



School of Pharmacy,
University of London

Postgraduate Diploma
in
General Pharmacy Practice

**CLINICAL SERVICES
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 Hertfordshire
University of Portsmouth
University of Reading

INTRODUCTION

This curriculum guide is intended to direct the learner towards the relevant skills and knowledge required of a general pharmacy practitioner providing clinical pharmacy services. 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).

The programme recognises that access to the variety of patients representing a “general” level of care will not follow a standard approach, being influenced by the various rotations on offer within the Training Centre. Consequently the general learning objectives have been presented in a generic format so that they can be achieved in **a range of different patient care settings**. The specific learning objectives associated with the different disease states have then been listed and should all be achieved on completion of the PG Cert GPP. In addition a list of commonly used and high risk drugs has been produced to help practitioners focus their learning (see Appendix I).

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 clinical services 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.

CONTENTS

1.	Global learning objectives	4
2.	General Practice learning objectives	5
3.	Specific, Disease Based, learning objectives	9
4.	General Level Framework (GLF)	11
Appendix I	List of commonly used and high risk medicines	15

1. GLOBAL LEARNING OBJECTIVES

- Consult effectively with patients, carers and the multidisciplinary healthcare team, respecting diversity and confidentiality.
- Independently develop clinical pharmacy knowledge and skills in order to identify, prioritise and resolve complex pharmaceutical problems in a range of common conditions.
- Critically review the overall management and monitoring of patients with a range of common disease states.
- Recognise the evidence-based approach to management of a range of common conditions and apply evidence-based medicine (EBM) to individualised patient care.
- Identify, prioritise and resolve the medicines management needs of patients, carers and other social and health care professionals.
- Demonstrate a systematic approach to medicines management for patients with a range of common conditions.
- Apply pharmacokinetic and pharmacodynamic principles to the design of appropriate drug regimens.
- Advance knowledge and understanding through continuing professional development and life long learning

2. GENERAL PRACTICE LEARNING OBJECTIVES

GENERAL SKILLS	ACHIEVED?
Medicines reconciliation	
<ul style="list-style-type: none"> • Differentiate between and demonstrate understanding of the use of the following processes: <ul style="list-style-type: none"> ○ drug history taking ○ medicines reconciliation ○ medication review ○ medicines use review (MUR) 	
<ul style="list-style-type: none"> • Accurately obtain a drug history (from a variety of sources e.g. patient, carer, GP) 	
<ul style="list-style-type: none"> • Accurately document a drug history 	
<ul style="list-style-type: none"> • Use a structured approach to elicit information 	
<ul style="list-style-type: none"> • Reconcile medicines prescribed on admission with medicines being taken pre- admission 	
<ul style="list-style-type: none"> • Evaluate and comment appropriately on the quality of information collected during the reconciliation process e.g. accuracy, currency, relevance 	
<ul style="list-style-type: none"> • Identify and document intentional and unintentional discrepancies 	
<ul style="list-style-type: none"> • Demonstrate resolution of issues identified or referral to another healthcare practitioner if appropriate 	
<ul style="list-style-type: none"> • Take appropriate action to ensure the prescription is appropriate 	
<ul style="list-style-type: none"> • Accurately document the medicines reconciliation process and outcome(s) in accordance with local policy 	
Prescription prioritisation	
<ul style="list-style-type: none"> • Identify pharmaceutical issues in order to optimise patient care 	
<ul style="list-style-type: none"> • Prioritise the issues identified according to their importance 	
<ul style="list-style-type: none"> • Take appropriate action to resolve issues and ensure interventions are carried out in a timely manner 	
<ul style="list-style-type: none"> • Appropriately follow up on interventions made 	
Discharge processes	see Patient Services Curriculum Guide (CG)
<ul style="list-style-type: none"> • Demonstrate an understanding of how to manage medicines across the interface e.g. compliance aids, homecare, drug dependency, home IV therapy 	
<ul style="list-style-type: none"> • Critically appraise the advantages and disadvantages of compliance aids 	

GENERAL SKILLS	ACHIEVED?
Clinical information gathering	
<ul style="list-style-type: none"> • Demonstrate the ability to locate and interpret relevant information from medical notes 	
<ul style="list-style-type: none"> • Retrieve relevant data from information sources (includes laboratory and end of bed data) 	
<ul style="list-style-type: none"> • Accurately identify a patient's diagnosis from the medical notes. 	
Information query answering	see MI Curriculum Guide
Dosing and administration	see also Technical Pharmacy CG
<ul style="list-style-type: none"> • Undertake all mathematical calculations accurately 	
<ul style="list-style-type: none"> • Apply the appropriate bioavailability calculations to convert between different formulations including tablets, liquids, injections 	
<ul style="list-style-type: none"> • Ensure that appropriate dose conversion occurs between short acting and extended release preparations. 	
<ul style="list-style-type: none"> • Calculate doses from relevant parameters provided e.g. weight, surface area 	
<ul style="list-style-type: none"> • Calculate appropriate volume of fluid required and appropriate rate of administration for drugs administered by infusion 	
<ul style="list-style-type: none"> • Demonstrate the ability to convert between rate of administration in mL and drip rates for IV giving sets/infusion pumps 	
<ul style="list-style-type: none"> • Provide advice on the reconstitution of drugs including taking account of displacement values 	
Biochemistry	
<ul style="list-style-type: none"> • Be able to interpret common biochemistry data including urea and electrolytes (U+Es) and thyroid function tests and understand the clinical consequences of deranged test results 	
<ul style="list-style-type: none"> • Identify the role of potassium, sodium, phosphate, magnesium and calcium with regard to physiological function and the consequences of too little or too much of these electrolytes 	
<ul style="list-style-type: none"> • Identify common medicines and diseases that cause changes to the normal ranges for electrolytes. 	
<ul style="list-style-type: none"> • Provide appropriate advice on correcting electrolyte imbalances 	

