs when the effects of one drug are changed by the presence of another drug, food, drink or by some environmental chemical change.

Pharmacists monitor for potential and existing drug interactions when monitoring and reviewing patient's medicine therapy.

5.1 A local SOP exists for the prevention, assessment and management of drug interactions.

When reviewing patients drug therapy pharmacists:

5.2 Identify patients at risk of drug interactions and suggest suitable methods of management.

5.3 Inform the prescriber and other appropriate healthcare professionals when drugs that have a clinically significant drug interaction are prescribed.

5.4 Details of known clinically significant interactions are documented in the patient's medical notes.

5.5 Interactions with adverse consequences are reported according to the organisation's incident reporting policy. Appropriate action is taken to avoid recurrence.

Why it is important

Drug interaction can cause enhanced action, reduced efficacy, increased incidence of adverse effects or misinterpretation of laboratory tests.

Prevention, Assessment and Management of Drug Interactions

Pharmacists monitor for potential and existing drug interactions when monitoring and reviewing patient's medicine therapy.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Prevention, assessment and management of drug interactions	**Y**	**N**	**N/A**			
5.1 A local SOP exists for the prevention, assessment and management of drug interactions.	☐	☐	☐			
5.2 Pharmacists identify patients at risk of drug interactions and suggest suitable methods of management	☐	☐	☐			
5.3 Pharmacists inform the prescriber and other appropriate healthcare professionals when a known clinically significant drug interaction is prescribed.	☐	☐	☐			
5.4 Details of known clinically significant interactions are documented in the patient's medical notes.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Prevention, assessment and management of drug interactions	**Y**	**N**	**N/A**			
5.5 Interactions with adverse consequences are reported according to the organisation's incident reporting policy. Appropriate action is taken to avoid recurrence.	☐	☐	☐			

STANDARD 6
Therapeutic Drug Monitoring

Basic Standard Requirements

Pharmacists to optimise therapy for medicines where there is a known, close relationship between serum concentration and therapeutic effect and adverse effect use therapeutic Drug Monitoring (TDM).

6.1 A local SOP exists for therapeutic drug monitoring. The SOP details
- how to request monitoring
- lists those drugs that require TDM
- how to identify patients who will benefit from TDM

6.2 Pharmacists ensure optimal dosage selection for maximum therapeutic benefit and minimum adverse effects.

6.3 Pharmacists offer guidance on timing of samples, dose adjustment and monitor relevant laboratory results and resultant therapeutic effects.

Advanced requirements

6.4 Pharmacists will specialise in TDM in appropriate clinical fields.

Why it is important

Before undertaking TDM the desired therapeutic outcome must be identified, the target serum concentration of a particular medicine may be dependant on the desired clinical outcome.

TDM may also be used to assess a patient's concordance with treatment.
TDM should only be undertaken in conjunction with clinical review of the patient. This includes:

- Physical signs and clinical symptoms.
- Therapeutic appropriateness of the drug therapy.
- Therapeutic duplication in drug therapy.
- Appropriateness of the route and method of administration.
- Patient concordance with the prescribed treatment.
- Potential and actual drug interactions.
- Clinical and laboratory test results.

Therapeutic Drug Monitoring

Therapeutic Drug Monitoring is used by pharmacists to optimise therapy for medicines where there is a known relationship between serum concentration and therapeutic effect.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Therapeutic Drug Monitoring	**Y**	**N**	**N/A**			
6.1 A local SOP exists for therapeutic drug monitoring. The SOP details • how to request monitoring • lists those drugs that require TDM • how to identify patients who willl benefit from TDM	☐	☐	☐			
6.2 Pharmacists ensure optimal dosage selection for maximum therapeutic benefit and minimum adverse effects	☐	☐	☐			
6.3 Pharmacists offer guidance on timing of samples, dose adjustment and monitor relevant laboratory results and resultant therapeutic effects.	☐	☐	☐			
6.4 Pharmacists will specialise in TDM in appropriate clinical fields.	☐	☐	☐			

STANDARD 7
Prevention, identification, management and reporting of medication incidents

Basic Standard Requirements

Pharmacists contribute to the prevention, identification, management and reporting of medication incidents.

7.1 A local SOP exists for the prevention, identification, management and reporting of medication incidents.

7.2 Pharmacists work in collaboration with medical, nursing, midwifery and other relevant staff groups in the prevention, identification, management and reporting of medication incidents.

7.3 All identified medication incidents are reported according to the organisation's incident reporting policy.

7.4 The reporting of medication incidents by other professional staff is promoted.

7.5 The systems approach to medication incident management is supported and promoted.

7.6 Policies that support the safe use of medicines are implemented and adhered to.

Advanced Requirements

7.7 Medication related risk is proactively identified and managed within the area of clinical responsibility.

7.8 Medication incident data is submitted for regional collation.

Why it is important

Medication incidents are the most preventable cause of patient harm. Pharmacists have an integral role in protecting patients by promoting the safe use of medicines. A medication incident is defined as any preventable medication related event that could have or did lead to patient harm, loss or damage. Medication incidents may occur at any stage of the medication use process - prescribing, dispensing or administration and as part of clinical pharmacy activity. It is important that all medication incidents are reported, irrespective of whether the event reached the patient or caused harm, to ensure that opportunities for learning are not overlooked.

Prevention, identification, management and reporting of medication incidents

Pharmacists contribute to the prevention, identification, management and reporting of medication incidents.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medication Incidents	**Y**	**N**	**N/A**			
7.1 A local SOP exists for the prevention, identification, management and reporting of medication incidents	☐	☐	☐			
7.2 Pharmacists work in collaboration with medical, nursing, midwifery and other relevant staff groups in the prevention, identification, management and reporting of medication incidents.	☐	☐	☐			
7.3 All incidents identified by a pharmacist are reported according to the organisation's incident reporting policy.	☐	☐	☐			
7.4 The reporting of medication incidents by other professional staff is promoted.	☐	☐	☐			
7.5 The systems approach to medication incident management is supported and promoted.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Medication Incidents	**Y**	**N**	**N/A**			
7.6 Policies that support the safe use of medicines are implemented and adhered to.	☐	☐	☐			
7.7 Medication related risk is proactively identified and managed within the area of clinical responsibility.	☐	☐	☐			
7.8 Medication incident data is submitted for regional collation.	☐	☐	☐			

STANDARD 8
Multidisciplinary Working

Basic Standard Requirements

Where appropriate the pharmacist shall attend ward rounds and clinical meetings as a member of the healthcare team.

8.1 A local SOP exists for the participation of pharmacists in ward rounds and clinical meetings. This includes description of the pharmacist's role and how they use their clinical and communication skills.

8.2 Pharmacists participate routinely in ward rounds and multi-disciplinary clinical meetings where they can have the most impact and gather the most relevant information.

8.3 Pharmacists on ward rounds:

- Provide evidence based medicines information.
- Promote rational medicine therapy.
- Influence prescribing at the time of decision making.
- Identify pharmaceutical care issues
- Act as the patient's advocate

Why it is important

Participation in ward rounds:

- will give the pharmacist an improved understanding of the patient's clinical details, treatment plan and desired outcomes
- allow the pharmacist to provide pharmaceutical information regarding the patient's medicine therapy at the point of prescribing
- optimises prescribing of medicines medicine treatment by the pharmacist influencing therapy selection, implementation of therapy and monitoring of therapy
- improves discharge planning

Multidisciplinary Working

Where appropriate the pharmacist shall attend ward rounds and clinical meetings as a member of the healthcare team.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Multidisciplinary Working	**Y**	**N**	**N/A**			
8.1 A local SOP exists for the participation of pharmacists in ward rounds and clinical meetings. This includes description of the pharmacist's role and how they use their clinical and communication skills.	☐	☐	☐			
8.2 Pharmacists participate in ward rounds and multi - disciplinary clinical meetings where they can have the most impact and gather the most relevant information *	☐	☐	☐			
8.3 Pharmacists on ward rounds:						
8.3.1 Provide medicines information *	☐	☐	☐			
8.3.2 Promote rational medicine therapy *	☐	☐	☐			
8.3.3 Influence prescribing at the time of decision making *	☐	☐	☐			
8.3.5 identify pharmaceutical care issues *	☐	☐	☐			

*This is measured by pharmacist activity and intervention data

STANDARD 9
Provision of Medicines Information Advice by Pharmacists

Basic Standard Requirements

Pharmacists have a responsibility to provide appropriate, evidence based timely information and advice on medicine-related matters to meet the requirements of healthcare providers and patients and/ or their carers.

9.1 A local SOP exists for the provision of medicines information by pharmacists.

9.2 Pharmacists ensure medicine selection follows local guidelines, formulary, regional contracts, pharmacoeconomic reviews and availability where applicable.

9.3 All pharmacists should be trained to respond to medicines information needs in a systematic & timely method. This can be undertaken by completing the United Kingdom Medicines Information (UKMi) rolling training programme.

9.4 Pharmacists are able to provide accurate, relevant and evidence based medicines information.

9.5 Pharmacists are aware of, and understand how to use the available medicines information resources.

9.6 Pharmacists use the experience and resource of a medicines information department when appropriate.

9.7 Pharmacists providing medicines information and advice are competent in interpersonal communication techniques.

9.8 Enquiries associated with immediate patient care requirements are given priority.

9.9 Pharmacists keep up to date with changes in medicinal products and therapeutic advances.

9.10 The information provided should be in a form appropriate for the situation and personnel involved i.e. phone/email, formal letter etc.

9.11 The advice given should be documented in an appropriate place i.e. the patient's medical notes and/or the Medicines Information enquiry form.

Advanced requirements

9.12 Pharmacists are proactively involved in medicines information through:

- Provision of education and training
- Published medication advice

Why it is important

The involvement of pharmacists in the provision of medicines information advice is to contribute to patient care and optimise drug therapy. It is essential for the safe and effective use of medicines in patients

A variety of medicines information and advice activities may be provided.

