



School of Pharmacy,
University of London

Postgraduate Diploma
in
General Pharmacy Practice

MEDICINES INFORMATION CURRICULUM GUIDE 2011/12

In association with the Joint Programmes Board:

East and South East England Specialist Pharmacy Services
King's College
Kingston University
Medway School of Pharmacy
School of Pharmacy, University of London
University of Brighton
University of East Anglia
University of Portsmouth
University of Reading

This training pack is based on the requirements of the UKMI E&T standards, which specify the training that a general level pharmacist should undertake in MI. The UKMi Competency Framework and UKMi Workbook have been used to select competencies for assessment.

Please note, for those Training Centres that don't have a Medicines Information department practitioners may work through the learning outcomes using clinical or on call enquiries as evidence.

Introduction

This curriculum guide is intended to direct the learner towards the relevant skills and knowledge required of a general pharmacy practitioner providing Medicines Information. The learning objectives listed in this document represent the competencies to be met during the first 18 months of the programme i.e. to satisfy the global aim and objectives described for the Postgraduate Certificate in General Pharmacy Practice (PG Cert GPP).

It is expected that practitioners will work under the direction of relevant national and local policies, guidelines and Standard Operating Procedures (SOPs) at all times.

Using the Guide:

The Medicines Information curriculum guide should be used in conjunction with the three other curriculum guides to support learning in pharmacy practice. There are a number of areas of overlap between the curriculum guides which have been signposted to help the learner to achieve learning outcomes across the four core service areas where possible. Practitioners should aim to be working through the four guides simultaneously although one may be used more prominently in specific rotations e.g. MI or technical services.

The four curriculum guides should be brought to the Record of In-service Training Assessment (RITA) meetings that occur at regular intervals throughout the programme. The Guides will be used to review practitioner progress and to assist in planning the focus of learning for the next period of the programme.

In order to facilitate this process, practitioners are asked to place a tick against the learning objectives as and when they feel they have been achieved. Practitioners are reminded that all learning outcomes are subject to assessment either in the workplace (mini-CEX, CbD, MRCP, DOPS) or at their HEI portfolio review, MCQs or OSCEs.

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SECTION 1a - INTRODUCTION TO MI ROTATION

- The MI training rotation assumes that you have previously completed MI training as a hospital pre-registration pharmacist*. This means that you would have already completed sections A-D and tutorials 1-7 in the UKMi workbook, with the associated MiCAL sections as appropriate.*
*(if either is not the case, then please let your MI Educational Facilitator know so that the training programme can be tailored to your needs.)
- This training pack refers to the UKMi workbook and MiCAL package. You will need to consult/use these training resources as appropriate throughout the rotation.
- This pack is divided into 6 main sections:

Section 1 – Introduction to MI & Rotation/Orientation to the MI Department

Section 2 - Aim and objectives

- These are essentially the competencies you will be expected to have achieved by the end of your rotation.

Section 3 - Training and Learning Activities

- These are the **training and learning activities** that you will undertake to allow you to achieve the **aims and objectives, and hence the competencies**
- **Please complete the various sections during your rotation (do not leave it to the end of your rotation). This section will, in itself, form part of the evidence for your assessment.**

Section 4 – Assessment forms (MI & GLF competencies)

- Assessment will take place mid way and at the end of your rotation.
- This is a competency based assessment, and you will be expected to **provide and/or discuss** evidence to support the competencies as applicable with an MI Educational Facilitator so that he/she can assess whether you have attained the competency or not.
You will be expected to achieve all the MI competencies listed by the end of your rotation. If you do not you may need to undergo further training - this will be under the discretion of the MI Educational Facilitator/MI manager. Hopefully this will not happen, as you will be working to achieve these competencies by completing the learning/training activities throughout the rotation. Therefore any weaknesses can be identified and addressed at an earlier stage and not at the end of your rotation. You may need to study in your own time in order complete tutorials and workbook activities.
- Methods of assessment used throughout the rotation will include regular review & feedback of your enquiries by MI Educational Facilitator, direct observation, discussion etc.

Section 5 – Feedback/Evaluation forms

Please complete these at the end of the rotation to allow us to continually review the training that is provided.

SECTION 1b - ORIENTATION TO THE MI DEPARTMENT

NOTE FOR MI MANAGERS: Please use this section to include details relevant to your centre/hospital.

<p style="text-align: center;">On your first day, an MI Educational Facilitator will discuss the following with you:</p>	<p style="text-align: center;">✓ WHEN COMPLETE</p>
<p>1. The training programme/pack, to include:</p> <ul style="list-style-type: none"> - Aims & Objectives - Learning and Training Activities required to be undertaken during the rotation & to complete the documentation throughout the rotation - Assessment and evidence required - Ensure that you have the UKMi Workbook and have used MiCAL - Ensure that you have already completed sections A-D and tutorials 1-7 in the UKMi workbook, with the associated MiCAL sections as appropriate for the hospital pre-registration year - Ensure that you have the learning outcomes for Workbook Tutorials 1-7 	
<p>2. Introduce you to staff</p>	
<p>3. The layout of the MI dept:</p> <ul style="list-style-type: none"> - Location of resources - Use of phones, location and use of printers/photocopier/fax 	
<p>4. Role of the centre and enquirer types:</p> <ul style="list-style-type: none"> - Regional centre - the name of your regional MI centre and their role - Local centre – the role of the centre wrt the hospital -Types of enquirers 	
<p>5. The enquiry answering process:</p> <ul style="list-style-type: none"> - MI Enquiry sheets – (location, logging, filing) OR Midatabank - Storage of and access to previous enquiries - Go through “Guidelines for ensuring quality in enquiry answering” – attached or available from UKMi Workbook (C14-C15) - Go through MI SOPs 	
<p>6. Ward responsibilities and timings</p>	
<p>7. TOIL/Annual/Study Leave</p>	
<p>8. Any other responsibilities</p>	

Introduction / Purpose

For quality assurance purposes enquiries are assessed under the following categories:

1. Documentation
2. Analysis
3. Coverage
4. Answer

Each enquiry is also assigned a level of complexity (see Section 5).

Each section then receives a score out of 5 based on what is or isn't lacking.