These include:

- Providing medicines information/ advice to healthcare providers, patients and carers
- Establishing and maintaining an evidence based formulary, prescribing guidelines which also consider safety, cost and patient factors
- Developing and participating in medicines governance activities e.g. medicine incident reporting
- Providing information about adverse drug reactions
- Developing policies and procedures relating to medicines
- Developing methods of changing patient and healthcare provider behaviour to optimise medicine use
- Publishing newsletters and patient information on medicine use to educate patients, carers and healthcare providers Information should be shared between different hospitals to avoid duplication of effort.
- Drug use evaluation
- Educating healthcare providers on medicine related policies and procedures
- Providing continuing education to other healthcare professionals
- Educating pharmacy students, pre-registration pharmacists and junior pharmacists
- Advising on the legal and ethical considerations regarding unlicensed medicines and the use of licensed medicines outside their product licence
- Developing and maintaining an active research and audit programme

The information or advice provided may be initiated by the pharmacist e.g. from the findings of drug therapy monitoring or be in response to an enquiry from a healthcare provider, patient or carer.

Medicines information may be particularly helpful for drugs:

- That are unlicensed newly marketed or about which there is little available information

- That are associated with specific requirements which if not followed may adversely affect the patient
- Of which individual healthcare providers have limited experience

Pharmacists need to be aware of their own limitations and when to refer back to the local or regional Medicines Information.

Provision of Medicines Information and Advice by Pharmacists

Pharmacists have a responsibility to provide appropriate, evidence based, timely information and advice on medicine-related matters to meet the requirements of healthcare providers and patients and/or their carers.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Provision of Medicines Information and Advice	**Y**	**N**	**N/A**			
9.1 A local SOP exists for the provision of medicines information by pharmacists.	☐	☐	☐			
9.2 Pharmacists ensure medicine selection follows local guidelines, formulary, regional contracts, pharmacoeconomic reviews and availability where applicable.	☐	☐	☐			
9.3 All pharmacists should be trained to respond to medicines information needs in a systematic & timely method. This can be undertaken by completing the UKMi rolling training programme	☐	☐	☐			
9.4 Pharmacists provide accurate, relevant and evidence based medicines information. (This is measured by MI enquiry records)	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Provision of Medicines Information and Advice	**Y**	**N**	**N/A**			
9.5 Pharmacists are aware of and understand the available medicines information resources. (This is measured by MI enquiry records)	☐	☐	☐			
9.6 Pharmacists use the experience and resource of a medicines information department when appropriate.	☐	☐	☐			
9.7 Pharmacists providing medicines information and advice are appraised in relation to interpersonal communication techniques. (This is measured by peer review)	☐	☐	☐			
9.8 Enquiries associated with immediate patient care requirements are given priority. (This is measured by MI enquiry forms)	☐	☐	☐			
9.9 Pharmacists keep up to date with changes in medicinal products and therapeutic advances. (This is measured from pharmacist CPD records)	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Provision of Medicines Information and Advice	**Y**	**N**	**N/A**			
9.10 The information is provided in a form appropriate for the situation and personnel involved. (This is measured by an MI pharmacist assessing the pharmacist's competency during training or assessment of a random sample of completed MI enquiries by an MI pharmacist)	☐	☐	☐			
9.11 The advice given should be documented in an appropriate place i.e. the patient's medical notes and/or the Medicines Information enquiry form.	☐	☐	☐			
9.12 Pharmacists are proactively involved in medicines information through: • Provision of education and training • Published medication advice	☐	☐	☐			

Please note this is not a standard for Medicines Information Departments

STANDARD 10
Discharge

Basic Standard Requirements

The pharmacist ensures that all medicines prescribed at discharge are clinically accurate and appropriate. The patient is dispensed a supply of their prescribed medicines and is provided with accurate, up-to date information about their medicines. Accurate and up-to date information of a patient's medicines at discharge is safely and effectively communicated to primary care healthcare professionals.

10.1 A local SOP exists for the responsibilities of the pharmacist at discharge.

10.2 The pharmacist is actively involved in discharge planning.

10.3 Prior to discharge, the pharmacist reviews the current pharmaceutical care plan, anticipates any potential pharmaceutical care issues and liases with primary care and if appropriate the Pharmacist Interface Network to ensure arrangements are in place for continuity of care. This should be recorded as clinical activity performed by the pharmacist.

10.4 The pharmacist checks that all the medicines prescribed at discharge are clinically accurate and appropriate

10.5 Pharmacists clinically check the written or electronic information to primary care healthcare professionals when the patient is discharged detailing:

- Current medicines.
- Changes to medicine and the reason for the change.
- Information needed to continue supply of medicine within primary care.
- Monitoring requirements e.g. warfarin

A copy of this information is filed in the patient's medical notes or within pharmacy.

10.6 The pharmacist/ accredited checking pharmacy technician (ACPT) ensures that the patient is dispensed an appropriate quantity of medicines according to local guidance.

10.7 The pharmacist ensures that the patient is educated on prescribed medicines as appropriate and receives reinforcement of the need to adhere to the prescribed treatment, especially where there is a risk or previous history of non concordance (standard 11)

Advanced requirements

10.8 If a patient is discharged outside of pharmacy opening hours the discharge is followed up by a pharmacist by the next working day after discharge.

Why it is important

Discharge planning prevents hospital discharge being delayed due to medicines not being available. One stop dispensing and the reuse of patients own drugs schemes can be used to help discharge planning. However policies and procedures need to be put in place to ensure that patient safety is maintained.

Liaison with primary care healthcare professionals will ensure continuity of prescribed medicines and their supply. It also allows appropriate monitoring of new or altered medicines to be performed.

Special problems e.g. concordance issues, medicine aids, patient education can also be communicated.

Discharge

The pharmacist ensures that all medicines prescribed at discharge are clinically accurate and appropriate. The patient is dispensed a supply of their prescribed medicines and is provided with accurate, up-to date information about their medicines. Accurate and up-to date information of a patient's medicines at discharge is safely and effectively communicated to primary care healthcare professionals.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Discharge	**Y**	**N**	**N/A**			
10.1 A local SOP exists for the responsibilities of the pharmacist at discharge.	☐	☐	☐			
10.2 The pharmacist is actively involved in discharge planning.	☐	☐	☐			
10.3 Prior to discharge, the pharmacist reviews the current pharmaceutical care plan, anticipates any potential pharmaceutical care issues and liases with primary care and if appropriate the Pharmacist Interface Network to ensure arrangements are in place for continuity of care. This should be recorded as clinical activity performed by the pharmacist.	☐	☐	☐			
10.4 The pharmacist checks that all the medicines prescribed at discharge are clinically accurate and appropriate	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Discharge	**Y**	**N**	**N/A**			
10.5 Pharmacists clinically check the written or electronic information to primary care healthcare professionals when the patient is discharged detailing: •Current medicines. •Changes to medicine and the reason for the change. •Information needed to continue supply of medicine within primary care. •Monitoring requirements e.g. warfarin A copy of this information is filed in the patient's medical notes or within pharmacy.	☐	☐	☐			
10.6 The pharmacist / ACPT ensures that the patient is dispensed an appropriate quantity of medicines according to local guidance.	☐	☐	☐			
10.7 The pharmacist ensures that the patient is educated on prescribed medicines as appropriate and receives reinforcement of the need to adhere to the prescribed treatment, especially where there is a risk or previous history of non concordance	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Discharge	**Y**	**N**	**N/A**			
10.8 If a patient is discharged outside of pharmacy opening hours the discharge is followed up by a pharmacist by the next working day after discharge.	☐	☐	☐			

STANDARD 11
Patient Medicine Education

Basic Standard Requirements

Medicine education services shall be provided to patients or their carers where appropriate. If this is not possible categories of patients where maximal benefit is likely should be identified.

11.1 A local SOP exists for patient medicine education. The SOP identifies patients who would benefit most from medicine education. These include:

- Patients with serious and/or unstable disease states
- Patients admitted to hospital due to an iatrogenic cause
- Patients receiving specific medicines e.g. drugs with a narrow therapeutic index such as warfarin
- Patient started on a novel device e.g. inhaler device, insulin device, use of oral syringe
- Patients taking investigational medicine
- Patients treated with complex drug regimens
- Patients on four or more regular medicines
- Patients whose established medicines have been altered including new medicines, changed doses, discontinued drugs
- Elderly patients
- Paediatric patients and their guardians
- Patients identified as non-intentional non-concorders rather than those choosing not to concord on the basis of informed judgement
- Patients with language or reading difficulties
- Patients with impaired vision or hearing difficulties
- Patients with mental health problems and/ or learning difficulties
- Patients with dexterity problems

11.2 Pharmacists provide medicine education services to all patients. Where this is not possible patients who would benefit most from medicine education are identified.

11.3 Pharmacists ensure patients receive a PIL on discharge and have access to a PIL on request during admission according to European Legislation.

11.4 Patients are provided with verbal information in a form they can understand.

11.5 Where other health care professionals provide patient medicine education pharmacists should guide and advise as appropriate.

11.6 Pharmacists are involved in multidisciplinary patient education e.g. cardiac rehab, respiratory rehab, falls rehab where resources have been secured.

11.7 Medicine education should be documented in the patient's medical or multidisciplinary notes.

Advanced requirements

11.8 Patients are provided with written information in a form they can understand.

Why it is important.

The goal of patient medicine education is to provide information directed at encouraging safe and appropriate use of medicine thereby improving therapeutic outcomes. Pharmacists have a responsibility to provide sufficient information and education to ensure patients and/or their carers have the knowledge, skills and facilities to use their medicines and appliances appropriately. Pharmacists should encourage patients to seek further information on their medications if required..

Patient Medicine Education

Medicine education services shall be provided to all patients. If this is not possible categories of patients where maximal benefit is likely should be identified.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Patient Medicine Education	**Y**	**N**	**N/A**			
11.1 A local SOP exists for patient medicine education	☐	☐	☐			
11.2. Pharmacists provide medicine education services to all patients. Where this is not possible patients who would benefit most from medicine education are identified	☐	☐	☐			
11.3 Pharmacists ensure patients receive a PIL on discharge and have access to a PIL on request during admission according to European Legislation	☐	☐	☐			
11.4 Patients are provided with verbal information in a form they can understand	☐	☐	☐			
11.5 Where other health care professionals provide patient medicine education pharmacists should guide and advise as appropriate	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Patient Medicine Education	**Y**	**N**	**N/A**			
11.6 Pharmacists are involved in multidisciplinary patient education e.g. cardiac rehab, respiratory rehab, falls rehab where resources have been secured.	☐	☐	☐			
11.7 Medicine education is documented in the patient's medical or multidisciplinary notes	☐	☐	☐			
11.8 Patients are provided with written information in a form they can understand	☐	☐	☐			

STANDARD 12
Continuing Professional Development for Pharmacists

Basic Standard Requirements

Pharmacists must maintain and update their clinical and pharmaceutical knowledge relative to their sphere of practice through active participation in continuing professional development (CPD), in-service training and formal postgraduate diploma and degree courses.

Examples of CPD include formal courses and work shadowing.

12.1 Pharmacists participate in and record at least 30 hours of Continuing Professional Development (CPD) each year.

12.2 Pharmacists training needs are identified through self-assessment, peer review, professional audit and performance appraisal. These needs should then be met by participation in educational activities including:

- Attainment of postgraduate qualifications
- Attendance and contribution at relevant clinical meetings and conferences relevant to his/ her sphere of practice
- Participation in a recognised continuing education programme
- Review of relevant literature
- Participation in education programmes for pharmacists.

12.3 Pharmacists training needs and how these are met must be documented.

12.4 Pharmacists starting practice in a ward or department, which is unfamiliar to them are provided with an orientation and training programme, which is competency based. This programme is tailored to the experience and practice of the pharmacist and is co-ordinated by a suitably experienced pharmacist.

12.5 Education and training outcomes of pharmacists are reflected in practice and improvement in the quality of pharmaceutical care e.g. CPD cycles and how they impact on patient safety.

12.6 Where there is a defined role, pharmacists are trained as non medical prescribers in accordance with local procedure /practice.

12.7 A standard induction programme for clinical pharmacy practice exists with a written record of competence of each component to ensure consistency of training

12.8 Pharmacist competencies are reviewed on an ongoing basis for each area they work in

Why it is important

As advocates of best practice, the Pharmaceutical Society of Northern Ireland has introduced continuing professional development as a professional requirement from 1st June 2005 for all pharmacists registered in Northern Ireland as part of a system of good clinical governance. Pharmacists are required to undertake at least 30 hours of continuing professional development each year.

'Revalidation is a mechanism that allows health professionals to demonstrate that they remain up-to-date and can demonstrate that they continue to meet the requirements of their professional regulator' (Department of Health, 2008. Principles for revalidation: report of the working group for non-medical revalidation; Professional Regulation and Patient Safety Programme).

The report of the working group outlines the key principles for the development of non-medical revalidation proposals. Principle 5 is 'Continuing Professional Development', which is defined as the process by which individual registrants keep themselves up to date with healthcare developments in order to maintain the highest standards of professional practice. The report states that CPD should be seen as an integral part of revalidation and may provide supporting evidence that a practitioner submits to the regulatory body. From June 2013 CPD is a statutory requirement for registration with the Pharmaceutical Society of Northern Ireland.

Part 2 of the RPSGB Code of Ethics and its Appendix on 'Standards of Professional Performance' require that pharmacists must continually review the skills and knowledge required for their field of practice, identifying those skills or knowledge most in need of development or improvement and audit their performance as part of the review.

Participation in CPD allows the pharmacist to develop professionally and to provide a quality service.

Continuing Professional Development of Pharmacists

Pharmacists must maintain and update their clinical and pharmaceutical knowledge relative to their sphere of practice through active participation in continuing professional development (CPD), in-service training and formal postgraduate diploma and degree courses.
Examples of CPD include formal courses and work shadowing.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
CPD	**Y**	**N**	**N/A**			
12.1 Pharmacist participate in and record at least 30 hours of Continuing Professional Development (CPD) each year.	☐	☐	☐			
12.2 Pharmacists training needs are identified through self-assessment, peer review, professional audit and performance appraisal.	☐	☐	☐			
12.3 Pharmacists training needs and how these are met are documented.	☐	☐	☐			
12.4 Pharmacists starting practice in a ward or department, which is unfamiliar to them are provided with an orientation and training programme, which is competency based. This programme is tailored to the experience and practice of the pharmacist and is co-ordinated by a suitably experienced pharmacist.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Education and Training	**Y**	**N**	**N/A**			
12.5 Education and training outcomes of pharmacists are reflected in practice and improvement in the quality of pharmaceutical care e.g. CPD cycles and how they impact on patient safety.	☐	☐	☐			
12.6 Where there is a defined role, pharmacists are trained as non medical prescribers in accordance with local procedure /practice.	☐	☐	☐			
12.7 A standard induction programme for clinical pharmacy practice exists with a written record of competence of each component to ensure consistency of training	☐	☐	☐			
12.8 Pharmacist competencies are reviewed on an ongoing basis for each area they work in	☐	☐	☐			

STANDARD 13
Resources

Basic Standard Requirements

Appropriate resources must be available for the provision of a clinical pharmacy service and to provide CPD opportunities for pharmacists irrespective of their working patterns.

The following resources are recommended:

13.1 Access to up-to-date medicines information and medical literature as suggested by the UKMi (United Kingdom Medicines Information national network)

13.2 Information technology facilities

13.2 Appropriate work space and environment as per Health Estates Acute Hospital – Standard Data Sheet T0125HEA Medicines Management and T0601HEA Clean Utility

13.4 Support and resources for involvement in CPD activities, training and research

13.5 Appropriate staffing levels and structure (Standard 14).

13.6 Access to patient specific information

Why it is important

Recommended resources allow the efficient provision of a clinical pharmacy service.

Resources

Appropriate resources must be available for the provision of a clinical pharmacy service and to provide CPD opportunities for pharmacists irrespective of their working patterns.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Resources	**Y**	**N**	**N/A**			
13.1 Pharmacists have access to up-to-date medicines information and medical literature	☐	☐	☐			
13.2 The pharmacy department has information technology facilities	☐	☐	☐			
13.3 The pharmacy department/ ward team has appropriate work space and environment as per Estates Acute Hospital standard data sheets T0125HEA and T0601HEA	☐	☐	☐			
13.4 Pharmacists are provided with support and resources for involvement in CPD activities, training and research	☐	☐	☐			
13.5 The pharmacy department has appropriate staffing levels and structure (Standard 14).	☐	☐	☐			
13.6 Pharmacists have access to adequate patient specific information	☐	☐	☐			

STANDARD 14
Staffing Levels and Structure

Basic Standard Requirements

Staffing levels and structure are in place to provide patient-focused pharmaceutical care.

14.1 Adequate staff levels are established and maintained to provide a continuous and consistent clinical pharmacy service (Table 1).

14.2 Adequate support staff levels are available to perform non-clinical functions (Table 1).

Why it is important

Staffing structure will be determined by the size and type of hospital, bed occupancy, local management and local resources. General guidance with bed type and pharmacist and technician ratios is shown in table 1.

Staffing Levels and Structure

Staffing levels and structure are in place to provide patient-focused pharmaceutical care.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Staffing Structure and Levels	**Y**	**N**	**N/A**			
14.1 Adequate staff levels are established and maintained to provide a continuous and consistent clinical pharmacy service	☐	☐	☐			
14.2 Adequate support staff levels are available to perform non-clinical functions	☐	☐	☐			

Table 1: Clinical Pharmacy Staffing Levels to Provide a Clinical Pharmacy Service

Hospital Area	Pharmacist Ratio	Technician Ratio	Reference
General Medicine Cardiology Oncology Inpatients Haematology Inpatients Other comparable specialities	Pharmacist time per admission 102 minutes	Technician time per admission 83 minutes	NI timings 2012 (appendix 2)
General Surgery Orthopaedics	Pharmacist time per admission 80 minutes	Technician time per admission 64 minutes	NI timings 2012 (appendix 2)
Gynae	Pharmacist time per admission 67 minutes	Technician time per admission 51 minutes	NI timings 2012 (appendix 2)
Paediatrics	Pharmacist time per admission 36 minutes	Technician time per admission 14 minutes	NI timings 2012 (appendix 2)
Acute Elderly Care	Pharmacist time per admission 160 minutes	Technician time per admission 141 minutes	NI timings 2012 (appendix 2)
Acute Psychiatry	Pharmacist time per admission 181 minutes	Technician time per admission 84 minutes	NI timings 2012 (appendix 2)
Maternity			Further work needed
ENT			Further work needed
Long stay Psychiatric Long stay learning difficulties Long stay Elderly Care Other comparable specialities			Further work needed
ICU / HDU†	0.05-0.1 wte pharmacist for each single level 3* bed and for every two level 2† beds	0.1 technician per bed/ cot station	NHS Modernisation Agency 2002
Neonatal	10-20minutes per cot per day		British Association of Perinatal Medicine 2010
Accident and Emergency	1 pharmacist per 100,000 attendances	1 technician per 100,000 attendances	Further work needed using conversion rates

Hospital Area	Pharmacist Ratio	Technician Ratio	Reference
Cystic Fibrosis Patients HIV Patients Other comparable specialities	0.3 pharmacist per 50 registered patients	0.3 technician per 50 registered patients	Further work needed
Pharmacy led Clinics (based on half day clinic session and half day preparation/ follow up)	0.2 pharmacist per clinic	-	Further work needed
Specialist Teams	0.5 pharmacist per team	-	Further work needed
Clinics - STD	0.1 pharmacist per 1000 patient visits	-	Further work needed
Renal replacement therapy	1 wte pharmacist per 250 RRT patients		National Renal Workforce Planning Group 2002 Further work needed re renal clinics and pre dialysis patients
Renal transplant	1 wte pharmacist per 60 transplants per annum		National Renal Workforce Planning Group 2002

†Level 2 Patients requiring more detailed observations or interventions including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care.

*Level 3 Patients requiring advanced respiratory support alone or basic respiratory support together with the support of at least two organs systems. This level includes all complex patients requiring support for multi-organ failure.

STANDARD 15
Documentation

Basic Standard Requirements

Pharmacists activities that contribute to patient care shall be appropriately documented

15.1 Contribution to patient care may be documented in the patient's medical notes when appropriate according to local policy. However written documentation should not replace verbal communication. This may include:

- Medicine history and medicines reconciliation
- Response to patient specific questions from other members of the healthcare team
- Recommendations for medicines optimisation
- Recommendations for laboratory monitoring
- ADR assessment and management recommendations
- Potential drug interactions
- Patient education details
- Medicine Information enquiries

This is not an exhaustive list

15.2 Pharmacists clinical activity, workload and interventions are documented according to local SOPs

15.3 Pharmacists interventions are documented and classified according to locally agreed procedures

15.4 Medicine related incidents are documented and reported according to local medicine incident reporting policy and procedure (Standard 7)

15.5 Any other activity that improves the quality of patient care is documented e.g. medicines information supplied

15.7 Documentation is retained according to local guidelines

Why it is important

Any activity undertaken by a pharmacist that affects patient care should be documented making a permanent record of the pharmacist's concerns, actions and recommendations.