A final score out of 20 is then given for each enquiry.

The following should be considered for ALL enquiries:

1 Documentation

1.1 Full name of enquirer (even if you know who they are!)

1.2 Contact details of enquirer (contact number & location).
N.B. full postal address may be needed for enquiries to enable follow-up e.g. for survey purposes.

1.3 Agree a mutually realistic timescale with the enquirer based on clinical urgency and current workload. If an answer is needed by a particular deadline, specify the reason why.

1.4 Clear explanation of the question.

1.5 Annotate enquiry at various stages with the date and signature.

1.6 Resources:

State clearly names of all resources used.

- Books/Journals: specify edition number/ date & page numbers.
- Databases: specify dates searched/accessed/state search terms used.
- People: include full name and title of people you speak to where possible e.g. company Medical Information Departments/ specialist doctors/ pharmacists.
- Other electronic resources e.g. websites: specify name and/or full address of website(s) used/date accessed/search terms used. NB. Full address is not necessary for those websites used regularly or those listed in the minimum resources list (e.g. EMC etc.).

1.7 Be specific, if nothing found say so e.g. nil found.

1.8 Summary of answer given (include any subsequent points discussed).

2 Analysis

2.1 Ensure that it is clear from the enquiry form that you have fully understood the question.

2.2 Try to record all relevant background information e.g. age, other medicines, doses, and relevant medical history.

3 Coverage

3.1 Have you checked all the key resources required for that level of enquiry?
Do not rely on one source of information (especially for Level 2 & 3 enquiries)

3.2 Have you worked through the sources in a logical systematic fashion?

3.3 Use a Standard Search Pattern if available (see Clinical Governance section of UKMi website).

4 Answer

4.1 Have you evaluated the information?

4.2 Have you answered the question & provided practical advice appropriate to the needs of the enquirer?

4.3 Is the level of detail sufficient?

4.4 Is the method of communication appropriate? e.g. phone call and/or letter summarising your findings.

4.5 Does anyone else need to know?

5 Enquiry level (complexity)

5.1 Use the checklist to make sure you assign an appropriate level of complexity to your enquiry (try to base this on the enquiry itself, rather than the experience of the person answering it.)

5.2 Enquiry Level Checklist

Level 1: Data. Information only, from one or two sources.

Level 2: Searches. Multiple database and/or textbook searches. Little or no interpretation. Minimal advice given

Level 3: Interpretation. Primary literature retrieval required. Interpretation & advice given. Specialist personal knowledge. Analysis/ evaluation of data. Most written answers.

SECTION 2 – AIM & OBJECTIVES OF THE MI ROTATION

Aim

To provide training in the core skills required in medicines information in order that you become competent in providing medicines information at a general level.

Objectives

To attain the following competencies by the end of the MI rotation:

COMPETENCY	ACHIEVING THE COMPETENCY – YOU NEED TO DEMONSTRATE THAT YOU: (SEE ASSESSMENT SECTION FOR FURTHER INFORMATION)
SECTION A – DELIVERING THE MI SERVICE	
<i>Delivers own work to time</i>	Deliver work within agreed deadlines Prioritise own work and adjust priorities in response to changing circumstances
<i>Ensures quality in own work</i>	Seek quality review of own work from experienced colleagues, act upon advice given
<i>Works accurately with information management systems</i>	Make effective use of IT (eg: databases)
SECTION B – WORKING WITH PEOPLE	
<i>Is a committed member of the MI team</i>	Accept responsibility for own work (and for those in training where appropriate) Know when to ask for help
<i>Develops relationships with enquirers, inspires confidence in the service</i>	Are polite and helpful Use questioning effectively to establish and understand the query Understand the needs and priorities of enquirers, explain when the query will be answered
SECTION C – WORKING WITH INFORMATION	
<i>Designs and executes basic search strategies</i>	Plan and record a search strategy appropriate to the task Know how (and when) to use all information sources on the UKMIPG minimum resource list
<i>Evaluates and applies information at a basic level</i>	Follow a logical approach to problem definition and solving Identify relevant information and disregard irrelevant information in a systematic way Summarise evaluated information to give appropriate factual information and/or professional opinion.
<i>Communicates information effectively and articulately</i>	Communicate effectively in verbal, electronic and written form
SECTION D – SEEING THE WIDER CONTEXT	
<i>Keeps up to date with current practice</i>	Maintain a broad background clinical knowledge
<i>Works within professional and organisational standards</i>	Know professional and personal limitations, seek advice where necessary Work within the professional code of ethics and UKMi code of practice
<i>Understands and manages risk at an individual level</i>	Are aware of and take steps to minimise risk

SECTION 3 – WORK BASED LEARNING ACTIVITES

By the end of the rotation you should have completed **Training Activities a) to f)**. These are not listed in the order that you should complete them - you will find that you complete sections in all the activities throughout the rotation. **You may need to study in your own time in order complete workbook tutorials and activities.**

a) UKMi WORKBOOK TUTORIALS

By the end of the MI rotation you should have completed the following Workbook Tutorials:

UKMi Workbook Tutorials
1-7: Already completed in Pre-Reg Year Please obtain the learning outcomes for tutorials 1-7 from Blackboard or MI Educational Facilitator
Tutorial: Drugs in Renal Disease
Tutorial: Drugs in Liver Disease
Tutorial: Drugs in Breastfeeding
Tutorial: Children and Medicines
Tutorial: Alternative Medicines
Tutorial: Substance Misuse
Tutorial: Travel Medicine
Tutorial: Pharmacokinetics

The specific learning outcomes associated with the above eight tutorials are listed below. Practitioners should ensure that they have met all the learning outcomes for all 15 tutorials above by the end of the *Foundations of General Practice* module (please tick and date learning outcomes as you achieve them).

General Skills

LEARNING OUTCOME	ACHIEVED?
1) Describe the structure of MI provision within the UK.	
2) Know the common types of enquiries received in MI, and the standard questions to ask when faced with these enquiries.	
3) Know i) how and when to use the information sources on the UKMi Minimum Recommended Resources List, including textbooks, databases, bibliographic databases, websites etc., and ii) their advantages and limitations.	
4) Identify sources external to the NHS that are used to obtain information.	
5) Demonstrate knowledge of the Quality Standards that underpin a MI service, and have specific working knowledge of the "Guidelines for Ensuring Quality in Enquiry Answering".	
6) Be aware of the risks associated with delivering a Medicines Information service.	
7) Describe the principles of good communication when applied to enquiry answering, including verbal and written communication.	
8) Demonstrate the ability to use the Enquiry Management database to accurately record and retrieve enquiries.	
9) Describe the CASP framework (or other approved framework) as applied to the evaluation of a randomised controlled trial	
10) Possess a working knowledge of legal and ethical issues as they relate to the provision of the MI service.	

Tutorial: Drugs in Renal Disease (see also Clinical Curriculum Guide)

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> • Describe the effect of renal impairment on the pharmacokinetics of drugs in terms of excretion, distribution and metabolism. 	
<ul style="list-style-type: none"> • Be able to estimate a patient's GFR using the Cockcroft and Gault (C&G) equation and: <ul style="list-style-type: none"> ○ Be able to relate a patient's estimated GFR to mild, moderate or severe renal impairment. ○ Know the limitations of the C&G equation, list patient groups in whom its use is unsuitable and suggest alternative methods of determining renal function. 	
<ul style="list-style-type: none"> • Identify some common drugs eliminated unchanged by the kidney that require closer monitoring and possible dose adjustment in renal impairment. 	
<ul style="list-style-type: none"> • List the 4 main types of renal replacement therapy. 	
<ul style="list-style-type: none"> • Describe the factors affecting the removal of a drug from the blood by dialysis. 	
<ul style="list-style-type: none"> • Identify the 3 common causes of drug induced renal impairment 	
<ul style="list-style-type: none"> • Know the standard questions to ask an enquirer to obtain the relevant background information when asked about a dose adjustment for a drug in renal impairment. 	
<ul style="list-style-type: none"> • Demonstrate knowledge of the common information sources used when answering enquiries related to drugs in renal impairment; their advantages and disadvantages. 	

Tutorial: Drugs in Liver Disease (see also Clinical Curriculum Guide)

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> Describe the effects of liver disease on drug handling. 	
<ul style="list-style-type: none"> Describe the common terminology used/associated with liver disease. 	
<ul style="list-style-type: none"> Identify the factors that are used in assessing the severity of liver disease or extent of liver dysfunction. 	
<ul style="list-style-type: none"> Know the individual elements of the LFT's, and when a change in their value is considered significant. 	
<ul style="list-style-type: none"> Explain the limitations in using LFT's alone to assess the severity of liver disease or extent of liver dysfunction. 	
<ul style="list-style-type: none"> Know the basic principles for prescribing drugs in liver disease, this is to include examples of drugs that should be avoided or used cautiously in liver disease. 	
<ul style="list-style-type: none"> Give examples of drugs that may be associated with causing liver disease. 	
<ul style="list-style-type: none"> Know the standard questions to ask an enquirer to obtain the relevant background information when asked about the dosage or suitability of a drug in liver disease. 	
<ul style="list-style-type: none"> Demonstrate knowledge of the common information sources used when answering enquiries relating to drugs in liver disease; their advantages and disadvantages. 	

Tutorial: Drugs in Breastfeeding

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> Describe the advantages to mother and baby of breast feeding 	
<ul style="list-style-type: none"> Describe the main drug characteristics which determine the extent to which the drug will pass into breast milk. 	
<ul style="list-style-type: none"> Explain the factors which affect the choice of drug treatment in woman who is breast-feeding. 	
<ul style="list-style-type: none"> Suggest a number of ways to reduce the risk to the baby associated with drug use in breast-feeding 	
<ul style="list-style-type: none"> Explain why it is important to ask the age of the infant, whether premature or full term, and whether the infant is healthy. 	
<ul style="list-style-type: none"> Explain why the same drug used throughout pregnancy cannot be assumed to be safe and unlikely to cause any problems in the breastfeeding infant. 	
<ul style="list-style-type: none"> Know the standard questions to ask an enquirer to obtain the relevant background information when asked about a drug whilst breast-feeding. 	
<ul style="list-style-type: none"> Demonstrate knowledge of the common information sources used when answering enquiries related to breast-feeding; their advantages and disadvantages 	

Tutorial: Children and Medicines

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> Explain why handling questions (enquiries) about medicines in children usually presents more of a challenge than in adults. 	
<ul style="list-style-type: none"> Give examples of frequently asked questions relating to use of medicines in children. 	
<ul style="list-style-type: none"> Know the appropriate sources to use for enquiries related to 'What is the dose of...?' for both licensed and unlicensed medicines and uses. 	
<ul style="list-style-type: none"> Know the factors to be taken into consideration when advising on administration of a dose and calculating doses. 	
<ul style="list-style-type: none"> Describe the options to consider when asked about administration of a medicine via a feeding tube when a licensed liquid preparation is not available. 	
<ul style="list-style-type: none"> Give examples of drugs that are generally not used in children if possible due to safety concerns and how you would handle enquiries of this nature. 	
<ul style="list-style-type: none"> Identify examples of problem excipients and their effects when used in children. 	
<ul style="list-style-type: none"> Know the common reasons for medication errors in children and how you would prevent them from occurring. 	
<ul style="list-style-type: none"> Know the appropriate steps to be taken to ensure that the patient, you and health care professionals are protected when dealing with enquiries related to unlicensed/off-label medicines. 	
<ul style="list-style-type: none"> Identify the essential details about the child that are required when answering enquiries related to children. 	
<ul style="list-style-type: none"> Demonstrate knowledge of the common information sources used when answering enquiries related to use of medicines in children; their advantages and disadvantages 	

Tutorial: Alternative Medicines

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> • Define herbal medicines, homeopathic medicines and dietary supplements and list common examples of each. 	
<ul style="list-style-type: none"> • For homeopathic medicines: <ul style="list-style-type: none"> ○ Know the principles of homeopathic medicines ○ Describe the systems of dilution that exist ○ Know the strengths of dilutions that are unlikely to contain any molecules of active ingredients. ○ Know the strengths of homeopathic remedies most commonly encountered OTC. 	
<ul style="list-style-type: none"> • Explain the regulations that exist for herbal medicines, homeopathic medicines and dietary supplements. 	
<ul style="list-style-type: none"> • Describe the safety issues surrounding herbal medicines, homeopathic medicines and dietary supplements 	
<ul style="list-style-type: none"> • Know the standard questions to ask an enquirer to obtain the relevant background information when asked about alternative medicines. 	
<ul style="list-style-type: none"> • Demonstrate knowledge of the common information sources used when answering enquiries relating to alternative medicines; their advantages and disadvantages. 	