When making an entry in patient medical, nursing or multidisciplinary notes the pharmacist should:

- Write in photocopiable ink
- Designate the entry
- Date and time the entry
- Follow a SOAP SEQUENCE
  - ❖ Subjective relevant patient details
  - ❖ Objective clinical findings
  - ❖ Assessment of the situation/ problem
  - ❖ Proposed management plan
- Limit comments to recommendations to allow discussion
- Document any discussion with medical or nursing staff
- Only use approved abbreviations
- Sign the entry, print name and designation beside signature and provide bleep number or contact number if applicable

Any entry in a patient's notes is a legal record.

Workload and clinical activity documentation can be used to provide evidence of the effect of clinical pharmacy services on patient care. It can also be used to obtain adequate resources for continuity of service.

Intervention recording and classification of the type of intervention allows the outcome of pharmacists' clinical activities to be qualified and quantified.

Medicine incidents are documented to allow investigation of the incident as appropriate, a review of processes to occur to prevent recurrence and can be used as a source of learning (standard 7).

Documentation

Pharmacists activities that contribute to patient care shall be appropriately documented

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Documentation	**Y**	**N**	**N/A**			
15.1 Contribution to patient care is documented in the patient's medical notes when appropriate	☐	☐	☐			
15.2 Pharmacists clinical workload and activity is documented according to local SOPs	☐	☐	☐			
15.3 Pharmacists interventions are documented and classified according to locally agreed procedures	☐	☐	☐			
15.4 Medicine related incidents are documented according to local medicine incident reporting policy and procedure	☐	☐	☐			
15.5 Any other activity that improves the quality of patient care is documented	☐	☐	☐			
15.6 Documentation is retained according to local guidelines	☐	☐	☐			

STANDARD 16
Quality of Clinical Pharmacy Services

Basic Standard Requirements

A continuous quality improvement system shall exist to assess and assure the quality of the clinical pharmacy service.

16.1 Pharmacists are involved in ongoing quality improvements that may be used to assure the quality of the clinical pharmacy service. These include:

- Clinical audit
- Peer review
- Benchmarking
- Review of workload statistics
- Review of interventions
- Review of medication incidents
- Education and training
- Compliance with regional and national directives
- Formal research
- Horizon scanning

16.2 Quality improvements are shared with other Trusts in Northern Ireland , and the United Kingdom and internationally. This may be done through publications and presentations at local and national and international conferences.

Why it is important

Quality may be described as a level of excellence that gives user satisfaction and ensures that a product or service is fit for the purpose intended.

Quality of Clinical Pharmacy Services

A continuous quality improvement system shall exist to assess and assure the quality of the clinical pharmacy service.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Quality of Clinical Pharmacy Services	**Y**	**N**	**N/A**			
16.1 Pharmacists are involved in ongoing quality improvements	☐	☐	☐			
16.1.1 Pharmacists are involved in clinical audit	☐	☐	☐			
16.1.2 Pharmacists are involved in peer review	☐	☐	☐			
16.1.3 Pharmacists are involved in benchmarking	☐	☐	☐			
16.1.4 Pharmacists are involved in production of workload statistics	☐	☐	☐			
16.1.5 Pharmacists are involved in review of interventions	☐	☐	☐			
16.1.6 Pharmacists are involved in review of medication incidents	☐	☐	☐			
16.1.7 Pharmacists are involved in education and training of pharmacists and other healthcare professionals.	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Quality of Clinical Pharmacy Services	**Y**	**N**	**N/A**			
16.1.8 Pharmacists comply with regional and national directives	☐	☐	☐			
16.1.9 Pharmacists are involved in formal research	☐	☐	☐			
16.2 Quality improvements are shared with other Trusts in Northern Ireland, the United Kingdom and internationally. This may be done through publications and presentations at local, national and international conferences.	☐	☐	☐			

STANDARD 17
Health Promotion

Basic Standard Requirements

Pharmacists are involved in health promotion to promote good health and prevent disease by helping individuals change attitudes to health damaging behaviour and encourage individuals to change their lifestyle.

17.1 Pharmacists provide health education information so that patients can make informed choices in their lifestyle and behaviour e.g. fitness and diet

17.2 Pharmacists increase awareness of current issues in health promotion e.g. participate in national and local health campaigns

17.3 Pharmacists participate in disease prevention strategies, reducing the risk of developing preventable illness or progression of disease by adopting a healthier approach e.g. smoking cessation programmes, vaccination programmes

17.4 Pharmacists contribute to health protection initiatives through education and ensuring that treatment is optimised to prevent further deterioration in health e.g. cardiac, respiratory and falls rehab classes, production and adherence to safe systems of work, policies and procedures for the storage, handling, administration and disposal of medicines

Why it is important

The World Health Organisation defines health as ‘a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity’.

Health promotion refers to any measure designed to achieve health and prevent disease and is concerned with influencing health choices. It involves health education, disease prevention and health protection.

Pharmacists can reduce the risk of preventable disease by assisting in the prevention of adverse drug reactions and minimising the risk of developing known or dose related adverse drug reactions

Health Promotion

Pharmacists are involved in health promotion to promote good health and prevent disease by helping individuals change attitudes to health damaging behaviour and encourage individuals to change their lifestyle.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Health Promotion	**Y**	**N**	**N/A**			
17.1 Pharmacists provide health education information so that patients can make informed choices in their lifestyle and behaviour	☐	☐	☐			
17.2 Pharmacists increase awareness of current issues in health promotion	☐	☐	☐			
17.3 Pharmacists participate in disease prevention strategies, reducing the risk of developing preventable illness or progression of disease by adopting a healthier approach	☐	☐	☐			
17.4 Pharmacists contribute to health protection initiatives by educating and ensuring that treatment is optimised to prevent further deterioration in health	☐	☐	☐			

STANDARD 18
Pharmacoeconomic Evaluation of the use of Medicines

Basic Standard Requirements

Pharmacists are involved in the pharmacoeconomic evaluation of the use of medicines to ensure that medicines are used appropriately, safely, effectively and economically.

18.1 Pharmacists evaluate medicine expenditure and usage on a monthly basis to:

- Identify medicine usage issues and trends
- Identify high cost medicines
- Identify high usage medicines
- Identify whether there is an underspend, overspend or that expenditure is within budget.
- Highlight reasons for deviation from budget expenditure

18.2 There is a close working relationship between the finance department and pharmacy department whereby expenditure evaluation is explained to the finance department, requests for funding for medicine use are agreed and future cost pressures identified.

18.3 Pharmacists are involved in evaluating medicine use e.g. prescribing pattern audits and interpreting and reporting the evaluation findings to the Drug and Therapeutics Committee to recommend changes in medicine use practice

Why it is important

Pharmacoeconomic evaluation of the use of medicines is a multidisciplinary structured, ongoing, organisationally authorised, quality assurance process designed to ensure that medicines are used appropriately, safely, effectively and economically. It is complemented by:

- effective, concurrent drug therapy monitoring by pharmacy staff
- continuous education on appropriate drug use and
- assessment of patient outcome.

Pharmacoeconomic Evaluation of the use of Medicines

Pharmacists are involved in the pharmacoeconomic evaluation of the use of medicines to ensure that drugs are used appropriately, safely, effectively and economically.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Pharmacoeconomic evaluation of the use of medicines	Y	N	N/A			
18.1 Pharmacists evaluate medicine expenditure and usage on a monthly basis	☐	☐	☐			
18.1.1 Pharmacists identify medicine usage issues and trends	☐	☐	☐			
18.1.2 Pharmacists identify high cost medicines	☐	☐	☐			
18.1.3 Pharmacists identify high usage medicines	☐	☐	☐			
18.1.4 Pharmacists identify whether there is an underspend, overspend or that expenditure is within budget	☐	☐	☐			
18.1.5 Pharmacists highlight reasons for deviation from budget expenditure	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Pharmacoeconomic evaluation of the use of medicines	Y	N	N/A			
18.2 There is a close working relationship between the finance department and pharmacy department whereby expenditure evaluation is explained to the finance department, requests for funding for medicine use are agreed and future cost pressures identified.	☐	☐	☐			

STANDARD 19
Pharmacist Clinics

Basic Standard Requirements

Pharmacist clinics are managed by pharmacists with appropriate knowledge, experience and training.

19.1 A local SOP exists to guide practice for pharmacist clinics.

19.2 A defined role for the pharmacist is determined in consultation with medical staff and other relevant health professionals.

19.3 The pharmacist completes a training package and/ or induction programme to work in the clinic. If appropriate the pharmacist is a trained non medical prescriber (Standard 20).

19.4 Criteria exist to aid the appropriate referral of patients to medical staff and other health professionals.

19.5 Pharmacists maintain their specialist clinical knowledge in their field of practice.

19.6 Criteria exist to identify patients who require regular review.

19.6.1 The pharmacist regularly attends multidisciplinary team meetings linked to the area of practice.

19.8 The pharmacist's contribution to patient care is documented in the patient's medical notes and if appropriate communicated with the multidisciplinary team and relevant primary health care professionals.