Tutorial: Substance Misuse (see also Clinical Curriculum Guide)

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> Define the terms 'drug misuse or abuse', and 'drug withdrawal.' 	
<ul style="list-style-type: none"> Explain the difference between 'drug dependence' and 'drug tolerance.' 	
<ul style="list-style-type: none"> Identify examples of drugs involved in substance misuse and describe their associated broad pharmacological effects. 	
<ul style="list-style-type: none"> Describe the different routes used for administering substances of misuse. 	
<ul style="list-style-type: none"> Describe the 4 basic methods in dealing with withdrawal. 	
<ul style="list-style-type: none"> Describe the treatment of opioid dependence, including common doses of methadone used and considerations for discharge. 	
<ul style="list-style-type: none"> Describe the treatment of alcohol dependence, including treatment of acute alcohol withdrawal, vitamin supplementation and considerations for discharge. 	
<ul style="list-style-type: none"> Know the questions to ask an enquirer to obtain the relevant background information when asked about i) misuse of drugs and ii) drug withdrawal. 	
<ul style="list-style-type: none"> Demonstrate knowledge of the common information sources used when answering enquiries relating to substance misuse/drug withdrawal; their advantages and disadvantages. 	

Tutorial: Travel Medicine

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> Explain how malaria is transmitted and describe the lifecycle of the protozoan parasite Plasmodium. 	
<ul style="list-style-type: none"> Identify the four Plasmodium species that can cause malaria in humans, and specify the one that causes the most severe form of malaria. 	
<ul style="list-style-type: none"> Describe the 4 main regimes that are used for malaria prophylaxis, to include drug name, adult dose, duration of administration and any licensing restrictions on length of treatment. 	
<ul style="list-style-type: none"> Give examples of patient groups or disease states needing special consideration when selecting malaria prophylaxis. Describe the main contra-indications to the 4 main regimes (including the reasons they should be avoided in particular patients.) 	
<ul style="list-style-type: none"> Identify the main groups of vaccine types, and specify the precautions that need to be observed with respect to timing when administering more than one vaccine, from the same group, or different groups. 	
<ul style="list-style-type: none"> Give examples of patient groups or diseases states needing special consideration when administering vaccines and explain why. 	
<ul style="list-style-type: none"> Describe the general precautions that travellers should observe to i) reduce risk of contracting malaria/being bitten by mosquitoes, ii) avoid GI upset when eating and drinking and iii) reduce possible sun induced skin damage. 	
<ul style="list-style-type: none"> Know the standard questions to ask an enquirer to obtain the relevant background information when asked about the appropriate malaria prophylaxis and vaccine requirements for travel abroad. 	
<ul style="list-style-type: none"> Demonstrate knowledge of the common information sources used when answering enquiries related to malaria prophylaxis and vaccine requirements for travellers; their advantages and disadvantages. 	

Tutorial: Pharmacokinetics (see also Clinical Curriculum Guide)

LEARNING OUTCOME	ACHIEVED?
<ul style="list-style-type: none"> • Define the following terms: <ul style="list-style-type: none"> ○ Pharmacokinetics ○ Pharmacodynamics ○ Bioavailability ○ Volume of Distribution ○ Clearance ○ Steady-state ○ Half-life 	
<ul style="list-style-type: none"> • For drug clearance by the liver and kidneys: <ul style="list-style-type: none"> ○ List the 3 processes of drug clearance by the kidneys ○ Define phase I and phase II reactions of drug metabolism in the liver ○ Describe 1st pass metabolism <i>and extraction ratio</i>. 	
<ul style="list-style-type: none"> • Describe examples of how pharmacokinetics are different with age in: <ul style="list-style-type: none"> ○ Elderly patients ○ Paediatric patients 	
<ul style="list-style-type: none"> • Describe examples of clinical situations when Therapeutic Drug Monitoring (TDM) would be used. 	
<ul style="list-style-type: none"> • Identify medicines which require TDM. 	
<ul style="list-style-type: none"> • Define the term protein-binding and describe how it affects a drug's pharmacokinetics. 	
<ul style="list-style-type: none"> • Know the standard questions to ask an enquirer to obtain the relevant background information when asked about interpreting a plasma drug level 	
<ul style="list-style-type: none"> • Demonstrate knowledge of the common information sources used when answering enquiries relating to pharmacokinetics and TDM, and their advantages and disadvantages. 	

b) CRITICAL APPRAISAL

By the end of the MI rotation you should have:

Critical Appraisal Activity	Signature of MI Educational Facilitator when complete
1) Completed the UKMI Tutorial 5 Critical Evaluation as a pre-registration Pharmacist OR during this rotation	
2) Completed the MiCAL module of Critical Appraisal (you may have already completed this in 1 above)	
3) Attended at least 1 Journal Club or equivalent meeting (e.g. Formulary/D&T meeting), or completed an enquiry/piece of work that demonstrates that you have used the CASP checklist (or another approved framework) in reviewing a RCT	

c) ENQUIRY ANSWERING

By the end of the MI rotation you should have effectively* answered a wide range of enquiries as listed in the table.

*As assessed by MI pharmacist, to include background information established, search strategy & information sources used, & evaluation of information to produce a summary that is communicated effectively to the enquirer. Finally the enquiry should be documented following UKMI guidelines. If you are not able to obtain examples of all types, then provided you have completed the associated Tutorial in the workbook, this may be sufficient – this will be at the discretion of the MI pharmacist.

TYPE OF ENQUIRY	Specify: Enquiry Title and/or Enquiry Number	Signature of MI Educational Facilitator when complete
Administration of medicines (e.g. Advice on Enteral, Parenteral administration etc)	1) 2)	
Adverse Drug Reaction	1) 2)	
Alternative Medicines	1) 2)	
Breastfeeding	1) 2)	
Drug Interaction	1) 2)	
ID of medicines e.g. foreign meds, tablet ID.	1)	
Compatibility of Injectable drugs	1) 2)	
Liver disease	1)	
Pregnancy	1) 2)	
Renal	1)	
Travel medicine/ Immunisation	1)	

d) WRITTEN COMMUNICATION

By the end of the MI rotation you should have:

	Specify: Enquiry Title, Enquiry Number & Date Achieved	Signature of MI Educational Facilitator when complete
Produced formal written responses for at least 2 enquiries* (Refer to UKMI Workbook Section C.5 for information on Writing Skills)	1) 2)	

*Replies that have been approved by MI Pharmacist

e) DATABASE/INTERNET SEARCHING

By the end of the MI rotation you should have demonstrated via your enquiries that you can effectively* use the databases/websites listed in the table.

* As assessed by MI pharmacist, to include appropriate thesaurus terms, search strategy, recording of search history etc.

If the opportunity does not arise to use the specified databases for your enquiries, you may be required to complete a MiCAL enquiry to allow you to use these and/or discuss the principles of searching the databases with a MI pharmacist. This will be at the discretion of the MI pharmacist.

You will also have opportunity to use other electronic resources while answering different types of enquiries in (c) above. Examples listed in this section are those that you would use to retrieve Primary Literature or Evidence Based Information or are Recognised MI sites.

	Specify: Enquiry Title, Enquiry Number & Date Achieved	Signature of MI Educational Facilitator when complete
MEDLINE	1)	
EMBASE	1)	
COCHRANE	1)	
NELM http://www.nelm.nhs.uk	1)	
NLH http://www.library.nhs.uk	1)	
UKMI via NELM or http://www.ukmi.nhs.uk	1)	

f) UKMi STRATEGY / CLINICAL GOVERNANCE / ETHICAL ISSUES

By the end of the MI rotation you should:

(If the opportunity to demonstrate knowledge in these areas does not arise during the rotation e.g. via your enquiries, you may be required to discuss this with a MI Pharmacist during rotation/assessment)

	Signature of MI Educational Facilitator when complete
<p>1) Be aware of the contents of the 'UKMi Strategy Document'. This is the strategy for MI services within the NHS.</p> <ul style="list-style-type: none"> - Access strategy via http://www.ukmi.nhs.uk, then select "UKMi" then "UKMi Strategy" - Be familiar with the contents of the most recent version of the strategy 	
<p>2) Have read the UKMi Legal & Ethical Briefings</p> <ul style="list-style-type: none"> - Access documents via http://www.ukmi.nhs.uk, then select "UKMi activities" then "Clinical Governance" then "Legal & Ethical" 	
<p>3) Be aware of the National Standards for MI - appreciate their need & purpose and application to practice</p> <ul style="list-style-type: none"> - Access standards via http://www.ukmi.nhs.uk, then select "UKMi activities" then "Clinical Governance" then "Service Standards" 	

SECTION 4 – ASSESSMENT

- Assessment will take place midway (1st appraisal) and at the end of your rotation (2nd appraisal)
- This is a competency based assessment, and you will be expected to **provide and/or discuss** evidence to support the competencies with an MI Educational Facilitator so that he/she can assess whether you have attained the competency or not. Examples of types of evidence are stated in the table. Remember you have been assessed throughout the rotation via regular review & feedback on your enquiries by MI pharmacists, direct observation, discussion etc. This also forms evidence for the assessment.
- This competency based assessment is evaluated using a specific MI competency framework and a generic competency framework which is taken from the general level framework. The generic aspects covered in the GLF represent personal, problem solving and management and organisation competencies.
- The MI specific competency assessment will be made according to the key below. At the end of the MI rotation you should have attained all the competencies i.e. achieved C. If you do not you may need to undergo further training - this will be at the discretion of the MI Educational Facilitator/manager. Hopefully this will not happen, as you will be working to achieve these competencies by completing the learning/training activities throughout the rotation. Therefore any training issues can be identified and addressed at an earlier stage and not at the end of your rotation.
- **Guidance for MI specific competency assessment:**
 - NA** Not assessed
 - FD** Further Development needed (Evidence indicates that trainee requires further development to reach the required standard)
 - FE** Further Evidence needed (Evidence indicates competence but further evidence needed to confirm consistency)
 - C** Competent (Evidence indicates that required standard consistently achieved with little or no intervention)
- **Information for completing the MI competency framework**
 - Column 1 (C1)** – Lists the competencies
 - Column 2 (C2)** – Lists the statements that you need to demonstrate to achieve the competency
 - Column 3 (C3)** – Lists the types of evidence that you have to support column 2 statements
 - Examples** of evidence are provided, the list is not exhaustive (you may include other examples of evidence - ensure you record this in the assessment document) and neither do you have to produce all the types of evidence listed – this is at the discretion of the individual and the MI Educational Facilitator.

MI pharmacist will assess with you the type of evidence that you have provided and/or demonstrated during rotation etc. and then provide an assessment for each competency i.e. as in C4 and C5.

Column 4 & 5 (C4, C5) – The competency assessment for Appraisal 1 and 2 respectively, according to the key above i.e. NA, FD, FE or C.

▪ **Guidance for generic competency assessment**

Please refer to the General Level Competency Framework Handbook for full details of the competencies against which you will be assessed and information relating to the completion of the generic competencies. For ease of reference a grid has been developed that lists all GLF competencies (see below).

Key for completion of relevant sections of GLF:

- a – initial self-assessment completed by practitioner at the beginning of MI rotation
 - b - assessment completed by MI Educational Facilitator and practitioner half-way through MI rotation
 - c - assessment completed by MI Educational Facilitator and practitioner at the end of MI rotation
 - d – twelve month assessment completed by practice tutor (full GLF completion)
- At the end of the assessment, please provide your comments and give a copy to the MI Educational Facilitator/MI manager. Please also complete the Evaluation form.