Why it is important

Pharmacists manage clinics in various fields of practice. Examples include:

- Renal
- Cystic Fibrosis
- Pain
- Anticoagulation
- Diabetes
- Pre-operative assessment
- Respiratory
- HIV
- Oncology/ haematology

Pharmacist clinics encompasses a number of clinical pharmacy activities simultaneously including:

- Medicine History Interview and Medicines Reconciliation (Standard 1)
- Prescription monitoring and review (Standard 3)
- Adverse drug reaction management (Standard 4)
- Prevention, detection, assessment & management of drug interactions (Standard 5)
- Therapeutic drug monitoring (Standard 6)
- Patient medicine education (Standard 11)
- Pharmacoeconomic evaluation of the use of medicines (Standard 18)

Pharmacist Led Clinics

Pharmacist led clinics are managed by pharmacists with appropriate knowledge, experience and training.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Pharmacist led clinics	**Y**	**N**	**N/A**			
19.1 A local SOP exists to guide practice for pharmacist led clinics	☐	☐	☐			
19.2 A defined role for the pharmacist is determined in consultation with medical staff and other relevant health professionals	☐	☐	☐			
19.3 The pharmacist completes a training package and/ or induction programme to work in the clinic. If appropriate the pharmacist is a trained non medical prescriber	☐	☐	☐			
19.4 Criteria exist to aid the appropriate referral of patients to medical staff and other health professionals	☐	☐	☐			
19.5 Pharmacists maintain their specialist clinical knowledge in their field of practice	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Pharmacist led clinics	**Y**	**N**	**N/A**			
19.6 Criteria exist to identify patients who require regular review	☐	☐	☐			
19.7 The pharmacist regularly attends multidisciplinary team meetings linked to the area of practice	☐	☐	☐			
19.8 The pharmacist's contribution to patient care is documented in the patient's medical notes and if appropriate communicated with the multidisciplinary team and relevant primary health care professionals.	☐	☐	☐			

STANDARD 20
Non medical Prescribing (Pharmacist)

Basic Standard Requirements

Pharmacists who work as non medical prescribers must have completed appropriate training and have their Trust's support to work within their field of practice.

Pharmacists who work as supplementary or independent prescribers:

20.1 Have at least 2 years post registration experience.

20.2 Have completed supplementary and/ or independent prescribing training, including 12 days supervised practice.

20.3 Are on the Trust's prescribing register.

20.4 Are annotated as a supplementary or independent prescriber on the register of the Pharmaceutical Society of Northern Ireland.

20.5 Have the agreement of a consultant in their field(s) of practice.

20.6 Keep up to date and participate in CPD in their field of practice as part of their 30 hours of annual CPD.

20.7 Supplementary prescribers work within an agreed patient-specific clinical management plan with the patient's agreement.

20.8 Maintain and develop the appropriate skills of a non medical prescriber.

20.9 Are aware of their own limitations and when to refer to the patient's consultant.

Why it is important

In 1999, the Review of Prescribing, Supply and Administration of Medicines led by Dr June Crown suggested the introduction of a new form of prescribing to be undertaken by non-medical health professionals after a diagnosis had been made and a Clinical Management Plan drawn up for the patient by a doctor. Among the healthcare professionals named as prospective supplementary prescribers were pharmacists.

Supplementary prescribing is a voluntary prescribing partnership between an independent prescriber and a supplementary prescriber, to implement an agreed patient-specific clinical management plan with the patient's agreement.

In May 2006 following extensive consultation and advice from the Committee of Safety of Medicines, The Prescription Only Medicines Order (POM Order), which is UK wide legislation, was changed to allow independent prescribing by suitably trained nurses and pharmacists. Further changes to the HPSS Primary Medical Services Regulations in Northern Ireland in August 2006 allowed the provisions in the POM Order to be applied in the context of HPSS services thus enabling suitably trained pharmacists in Northern Ireland to practice as independent prescribers. The definition of pharmacist independent prescribing is:

'…a practitioner (e.g. doctor, dentist, nurse, pharmacist) responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required, including prescribing.'

Non Medical Prescribing (Pharmacists)

Pharmacists who work as non medical prescribers must have completed appropriate training and have their Trust's support to work within their field of practice.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Non Medical Prescribing (Pharmacists)	**Y**	**N**	**N/A**			
Pharmacists who work as supplementary or independent prescribers:						
20.1 Have at least 2 years post registration experience	☐	☐	☐			
20.2 Have completed supplementary and/ or independent prescribing training, including 12 days supervised practice	☐	☐	☐			
20.3 Are on the Trust's prescribing register	☐	☐	☐			
20.4 Are annotated as a supplementary or independent prescriber on the register of the Pharmaceutical Society of Northern Ireland	☐	☐	☐			
20.5 Have the agreement of a consultant in their field(s) of practice	☐	☐	☐			
20.6 Keep up to date and participate in CPD in their field of practice as part of their 30 hours of annual CPD	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Non Medical Prescribing (Pharmacists)	**Y**	**N**	**N/A**			
Pharmacists who work as supplementary or independent prescribers:						
20.7 Supplementary prescribers work within an agreed patient-specific clinical management plan with the patient's agreement	☐	☐	☐			
20.8 Maintain and develop the appropriate skills of a supplementary or independent prescriber	☐	☐	☐			
20.9 Are aware of their own limitations and when to refer to the patient's consultant	☐	☐	☐			

STANDARD 21
Communication

Basic Standard Requirements

Pharmacists use communication skills to build more effective relationships with patients and other health professionals.

21.1 Pharmacists identify and respond to key pharmaceutical care issues requiring follow up.

21.2 Pharmacists communicate key pharmaceutical care issues to the necessary health professionals in primary and secondary care.

Why it is important

Communication is central to all aspects of professional health care and promotion. It includes the following skills:

- Specialised knowledge
- Practical skills
- Social and interpersonal skills
- Rapport
- Agenda setting
- Information collection/ management
- Active listening
- Addressing feelings
- Reaching common ground.

Communication

Pharmacists use communication skills to build more effective relationships with patients and other health professionals.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Communication	**Y**	**N**	**N/A**			
21.1 Pharmacists identify and respond to key pharmaceutical care issues requiring follow up	☐	☐	☐			
21.2 Pharmacists communicate key pharmaceutical care issues to the necessary health professionals in primary and secondary care	☐	☐	☐			

STANDARD 22
Self Administration of Medicines

Basic Standard Requirements

Patients may undertake routine self administration of their medicines where a specific local procedure approved by the Trust's Drug and Therapeutics Committee is in place.

22.1 A local SOP approved by the Trust's Drug and Therapeutics Committee exists for patient self administration of medicines.

22.2 Suitable patients are assessed for self administration by a designated member of staff who has undergone appropriate training.

22.3 Patients consent to self administer their medicines after receiving education, information and details of their responsibilities whilst self medicating.

22.4 Patients have immediate access to GTN sprays for the relief of angina pain and beta adreno-receptor agonist bronchodilator inhalers.

22.5 Medicines other than immediate access medicines are stored securely to prevent misuse by others.

22.6 A record of the dose and frequency of self administered medicine is made on the inpatient drug administration chart.

Why it is important

Self administration of medicines by patients has many benefits including:

- Helping patients achieve/ maintain a greater degree of independence during their stay
- Identifying concordance issues prior to discharge
- Improving patients' knowledge of prescribed medicines
- Promoting drug administration at the most appropriate time

Self Administration of Medicines

Patients may undertake routine self administration of their medicines where a specific local procedure approved by the Trust's Drug and Therapeutics Committee is in place.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Self administration of medicines	**Y**	**N**	**N/A**			
22.1 A local SOP approved by the Trust's Drug and Therapeutics Committee exists for patient self administration of medicines	☐	☐	☐			
22.2 Suitable patients are assessed for self administration by a designated member of staff who has undergone appropriate training	☐	☐	☐			
22.3 Patients consent to self administer their medicines after receiving education, information and details of their responsibilities whilst self medicating	☐	☐	☐			
22.4 Patients have immediate access to GTN sprays for the relief of angina pain and beta adreno-receptor agonist bronchodilator inhalers	☐	☐	☐			
22.5 Medicines other than immediate access medicines are stored securely to prevent misuse by others	☐	☐	☐			

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Self administration of medicines	**Y**	**N**	**N/A**			
22.6 A record of the dose and frequency of self administered medicine is made on the inpatient drug administration chart	☐	☐	☐			

STANDARD 23
Reuse of Patient's Own Medicines

Basic Standard Requirements

Patient's own medicines used during inpatient care are both safe and fit for purpose.

23.1 A local SOP exists for the reuse of patient's own medicines.

23.2 Patient's own medicines are securely stored in a locked medicine cupboard, individual patient locker or cabinet or locked in a medicines trolley.

23.3 Patient's own medicines are not used as part of inpatient treatment or as discharge medication unless they have been approved by a designated member of staff who has undergone appropriate training.

23.4 Patient's own medicines are only administered or supplied to the individual patient to whom they belong in accordance with a valid prescription.

Why it is important

Spoonful of Sugar advocated the reuse of patient's own drugs. Some of the advantages are:

- Identification of medicine related problems on admission
- reduced confusion for patient's on discharge in that they only have one supply of each prescribed medicine thus preventing accidental overdose
- medicines discontinued during inpatient hospital stay can be disposed of preventing patient's continuing to take a medication they are no longer prescribed.

Reuse of Patient's Own Medicines

Patient's own medicines used during inpatient care are both safe and fit for purpose.

Indicators	Audit Result			Comments Action to be taken	Target Date	Completed
Reuse of Patient's Own Medicines	**Y**	**N**	**N/A**			
23.1 A local SOP exists for the reuse of patient's own medicines	☐	☐	☐			
23.2 Patient's own medicines are securely stored in a locked medicine cupboard, individual patient locker or cabinet or locked in a medicines trolley	☐	☐	☐			
23.3 Patient's own medicines are not used as part of inpatient treatment or as discharge medication unless they have been approved by a designated member of staff who has undergone appropriate training	☐	☐	☐			
23.4 Patient's own medicines are only administered or supplied to the individual patient to whom they belong in accordance with a valid prescription	☐	☐	☐			

Appendix 1

Sample Procedures

- Determine the ability of the patient to communicate appropriately
- Choose a suitable environment that allows privacy and confidentiality for the patient and minimises the risk of interruption and distraction
- Establish the identity of the patient
- Introduce yourself
- Explain the purpose of the interview
- Respect the patient's right to decline an interview
- Adopt a physical position that allows the interview to take place comfortably and effectively
- In the event that the patient is not involved in the administration and management of their medicine the interview should be continued with the relevant person(s) e.g. relative or carer, after obtaining consent from the patient if possible.

The nature of the medicine history interview will depend on the individual patient. Questions must be relevant to the specific patient and tailored to obtain the necessary information. A standardised form should be used to record the information obtained. At the end of the interview this form should be signed and dated by the pharmacist/ trained accredited technician in drug history taking who has taken the medicine history and be filed in the patient's medical notes and/ or form part of the patient's pharmaceutical care plan. Open-ended questions should be used to seek information on the following:

- Prescription medicine use including all forms e.g. inhaled, topical, injections
- Non-prescription medicine use
- Self-initiated medicines and other types of health products used e.g. complementary alternative medicine
- Concordance with therapy including practical problems such as opening bottles
- Allergies/sensitivities (date and nature of reaction), previous adverse drug reactions and their manifestations
- Social drug use e.g. alcohol, tobacco
- Illicit drug use using professional judgement when appropriate
- Immunisation status when appropriate
- Community pharmacies visited
- Are the medicines supplied in a monitored dosage system
- Recent changes to medicine

Assess the patient's understanding and attitude to their therapy. Open-ended questions should be used to seek information on the following if necessary:

- The patient's perception of the purpose and effectiveness of the medicine(s)
- The dose and dose schedule used

- The duration of therapies used
- A general impression of the likelihood that the patient has used the medicine as prescribed
- The reason(s) for discontinuation or alteration of medicine(s)
- The storage of the medicine(s) e.g. fridge items
- Any problems with the medicine therapy

At the conclusion of the interview:

- Summarise the important information for the patient
- Ask the patient if they have any concerns or questions about their medicine and address these if appropriate
- Encourage the patient to provide further information that may be recalled after the interview. To facilitate this it may be necessary to provide a contact name and telephone number
- Explain when the next opportunity for discussion with a pharmacist will arise

Documentation and information that may assist the medicine history includes:

- Current hospital medicine administration record
- Current medicine record from general practitioner (printed or obtained via telephone from GP surgery). Check for both repeat and acute issues and for any recent information that may not yet have been updated on the GP computer records.
- Current medicine record from community pharmacist (printed or obtained via telephone from community pharmacist)
- Referral letter from general practitioner or other source e.g. nursing home, another hospital
- Previous hospital prescriptions e.g. discharge prescriptions, outpatient prescriptions
- Current admission details (medical and nursing notes)
- The patient's own medicine list
- The patients own drugs brought into hospital

At least two sources of information should be used

If a reliable medicine history cannot be obtained from the patient, relative or carer, community healthcare professionals should be contacted e.g. general practitioner, community pharmacist, nursing home staff. It should be documented on the medicine history form where the medicine history has been obtained.

After the interview the information obtained should be used to resolve any medicine-related problems. The medicine history should be compared with the current hospital medicine administration record and any discrepancies resolved. The prescriber should be contacted if appropriate and a medication incident form completed. Patients should be educated about alterations to their medicines where necessary.

MEDICINE HISTORY INTERVIEW TOOL

Patient name: DOB: Address: Hosp. No. (Attach addressograph)	GP name: Address: Community Pharmacist: Address:

Patient able to communicate appropriately: Y/N
Patient manages & administers own medicines at home: Y/N
If NO who manages and administers patients medicines at home? ……
Monitored dose system: Y/N

Allergies/ Previous adverse reactions Nature of reaction(s)	Recent vaccination history

Does the patient have a known history of alcohol abuse/ misuse? Y/N
If YES give details:……

Does the patient have a known history of drug abuse/ misuse? Y/N
If YES give details:……
Does patient smoke? Y/N

Drugs on Admission:

Drugs prescribed by doctor:				
Drug name & form	Strength, dose, frequency, formulation	Information source[1]	Patient concordant and medicines stored correctly	Supply at home[2]
			Y/N	
			Y/N	
			Y/N	
			Y/N	

(Continued overleaf)

Any additional information:

Key: 1. **GP** – General Practitioner **P** – Patient **C** – Relative/ Carer **CP** – Community Pharmacist **NH** – Nursing Home **O** – Other (please specify) 2. **H** – Home **W** – Ward **D/C** – Discontinued medicine

Drugs on Admission:

Drugs prescribed by doctor continued:				
Drug name & form	Strength, dose, frequency	Information source$_1$	Patient concordant and medicines stored correctly	Supply at home$_2$
			Y/N	
			Y/N	
			Y/N	
			Y/N	
			Y/N	
			Y/N	
			Y/N	

Non prescription medicine/ self-initiated medicine (including homeopathic & herbal medicine)				
			Y/N	
			Y/N	
			Y/N	
			Y/N	
			Y/N	

Drug related admission: Y/N
If YES give details:……
……

Follow up required:

Pharmacist's/ Technician Name:…….(Please print)

Signature: …… Date:……

Procedure for Prescription Monitoring and Review.

The patient's prescription should be reviewed in conjunction with the patient, the administration record, the patient's notes, the medicine history and relevant laboratory test results. All current and recently prescribed drugs should be reviewed. This may include routine medicine, variable dose drugs, intravenous therapy, single dose drugs, anaesthetic records, epidural medicine or other analgesics. A patient may have several different prescription charts at any one time e.g. multiple prescription charts, supplementary sheets such as anticoagulant chart, fluid balance chart and all of these must be reviewed. Recent consultations, clinical tests and procedure results, observation results, treatment plans, daily progress and information elicited from the patient should be taken into account when determining the appropriateness of prescribed drugs. Prescription monitoring and review should include:

- Checking that the prescription is written according to legal and local requirements. The patient's identification information must be clear and complete. The patient's allergy and sensitivity status must be complete and correct. It must be updated if the patient develops a new allergy or sensitivity during admission
- Ensuring that the prescription is complete and unambiguous, appropriate terminology is used and that drug names and units are not abbreviated. The prescription chart should be annotated for clarification if required
- A new prescription is written when current treatment is altered
- Detecting medicines prescribed to which the patient is allergic, hypersensitive or intolerant.
- Ensuring the prescription is appropriate with respect to:
    - The patient's previous medicine
    - Patient specific considerations e.g. pregnancy, nil by mouth
    - Drug dosage and dosage schedule with respect to age, renal function, liver function
    - Route, dosage form and method of administration
- Checking for medicine duplication
- Checking for actual or potential medicine interactions or incompatibilities
- Ensuring that administration times are appropriate e.g. with respect to food, other medicines, procedures
- Checking the administration records to ensure that medicine is administered as prescribed
- Ensuring that the prescription clearly indicates the times of drug administration. Prescriptions for drugs that are not prescribed on a 24hour basis must indicate the frequency and if appropriate the day of administration
- Ensuring that the duration of therapy is appropriate e.g. antibiotics, analgesics
- Ensuring that the prescription is cancelled when drug therapy is intended to cease and that this is signed and dated

- If appropriate, follow up any non-formulary drug orders and recommend a formulary equivalent if required
- Ensuring that appropriate therapy monitoring is implemented
- Ensuring that all medicine is prescribed according to the patient's medical condition e.g. if a patient is prescribed an opiate has a laxative been prescribed
- Reviewing medicines for cost effectiveness
- Endorsing prescriptions with clarifying information e.g. dilution/ administration rates for intravenous infusions, times of administration, generic drug names and allergies/ sensitivities as appropriate
- Evaluate prescription(s) as a whole e.g. do as required medicines have an implication on regular medicines
- Evaluating the patients response to therapy
- Identifying medicine related problems. These include:
  - Untreated indications – the patient has a medical problem that requires medicine therapy but is not receiving a medicine for that indication
  - Missing medicines e.g. patient prescribed a rate controlling medicine for atrial fibrillation but not prescribed an anticoagulant or antiplatelet
  - Inappropriate drug selection – the patient has a medicine indication but is taking the wrong medicine. The patient's treatment should be current best practice
  - Subtherapeutic dosage – the patient has a medical problem treated with too little of the correct medicine
  - Failure to receive medicine – the patient has a medical problem as the result of not receiving a medicine
  - Overdosage – the patient has a medical problem being treated with too much of the correct medicine
  - Actual or potential adverse drug reactions or effects
  - Drug interactions – the patient has a medical problem that is the result of a drug-drug, drug-food or drug-test interaction
  - Medicine use with no medical indication
  - Lack of understanding of the medicine therapy by the patient
  - Failure of the patient to adhere to the medicine regimen

Consultation with the prescriber to discuss and agree any suggested and necessary changes must be undertaken as soon as practical. Prescription charts should be altered or rewritten as soon as possible. Consultation and intervention in patient care should be documented in the patient's medical notes and pharmacy records where appropriate.

If a problem requires urgent resolution and the prescriber is not available the prescriber or a member of the medical team should be contacted by the pharmacist immediately e.g. by bleep or phone and the problem with suggested solutions explained.

The pharmacist must follow up on consultations to ensure that problems are resolved.

Procedure for the prevention, detection, assessment and management of adverse drug reactions

In preventing and detecting ADRs pharmacist should:

- Identify and monitor patients most susceptible to ADRs. For example
  - Older patients
  - Paediatric patients
  - Those with multiple diseases
  - Patients treated with a large number of drugs
  - Patients treated with medicines known to have a high incidence of adverse effects. Avoid use of these medicines where an equally effective and safer alternative exists or ensure they are used appropriately to minimise the risk.
  - Patients treated with medicines associated with serious adverse effects
  - Patients treated with medicines with a narrow therapeutic index
  - Patient treated with medicines with potential for multiple interactions
  - Patients with compromised drug handling ability e.g. altered absorption, distribution, metabolism or excretion
  - Patients with compromised ability to take or use medicines e.g. dysphagic patients

- Check that patients are not exposed to unnecessary risk e.g. drug use with no indication, disregard for stated warnings, special precautions, contra-indications
- Check that there are no drug interactions with prescribed medicine, over the counter medicine, food or drink
- Ensure patients receive cautionary and advisory labels and education on the correct use, storage and disposal of their medicine at discharge
- Educate patients to recognise ADRs and what action to take should they experience an ADR
- Encourage patients to report ADRs
- Encourage medical and nursing staff to report ADRs
- Identify patients who have had previous ADRs, intolerance or hypersensitivity to a particular drug or class of drugs
- Monitor patients on black triangle or unlicensed medicines
- Detect ADRS through routine drug therapy monitoring e.g. extra-pyramidal symptoms caused by metoclopramide
- Monitor patients for delayed ADRs with both established and newer medicines

When an ADR is suspected all possible sources of information should be considered. These include:

- Patient details
  - Age, sex, ethnic background, weight and height
  - Diagnosis and other relevant co-morbidities prior to reaction
  - Previous exposure to suspected medicine(s) or related medicine(s)
- Medicine details, including non-prescription drugs, alternative treatments and recently ceased medicines
  - Name, dose, route of administration
  - Manufacturer, batch number
  - Time and date commenced
  - Date and time discontinued (if applicable)
  - Indication for use
- Adverse drug reaction details
  - Description of reaction
  - Time, onset and duration of reaction
  - Complications and outcomes
  - Treatment of reaction and outcome of treatment
  - Relevant investigation results
  - Post mortem result

Correlation of a suspected medicine with an adverse drug reaction may be:

- Certain. Whereby:
  - There is a clear association between medicine administration and the reaction
  - The results of investigations confirm that there is a relationship between the administration of the medicine and the reaction
  - The reaction recurs when the patient is re-exposed to the medicine
  - The reaction is commonly known to occur with the suspected medicine
- Probable. Whereby:
  - The reaction is known to occur with the suspected medicine and there Is a possible association between the reaction and medicine administration
  - The reaction resolves or improves upon stopping the suspected medicine and other medicine remains unchanged
- Possible. Whereby:
  - An alternative explanation for the reaction exists
  - More than one medicine is suspected
  - Recovery occurs after stopping more than one medicine
  - The association of the reaction with the medicine administration is unclear
- Doubtful. Whereby:
  - Another cause is more likely to have accounted for the reaction

When a reaction has occurred the decision whether to continue treatment with the suspected medicine depends on the likelihood of the suspected medicine causing the reaction and the clinical significance of the reaction.