MI COMPETENCY ASSESSMENT FORM PHARMACIST NAME: _____

C1 Competency	C2 Demonstrate that you can:	C3 MI Ed. Facilitator to sign acceptance of evidence produced to support Column 2 statements	C4 1 st App.	C5 2 nd App.	
SECTION A – DELIVERING THE MI SERVICE			MI Facil sign.	Circle overall assessment	
Delivers own work to time	Deliver work within agreed deadlines	Demonstrated via enquiries as assessed by MI p'cist (& reasons specified if not met)		NA	NA
		Feedback from MI p'cist enquiries completed on time		FD	FD
		Observation from MI p'cist that ward visit conducted within agreed time (& reasons specified if not able to)		FE	FE
	Prioritise own work and adjust priorities in response to changing circumstances	Demonstrated via enquiries work completed according to need/priority.		NA	NA
Feedback from MI p'cist via observation that you are able to prioritise/adjust priorities			FD	FD	
Feedback from MI staff that you effectively handover enquiries to colleagues to meet deadlines/priorities			FE	FE	
Discuss example(s) of situation(s) when you have prioritised			C	C	
Ensures quality in own work	Seek quality review of own work from experienced colleagues, acts upon advice given	Feedback from MI p'cist that you seek review of own work, and act on advice		NA	NA
		Discuss enquiries that demonstrate that you actively requested review & acted on advice given		FD	FD
Works accurately with information management systems	Make effective use of IT (e.g.: databases)	Effectively completed Section 3E i.e. enquiries that demonstrate that you can effectively use databases		NA	NA
		Feedback from MI p'cist via enquiries that you can effectively use databases to find information. This would include e.g. Toxbase, Nat Meds Database etc.		FD	FD
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 1 ST APPRAISAL			DATE		
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 2 ND APPRAISAL			DATE		

SECTION B – WORKING WITH PEOPLE			MI Facil sign	Circle overall assessment		
Is a committed member of the MI team	Accepts responsibility for own work (and for those in training where appropriate)	Demonstrated via signing your enquiry forms		NA	NA	
		Discuss example(s) of situations when you helped e.g. pre-reg, & accepted responsibility for advice provided.		FD	FD	
		Feedback from MI p'cist via observation that you accept responsibility for own work		FE	FE	
	Know when to ask for help	Discuss situation(s) when you accepted a potential error/error when identified by MI p'cist through review of your enquiries, and the action taken to rectify this		C	C	
		Feedback from MI p'cist via observation that you ask for help appropriately		NA	NA	
		Discuss situation(s) when knowledge or skills were limited & asked for help		FD	FD	
Develops relationships with enquirers, inspires confidence in the service	Is polite and helpful	Feedback from MI staff		FE	FE	
		Feedback from enquirers if available		C	C	
	Use questioning effectively to establish and understand the query	Effectively completing Section 3C i.e. enquiries that demonstrate you are able to gather & document the essential b'ground information through effective questioning for a variety of enquiries		NA	NA	
		Feedback from MI p'cist via observation & enquiries that you use questioning effectively		FD	FD	
	Understand the needs and priorities of enquirers, explains when the query will be answered	Demonstrated via deadline on your enquiry forms, and specify reason if it can't be met.		FE	FE	
		Feedback from MI p'cist via observation that you understand the needs and priorities of enquirers, and explain deadline for enquiry		C	C	
		Discuss example(s) of situation(s) when you negotiated deadline according to workload and need of enquirer		NA	NA	
		Feedback from enquirers if available		FD	FD	
	COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 1 ST APPRAISAL			DATE		
	COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 2 ND APPRAISAL			DATE		

SECTION C – WORKING WITH INFORMATION			MI Facil sign	Circle overall assessment	
Designs and executes basic search strategies	Plan and record a search strategy appropriate to the task	Effectively completing Section 3C i.e. variety of enquiries that demonstrate you are able to effectively plan & record search strategy		NA FD FE C	NA FD FE C
		Feedback from MI p'cist via review of enquiries that you plan & employ appropriate search strategy.			
	Know how (and when) to use all information sources on the UKMi minimum resource list	Effectively completing Section 3C i.e. demonstrate you know how & when to use sources for variety of enquiries		NA FD FE C	NA FD FE C
		Feedback from MI p'cist via review of enquiries that you are able to effectively use the sources.			
		Able to discuss resource that you have not used i.e. when and how it would be used			
	Evaluates and applies information at a basic level	Follow a logical approach to problem definition and solving	Effectively completing Section 3C i.e. variety of enquiries that demonstrate you follow a logical approach in defining & solving problems		NA FD FE C
Feedback from MI p'cist via enquiries that you are able to follow a logical approach to problems.					
Identify relevant information and disregard irrelevant information in a systematic way		Demonstrated via enquiries that you are able to identify relevant information and disregard irrelevant information systematically		NA FD FE C	NA FD FE C
		Feedback from MI p'cist via enquiries/observation that you are able to do above			
		Feedback from MI p'cist re your contribution to journal club that demonstrates above			
Summarise evaluated information to give appropriate factual information and/or professional opinion.		Effectively completing Section 3C i.e. variety of enquiries that demonstrate that you are able to evaluate information to provide factual information and/or professional opinion.		NA FD FE C	NA FD FE C
	Feedback from MI p'cist via enquiries that you are able to do above.				
Communicates information effectively and articulately	Communicate effectively in verbal, electronic and written form	Effectively completing Section 3D		NA FD FE C	NA FD FE C
		Feedback from MI p'cist from observation.			
		Demonstrated via accurate and complete documentation of enquiries			
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 1 ST APPRAISAL			DATE		
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 2 ND APPRAISAL			DATE		