Pharmacists may make recommendations on treatment options or recommend alternative treatment.

When managing an ADR the following needs to be considered:

- The condition of the patient
- The risks and benefits associated with continuing therapy with a medicine known to have caused an adverse drug reaction
- The efficacy and safety of alternative treatments
- Prophylactic use of other drugs to prevent future adverse reactions

A suspected ADR should be appropriately documented by the pharmacist. This includes:

- Documentation of the date and nature of the reaction in the patient's medical notes
- Documentation in allergy/ sensitivity section of patients prescription chart if appropriate
- Notification of Medical staff, including GP and original prescriber
- Medication Incident form
- Reporting all adverse reactions for black triangle drugs and any serious adverse reactions for established drugs to the Committee on Safety of Medicines (CSM) using the Suspected Adverse Drug Reaction form (yellow card system)
- The medical staff should inform the patient and/ or their carer of the ADR.

Procedure for the Prevention, Assessment and Management of Drug Interactions.

Pharmacists should regularly monitor for potential and existing drug interactions. This is important during:

- Medicine history interview and medicines reconciliation.
- Prescription monitoring and review.
- Commencement of a new medicine.
- Cessation of a medicine.
- Therapeutic drug monitoring

Pharmacists need to maintain an up-to-date knowledge of common and clinically significant drug interactions. They also need to be able to access up-to-date medicines information sources dealing with drug interactions.

When managing a drug interaction the following factors must be considered:

- Details of the interacting agents e.g. date of commencement.
- Therapy monitoring details e.g. laboratory results.
- Possible other causes e.g. renal impairment.

Recommendations to manage an interaction may include:

- Switching to an alternative agent.
- Monitoring the patient without altering therapy.
- Dose adjustment of the interacting agent(s).
- Altering the dosing schedule.
- Changing the route of administration.
- Stopping one or both of the interacting medicines.

All suspected drug interactions with adverse sequelae should be discussed with medical staff and documented appropriately. The patient should be notified to prevent future recurrence of the same interaction.

Patients or their carers should be counselled about the current use of agents that may adversely interact with medicines the patient has already been prescribed.

Procedure for Therapeutic Drug Monitoring

Therapeutic Drug Monitoring (TDM) is used by pharmacists to optimise therapy for medicines where there is a known, close relationship between serum concentration, therapeutic affect and adverse effect.

TDM may be indicated in the following patients:

- Patients with renal impairment
- Patients with hepatic impairment
- Patients undergoing dialysis or haemofiltration
- Patients with uncompensated cardiac dysfunction e.g. oedema associated with heart failure
- Patients with severe airways disease
- Patients with diabetes
- Obstetric patients
- Older patients
- Paediatric patients
- Neonatal patients
- Obese/ undernourished patients
- Burns patients
- Cystic fibrosis patients
- Surgical patients e.g. management of patients on lithium going for surgery
- Patients showing signs of toxicity e.g. digoxin
- Patients unresponsive to therapy to check for therapeutic levels e.g. theophylline
- Overdose patients
- Patients treated with a drug with a narrow therapeutic index
- Patients treated with a drug with a high incidence of adverse effects
- Patients treated with a drug associated with clinically significant interactions

Accurate sampling is necessary to relate the measured serum concentration to therapeutic effect. Time of sampling, time of last dose and duration of current treatment must be recorded.

When interpreting results the following should be considered:

- Drug/ dose/ formulation/ schedule
- Method of administration
- Indication for treatment
- Indication for TDM
- Target serum concentration levels
- Duration of current treatment

- Time of last dose
- Time of sampling
- Prior drug monitoring
- Relevant laboratory results
- Concordance
- Administration
- Clinical status of patient and recent progress
- Renal and hepatic function, cardiac status, age, weight etc
- Fluid balance
- Pharmacokinetic and pharmacodynamic properties of drug and patient factors that may influence these
- Concurrent medicines
- Concurrent disease
- Environmental factors e.g. smoking

Results of TDM must be reported in a timely manner and recommended action and future monitoring requirements indicated.

When appropriate, recommendations should be documented in the patient's medical notes and pharmacy records.

Procedure for Multidisciplinary Working.

Before participating in a ward round the pharmacist must prepare by monitoring and reviewing all patients' prescriptions in conjunction with medical notes and relevant laboratory test results if possible prior to the ward round. This allows the pharmacist to:

- Gain knowledge of the medicine and disease states likely to be encountered on the ward round.
- Consider the aspects of the patient's medicine therapy likely to be discussed.
- Organise questions to ask to address issues the Clinical Pharmacist wants to raise
- Prepare the patient pharmaceutical care issues they wish to raise with medical staff.

Appropriate communication skills must be used when discussing medicine related problems with other healthcare professionals, the patient and their family.

The ward round provides the opportunity to:

- Contribute information regarding the patient's medicine therapy e.g. suggestions for monitoring.
- Investigate unusual medicine orders or doses
- Assimilate additional information about the patient, which may be relevant to their medicine therapy e.g. social circumstances
- Detect ADRs and interactions.
- Participate in discharge planning.

At the end of the ward round or clinical meeting the pharmacist follows up any outstanding issues including:

- Responding to any enquiries generated.
- Communicating changes in medicine therapy to relevant personnel and patient.
- Completing necessary documentation e.g. discharge information, medication incident forms
- Considering the impact of changes to the pharmaceutical care plan and adapting the care plan as required.
- Discussing changes to therapy with the patient and other healthcare professionals if appropriate.
- Organise timely writing of discharge prescription

Procedure for the provision of Medicines Information Advice by Pharmacists

The exact reason for the request and all relevant patient information surrounding the enquiry should be established to ensure that the answer provided is appropriate e.g. the diagnosis, test results, goal of treatment, age, weight. The urgency of the request should be established.

The request may be dealt with at the time of the enquiry if the pharmacist is confident that the information is accurate and sufficient.

If the enquiry requires research

- Systematically retrieve evidence-based information using the resources and expertise available including medicine information pharmacists or other specialists in the field
- If further consultation is required discuss patient specific details with a medicines information pharmacist or other specialists in the field
- Evaluate and interpret the information retrieved
- Formulate a response which meets the specific needs of the enquirer
- Communicate the response in a written or verbal form as appropriate
- Document the request, information sources and response
- If appropriate follow up the response to determine if the response supplied contributed to patient care or if further information is required
- Advise the enquirer if further relevant information becomes available
- Document in patient notes if appropriate

Medicines information enquiries should be recorded and filed according to local policy in an easily retrievable manner to allow access by other users and to prevent duplication.

Procedure for Discharge

The pharmacist ensures that all medicines prescribed at discharge are clinically accurate and appropriate. A transcription check is carried out between the prescription chart and the discharge prescription to ensure that there are no errors or omissions.

Whenever possible discharge medicines should be dispensed as early as possible prior to discharge to prevents hospital discharge being delayed. This may involve one stop dispensing and the reuse of patients' own medicines according to local policy.

The patient is dispensed an agreed labelled quantity of their medicines according to local policy.

The patient is educated about their medicines and is given written, accurate up-to date information about their medicines.

The pharmacist may liaise with other healthcare professionals to ensure arrangements are in place for continuity of care.

The healthcare professionals the pharmacist may liaise with include:

- General Practitioner
- Community Pharmacist
- District Nurse
- Practice Nurse
- Community Psychiatric Nurse
- Nursing/residential home
- Interface Pharmacist
- Intermediate care teams
- Out of hours services
- Specialist community nurses i.e. tissue viability nurse

.Accurate and up-to date information of a patient's medicines at discharge is safely and effectively communicated to primary care healthcare professionals. The information communicated should include :

- Current medicines.
- Changes to medicine and the reason for the change.
- Information needed to continue supply of medicine within primary care.
- Monitoring requirements

Communication with primary care professionals may be

- Verbal (by telephone)
- Written
- Electronic
- Fax
- email

Patient's confidentiality and personal wishes must be respected. The name and contact number of the hospital pharmacist should be made available to the primary care healthcare professional.

All patients will benefit from liaison between primary and secondary care. Where resources do not permit this, patients who would benefit the most should be identified. These patients include:

- The elderly.
- Patients with psychiatric illnesses.
- Patients on complex medicine treatments.
- Patients taking 4 or more regular medicines
- Patients taking a high risk drug
  - Angiotensin-converting enzyme inhibitors/ Angiotensin-11 receptor antagonists
  - Antidepressants (including lithium)
  - Beta blockers
  - Clopidogrel
  - Digoxin
  - Diuretics
  - Insulin/ oral hypoglycaemics
  - Methotrexate
  - NSAIDs
  - Opiates
  - Prednisolone
  - Anticoagulants/ Warfarin,
  - Anti-infectives
  - Antiparkinson drugs
  - Antiepileptics
  - Clozapine
  - Potassium
  - Any medicine deemed a critical medicines where timeliness of administration is crucial

  This is not an exhaustive list
- Patients who have been readmitted to hospital within 6 months of previous discharge
- Patients unaware/unsure of their medicine history
- Patients discharged on 'red/amber' drugs e.g. IV antibiotics to be administered in primary care.

If a patient is discharged outside of pharmacy opening hours the discharge is followed up by a pharmacist within 24 hours of discharge. The discharge prescription should be checked for clinically accuracy, appropriateness and to ensure that there are no errors or omissions. Any discrepancies should be resolved, the patient, GP and community pharmacist contacted to correct any erroneous information.

Procedure for Patient Medicine Education

Medicine education may be necessary at different times:

- During an outpatient clinic visit
- On admission, beginning with the medicine history interview
- Throughout an inpatient stay
- Immediately prior to discharge or at discharge

Patient understanding of their medicine and retention of information is optimised if education occurs during the patient's hospital admission as well as at discharge. Education should be reinforced at every available opportunity. If it is apparent that the patient will not be able to self-medicate on discharge the education and education needs of the carer must be met.

Choose a suitable environment that allows privacy and confidentiality for the patient and minimises the risk of interruption and distraction. The mode of presentation will depend on the patient's needs, the person being counselled and the timing of education. Education can incorporate the use of various techniques:

- One to one discussions
- Group teaching
- Use of information resources e.g. consumer product information
- Audiovisual and educational displays

The primary steps in education are to:

- Identify the patient
- Introduce yourself
- Explain the purpose and expected length of the session
- Obtain the patient's agreement to participate
- Adopt a suitable physical position to enable education to take place comfortably and effectively
- Assess the patient's knowledge about their health problems and medicines and their physical and mental capability to use the medicines appropriately. Assess the patient's literacy and numeracy skills.
- Ask the patient open ended questions about their perception of the purpose of each medicine, what the patient expects and ask the patient to describe how he or she will use the medicine.
- If there are multiple medicines, organise the drugs in a logical sequence and provide a written or printed medicine list as a concordance aid. This should be signed and dated by the pharmacist.
- Utilise other education aids when appropriate e.g. large print labels, plain closures.

Using effective communication methods counsel the patient and/or carer regarding relevant aspects of their drug regimen. Tailor the information to the needs of the patient. Assess the ability of the patient to understand the information to be imparted. Employ the expertise of an interpreter if necessary. Ensure a carer fully understands if the patient does not. Consider modified education strategies for patients with cognitive or perceptual problems or for those treated with medicine that may impair the ability to remember.

Information that should be discussed during an education session includes:

- The generic and trade name of the drug, physical description and strength
- The intended purpose and expected action of treatment
- Information on how and when to take the medicine
- Any special directions or precautions about taking the drug
- Common side effects that may be encountered, ways in which to minimise them and action that is required if such side effects occur
- Details of medicine ceased and its relationship to new medicine
- Details of medicine altered in any way
- Any techniques for self-monitoring of therapy
- Appropriate storage requirements
- Relevant drug-drug (including non-prescription), drug-food, drug-disease, drug-alcohol and drug-test/procedure interactions
- Demonstrate the assembly and use of administration devices e.g. inhalers and spacer devices
- The number of days treatment that is supplied, the duration of treatment that will be required and the means to obtain further supplies taking into account unlicensed medicines , Red/Amber medicines etc
- The action to be taken in the event of a missed dose
- Consumer product information as appropriate
- Proper disposal of contaminated or discontinuation medicines and used administration devices
- A printed or written signed and dated medicine list as required
- Details of medicines dispensed on discharge

During the education session the pharmacist should determine whether the patient is willing to use a medicine and whether they intend to do so.

At the end of the education session:

- Summarise the significant information for the patient
- Assess the patient's understanding e.g. ask the patient to repeat the information given
- Ensure the patient has all the relevant information
- Supply medicine aids as necessary
- Ask the patient if they have any questions or if there is any information they did not understand

- Answer the patient's questions and clarify any information they did not understand
- Encourage the patient to contact the hospital or community pharmacist if there are any difficulties regarding their medicine. Provide a contact name and telephone number
- If the patient is in a repeat dispensing scheme the pharmacist shall inform the community pharmacist and GP of changes to the patient's medication
- Document in the patient's medical, multidisciplinary notes or pharmaceutical care plan that education has occurred and that a suitable level of understanding has been achieved by the patient or carer to facilitate concordance

Based on the assessment of the patient's understanding determine if any follow-up is required. This may include:

- Further education sessions e.g. referral to their community pharmacist for further education
- Liaison with other healthcare professionals may be necessary to supervise the administration of medicine
- Communication of relevant strategies or perceived problems to the necessary healthcare workers either verbally or in writing

Appendix 2

Northern Ireland Timings

The time to complete specific clinical tasks was collected across the five trusts in Northern Ireland and an average time for each task calculated.

General Medicine

Pharmacist time spent on a standard medical patient

Medicines Reconciliation on Admission	28mins
Inpatient Monitoring (based on LOS* 6.54days)	5.23 x 6.54 = 34mins
Medicines Reconciliation at Discharge + Prep	35mins
Discharge Counselling	5mins
Total	**102mins per patient**

Technician time spent on a standard medical patient

Drug History on Admission	5mins
Stocking OSD drawer on Admission	10mins
Inpatient Kardex Review (based on LOS* 6.54days)	5.186 x 6.54 = 34mins
Discharge Prep and check	34mins
Total	**83mins per patient**

Surgical wards (including Trauma & Orthopaedics)

Pharmacist time spent on a standard surgical patient

Medicines Reconciliation on Admission	25.5mins
Inpatient Monitoring (based on LOS* 4.72days)	5.23 x 4.72 = 25mins
Medicines Reconciliation at Discharge + Prep	24mins
Discharge Counselling	5mins
Total	**79.5mins per patient**

Technician time spent on a standard surgical patient

Drug History on Admission	5mins
Stocking OSD drawer on Admission	10mins
Inpatient Kardex Review (based on LOS* 4.72days)	5.18 x 4.72 = 24.5mins
Discharge Prep and check	24mins
Total	**63.5mins per patient**

Gynae wards

Pharmacist time spent on a standard gynae patient

Medicines Reconciliation on Admission	25.5mins
Inpatient Monitoring (based on LOS* 2.4days)	5.23 x 2.4 = 12.5mins
Medicines Reconciliation at Discharge + Prep	24mins
Discharge Counselling	5mins
Total	**67mins per patient**

Technician time spent on a standard gynae patient

Drug History on Admission	5mins
Stocking OSD drawer on Admission	10mins
Inpatient Kardex Review (based on LOS* 2.4days)	5.18 x 2.4 = 12mins
Discharge Prep and check	24mins
Total	**51mins per patient**

Paediatrics

Pharmacist time spent on a standard paediatric patient

Medicines Reconciliation on Admission	4mins
Inpatient Monitoring (based on LOS* 3.54days)	6.16 x 3.54 = 21.8mins
Medicines Reconciliation at Discharge + Prep	6.6mins
Discharge Counselling	3mins
Total	**36mins per patient**

Technician time spent on a standard paediatric patient

Dispensing of discharge	14mins
Total	**14mins per patient**

Acute Elderly Care

Pharmacist time spent on a standard acute elderly care patient

Medicines Reconciliation on Admission	28mins
Inpatient Monitoring (based on LOS* 17.72days)	5.23 x 17.72 = 92mins
Medicines Reconciliation at Discharge + Prep	35mins
Discharge Counselling	5mins
Total	**160mins per patient**

Technician time spent on a standard acute elderly care patient

Drug History on Admission	5mins
Stocking OSD drawer on Admission	10mins
Inpatient Kardex Review (based on LOS* 17.72days)	5.186 x 17.72 = 92mins
Discharge Prep and check	34mins
Total	**141mins per patient**

Acute Psychiatry

Pharmacist time spent on a standard mental health patient

Medicines Reconciliation on Admission	18mins
Inpatient Monitoring (based on LOS* 27days)	3.425 x 27= 92mins
Care plan meeting (based on LOS* 27 days/ 4 weeks)	12.5 x 4 =50mins
Medicines Reconciliation at Discharge + Prep	16mins
Discharge Counselling	5mins
Total	**181mins per patient**

Technician time spent on a standard mental health patient

Inpatient Monitoring (based on LOS* 27days)	2.625 x 27 = 71mins
Dispensing of discharge	13mins
Total	**84mins per patient**

*LOS = average length of stay for all Trusts in Northern Ireland for financial year 2011/12

The figures do not take into account other tasks that are performed on the ward e.g.
3 monthly Controlled Drug Checks
Medicine Information requests
Therapeutic Drug Monitoring
Antibiotic Audits
Follow up of clinical queries with medical staff
Addressing supply issues
Anticoagulant counselling
University student accompanied ward visits
Developing guidelines

Glossary

Clinical Pharmacy	A discipline concerned with the application of pharmaceutical expertise to help maximise drug efficacy and minimise drug toxicity in individual patients.
Concordance	The patient and the prescriber agree therapeutic decisions that incorporate their respective views, including patient support in medicine taking as well as prescribing communication.
GP	General Practitioner
Medicines	Drug and dressing treatments that may be taken orally, by injection, topically, inhalation, rectally.
Medicine history	Details of a patient's current and recently discontinued medicines, along with details of any drug allergies or sensitivities.
Medicines Management in hospitals	The way that medicines are selected, procured, delivered, prescribed, dispensed, administered and reviewed to optimise the contribution that medicines make to producing informed and desired outcomes of patient care.
Medicines Reconciliation	The NPSA definition of medicines reconciliation: • collecting information on medication history (prior to admission) using the most recent and accurate sources of information to create a full and current list of medicines (for example, GP repeat prescribing record supplemented by information from the patient and/or carer), and • checking or verifying this list against the current prescription chart in the hospital, ensuring any discrepancies are accounted for and actioned appropriately, and • communicating through appropriate documentation, any changes, omissions and discrepancies.
Pharmaceutical Care Plan	One or more pharmaceutical care issues for an individual patient, together with the desired outcome(s) and the action(s) planned to achieve the outcome(s).
Pharmaceutical Care	The pharmaceutical contribution to patient care.

Yellow Card Scheme	The scheme is run by the Medicines and Healthcare products Regulatory Agency (MHRA) and the Commission on Human Medicines (CHM) to collect information from anybody, healthcare professionals and the general public, on suspected side effects or adverse drug reactions (ADRs) from a medicine.

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