SECTION D – SEEING THE WIDER CONTEXT			MI Facil sign	Circle overall assessment	
Keeps up to date with current practice	Maintain a broad background clinical knowledge	Demonstrated by regular ward commitment & discuss example(s) when you have used knowledge on ward to answer enquiries		NA FD FE C	NA FD FE C
		Demonstrated by attending in-house training sessions & discuss example(s) when you have used knowledge acquired to answer enquiries			
		Demonstrated by regularly reading NeLM news & discuss example(s) when you have used this to answer enquiries or demonstrated that you keep up to date.			
Works within professional and organisational standards	Know professional and personal limitations, seek advice where necessary	Discuss example(s) of situation(s) when referral made to e.g. senior p'cist/specialist services		NA FD FE C	NA FD FE C
		Feedback from MI p'cist via observation/enquiries that you are aware of your limitation and refer appropriately			
	Work within the professional code of ethics and UKMi code of practice	Discuss example(s) of situation(s) e.g. enquiries (real or practice), other areas of work, that have involved an ethical stance and how you dealt with it.		NA FD FE C	NA FD FE C
		Feedback from MI p'cist via observation/enquiries that you work in accordance within codes specified			
Under-stands and manages risk on an individual basis	Are aware of and take steps to minimise risk	Demonstrate awareness of QA standards via discussion with MI p'cist. In particular relating to Enquiry Answering Quality guidelines on Documentation/Analysis/Coverage/Answer .		NA FD FE C	NA FD FE C
		Discuss example(s) of situation(s) when you have been aware of potential risk & action you took to minimise this e.g. counselling patient re medicines, supervising pre-reg, unlicensed medicines enquiries etc			
		Feedback from MI p'cist via observation/ enquiries that demonstrate you are aware of and take steps to minimise risk.			
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 1 ST APPRAISAL			DATE		
COMMENTS (MI ED. FACILITATOR) (OPTIONAL) 2 ND APPRAISAL			DATE		

ADDITIONAL COMMENTS:

1st APPRAISAL (MID-WAY)

DATE _____

Practitioner - please prepare to discuss questions 1-4 with Mi Ed. Facilitator at the appraisal:

1) In which areas do you think you have made good progress and/or done particularly well?
2) In which areas have you identified that improvement is required?
3) What further training and developmental needs have been identified?
4) Action plan for remainder of rotation:
5) General comment from Mi Educational Facilitator

Pharmacist name & signature:.....

MI Ed. Facilitator name & signature:.....

ADDITIONAL COMMENTS:

2nd APPRAISAL (END OF ROTATION)

DATE_____

Practitioner - please prepare to discuss questions 1-4 with Mi Ed. Facilitator at the appraisal:

<p>1) In which areas do you think you have made good progress and/or done particularly well?</p>
<p>2) In which areas have you identified that improvement is required? How will you address these in the future?</p>
<p>3) Were you able to meet all your training & development needs identified at your first appraisal? If not why?</p>
<p>4) Please provide general comments about the placement e.g. enough time provided for development? Any barriers encountered? Positive aspect of placement? Aspects to change? etc.</p>
<p>General comments by Mi Educational Facilitator</p>

Pharmacist name & signature:.....

MI Ed. Facilitator name & signature:.....

GRID OF GLF COMPETENCIES

General Level Framework (GLF)			
GLFDPC	DELIVERY OF PATIENT CARE COMPETENCIES (DPC)		
GLFDPC1	Patient Consultation		
GLFDPC1.1		Patient Consultation :	Patient Assessment
GLFDPC1.2		Patient Consultation :	Consultation or referral
GLFDPC1.3		Patient Consultation :	Recording consultations
GLFDPC1.4		Patient Consultation :	Patient consent
GLFDPC2	Need for the drug		
GLFDPC2.1		Need for the drug:	Relevant Patient Background
GLFDPC2.2		Need for the drug:	Drug History
GLFDPC3	Selection of drug		
GLFDPC3.1		Selection of drug:	Drug – drug interactions identified
GLFDPC3.2		Selection of drug:	Drug – drug interactions prioritised
GLFDPC3.3		Selection of drug:	Drug – drug interactions actioned
GLFDPC3.4		Selection of drug:	Drug – patient interactions identified
GLFDPC3.5		Selection of drug:	Drug – patient interactions prioritised
GLFDPC3.6		Selection of drug:	Drug – patient interactions actioned
GLFDPC3.7		Selection of drug:	Drug – disease interactions identified
GLFDPC3.8		Selection of drug:	Drug – disease interactions prioritised
GLFDPC3.9		Selection of drug:	Drug – disease interactions actioned
GLFDPC4	Drug Specific Issues		
GLFDPC4.1		Drug Specific Issues:	Ensures appropriate dose
GLFDPC4.2		Drug Specific Issues:	Selection of dosing regimen: route
GLFDPC4.3		Drug Specific Issues:	Selection of dosing regimen: timing
GLFDPC4.4		Drug Specific Issues:	Selection of formulation
GLFDPC4.5		Drug Specific Issues:	Selection of concentration
GLFDPC5	Provision of drug product		
GLFDPC5.1		Provision of drug product:	The prescription is clear
GLFDPC5.2		Provision of drug product:	The prescription is legal
GLFDPC5.3		Provision of drug product:	The correct medicine is dispensed
GLFDPC5.4		Provision of drug product:	The medicine is dispensed in a timely manner
GLFDPC6	Medicines Information and patient education		
GLFDPC6.1	Medicines Information and patient education :		Public Health
GLFDPC6.2	Medicines Information and patient education :		Health Needs
GLFDPC6.3	Medicines Information and patient education :		Need for information is identified
GLFDPC6.4	Medicines Information and patient education :		Medicines Information
GLFDPC6.5	Medicines Information and patient education :		Provision of written information
GLFDPC7	Monitoring drug therapy		
GLFDPC7.1		Monitoring drug therapy:	Identification of medicines management problems
GLFDPC7.2		Monitoring drug therapy:	Prioritisation of medicines management problems
GLFDPC7.3		Monitoring drug therapy:	Use of Guidelines
GLFDPC7.4		Monitoring drug therapy:	Resolution of medicines management problems
GLFDPC7.5		Monitoring drug therapy:	Record of contributions
GLFDPC8	Evaluation of outcomes		
GLFDPC8.1		Evaluation of outcomes:	Assessing outcomes of contributions

PERSONAL COMPETENCIES (PC)			
GLFPC1	Organisation		
GLFPC1.1		Organisation:	Prioritisation
GLFPC1.2		Organisation:	Punctuality
GLFPC1.3		Organisation:	Initiative
GLFPC1.4		Organisation:	Efficiency
GLFPC2	Effective Communication Skills		
GLFPC2.1		Effective Communication Skills:	Patient and Carer
GLFPC2.2		Effective Communication Skills:	Medical Staff
GLFPC2.3		Effective Communication Skills:	Nurses
GLFPC2.4		Effective Communication Skills:	Other Healthcare Professionals
GLFPC2.5		Effective Communication Skills:	Other Health Staff
GLFPC2.6		Effective Communication Skills:	Immediate Pharmacy Team
GLFPC2.7		Effective Communication Skills:	Mentor/tutor
GLFPC2.8		Effective Communication Skills:	Employing Organisation
GLFPC2.9		Effective Communication Skills:	Linked Organisations
GLFPC3	Team work		
GLFPC3.1		Team work:	Pharmacy Team: Recognises value
GLFPC3.2		Team work:	Pharmacy Team: Works as part of the team
GLFPC3.3		Team work:	Multi-disciplinary team: Recognises value
GLFPC3.4		Team work:	Multi-disciplinary team: Uses appropriate referral
GLFPC3.5		Team work:	Organisational Team
GLFPC4	Professionalism		
GLFPC4.1		Professionalism:	Confidentiality
GLFPC4.2		Professionalism:	Recognition of limitation
GLFPC4.3		Professionalism:	Quality and accuracy of documentation
GLFPC4.4		Professionalism:	Legislation
GLFPC4.5		Professionalism:	Responsibility for own action
GLFPC4.6		Professionalism:	Confidence
GLFPC4.7		Professionalism:	Responsibility for patient care
GLFPC4.8		Professionalism:	CPD: Maintain a CPD record
GLFPC4.9		Professionalism:	CPD: Reflect on performance
GLFPC4.10		Professionalism:	CPD: Identify learning needs
GLFPC4.11		Professionalism:	CPD: Evaluates learning
PROBLEM SOLVING COMPETENCIES (PS)			
GLFPS1	Gathering Information		
GLFPS1.1		Gathering Information:	Accesses information
GLFPS1.2		Gathering Information:	Summarises information
GLFPS1.3		Gathering Information:	Up to date information
GLFPS2	Knowledge		
GLFPS2.1		Knowledge:	Pathophysiology
GLFPS2.2		Knowledge:	Pharmacology
GLFPS2.3		Knowledge:	Side effects
GLFPS2.4		Knowledge:	Interactions
GLFPS3	Analysing information		
GLFPS3.1		Analysing information:	Evaluates information
GLFPS3.2		Analysing information:	Problem identification
GLFPS3.3		Analysing information:	Appraises options
GLFPS3.4		Analysing information:	Decision making
GLFPS3.5		Analysing information:	Logical Approach
GLFPS4	Providing information		
GLFPS4.1		Providing information:	Provides accurate information
GLFPS4.2		Providing information:	Provides relevant information
GLFPS4.3		Providing information:	Provides timely information
GLFPS5	Follow up		
GLFPS5.1		Follow up:	Ensures resolution of problem

MANAGEMENT AND ORGANISATION COMPETENCIES (MO)			
GLFMO1	Clinical Governance		
GLFMO1.1		Clinical Governance:	Clinical Governance issues
GLFMO1.2		Clinical Governance:	Standard Operating Procedures
GLFMO1.3		Clinical Governance:	Working Environment
GLFMO1.4		Clinical Governance:	Risk Management: Documents critical incidents
GLFMO1.5		Clinical Governance:	Risk Management: Forwards critical incidents
GLFMO2	Service Provision		
GLFMO2.1		Service Provision:	Quality of Service
GLFMO2.2		Service Provision:	Service Development: Describe key drivers
GLFMO2.3		Service Provision:	Service Development: Need for new services
GLFMO3	Budget setting and reimbursement		
GLFMO3.1		Budget setting and reimbursement:	Service Reimbursement: Reference sources
GLFMO3.2		Budget setting and reimbursement:	Service Reimbursement: Claims appropriately
GLFMO3.3		Budget setting and reimbursement:	Prescribing budgets
GLFMO4	Organisations		
GLFMO4.1		Organisations:	Organisational structure
GLFMO4.2		Organisations:	Linked Organisation
GLFMO4.3		Organisations:	Pharmaceutical Industry
GLFMO5	Training		
GLFMO5.1		Training:	Pharmacy Staff
GLFMO5.2		Training:	Other healthcare professionals
GLFMO6	Staff Management		
GLFMO6.1		Staff Management:	Performance management
GLFMO6.2		Staff Management:	Staff development
GLFMO6.3		Staff Management:	Employment issues
GLFMO7	Procurement		
GLFMO7.1		Procurement:	Pharmaceutical: Describe sourcing
GLFMO7.2		Procurement:	Pharmaceutical: Timely sourcing
GLFMO7.3		Procurement:	Supply problems
GLFMO7.4		Procurement:	Stock management
GLFMO7.5		Procurement:	Cost effectiveness

SECTION 5 - EVALUATION

MI Centre:

Name: (optional).....

MI Trainer:

Period of training.....

	Strongly agree	Agree	Disagree	Strongly disagree
The objectives of the rotation were relevant to the rotation				
The objectives of the rotation were met				
I have had the opportunity to gain practical skills during this rotation				
Adequate supervision was given				
Adequate responsibility was given				
Appraisals were timely and constructive				
Adequate time was allowed for development				
Adequate feedback on progress was given				

What did you like best about this rotation?

What did you like least about this rotation?

How could this rotation be improved?

Please complete this form and return to MI Educational Facilitator. Thank you

SECTION 5 - EVALUATION

MI Centre:

Name: (optional).....

MI Trainer:

Period of training.....

	Strongly agree	Agree	Disagree	Strongly disagree
The objectives of the rotation were relevant to the rotation				
The objectives of the rotation were met				
I have had the opportunity to gain practical skills during this rotation				
Adequate supervision was given				
Adequate responsibility was given				
Appraisals were timely and constructive				
Adequate time was allowed for development				
Adequate feedback on progress was given				

What did you like best about this rotation?

What did you like least about this rotation?

How could this rotation be improved?

Please complete this form and return to MI Educational Facilitator Thank you