GENERAL SKILLS	ACHIEVED?
Drug therapy in renal impairment	See also MI Curriculum Guide
<ul style="list-style-type: none"> Describe the limitations of using urea and creatinine to estimate renal function. 	
<ul style="list-style-type: none"> Estimate glomerular filtration rate using the Cockcroft and Gault equation and describe its limitations 	
<ul style="list-style-type: none"> Describe how eGFR is calculated and its limitations 	
<ul style="list-style-type: none"> Describe alternative methods of estimating renal function and their limitations e.g. 24 hour creatinine clearance, EDTA 	
<ul style="list-style-type: none"> Classify a patient's renal status in accordance with NICE 	
<ul style="list-style-type: none"> Identify common medicines and diseases that cause changes in renal function 	
<ul style="list-style-type: none"> Use the appropriate method to estimate renal function and modify medicines and dosing regimens in line with renal status 	
Drug therapy in liver impairment	See also MI Curriculum Guide
<ul style="list-style-type: none"> Describe the functions of the liver in drug metabolism. 	
<ul style="list-style-type: none"> Demonstrate an understanding of the tests used to estimate liver function 	
<ul style="list-style-type: none"> Be able to interpret tests of liver function and understand the clinical consequences of derangement of each of these 	
<ul style="list-style-type: none"> Identify common medicines and diseases that cause changes in liver function 	
<ul style="list-style-type: none"> Modify medicines and dosing regimens to take account of liver impairment 	
Therapeutic drug monitoring	See also MI Curriculum Guide
<ul style="list-style-type: none"> Identify common pharmacokinetic parameters and demonstrate how these impact on drug dosing decisions 	
<ul style="list-style-type: none"> Identify medicines that require TDM; know when it is appropriate to measure levels and their therapeutic ranges 	
<ul style="list-style-type: none"> Apply pharmacokinetic principles, including calculations when appropriate, to individualise therapy for patients taking medicines with a narrow therapeutic range 	
<ul style="list-style-type: none"> Demonstrate the ability to interpret measured drug levels and make appropriate recommendations 	

GENERAL SKILLS	ACHIEVED?
Haematology	
<ul style="list-style-type: none"> • Be able to interpret common haematological tests and understand the clinical consequences of abnormalities of these 	
<ul style="list-style-type: none"> • Identify common medicines and diseases that cause abnormalities in haematological laboratory tests. 	
<ul style="list-style-type: none"> • Provide advice on the treatment of common haematological abnormalities including clotting disorders 	
Microbiology	
<ul style="list-style-type: none"> • Be able to interpret clinical signs and laboratory tests of patients with infectious diseases 	
<ul style="list-style-type: none"> • Demonstrate an understanding of the rationale for antimicrobial policies 	
<ul style="list-style-type: none"> • Provide advice on antimicrobial treatment, including duration and monitoring, in accordance with local policies 	
<ul style="list-style-type: none"> • Demonstrate understanding and the application of infection control policies 	
Risk management	See also Patient Services and Technical Pharmacy CGs
<ul style="list-style-type: none"> • Identify pharmaceutical and legal risks associated with the prescribing, supply, storage and administration of medicines in your clinical area(s) and respond appropriately 	
<ul style="list-style-type: none"> • Demonstrate that you can take into account identified pharmaceutical and legal risks in a way which ensures safe patient care. 	
<ul style="list-style-type: none"> • Be aware of relevant safety alerts and implement best practice in accordance with local policy 	
<ul style="list-style-type: none"> • Identify methods of changing your practice to reduce risk 	
<ul style="list-style-type: none"> • Report incidents in accordance with local policy 	
Patient education (including devices)	
<ul style="list-style-type: none"> • Identify and discriminate between intentional and non-intentional non-adherence 	
<ul style="list-style-type: none"> • Identify a patients' need for information about medicines 	
<ul style="list-style-type: none"> • Identify barriers to adherence 	
<ul style="list-style-type: none"> • Provide individualised information in a professional manner 	
Health promotion	
<ul style="list-style-type: none"> • Provide non-pharmacological advice on lifestyle management to support priority NHS targets, e.g. smoking cessation, reduction in alcohol intake, exercise 	

NB: The General Practice learning objectives should be met during the first 12 months of the programme

3. SPECIFIC, DISEASE BASED LEARNING OBJECTIVES NB: The learning objectives in section 3 should be met during the first 18 months of the programme

	Learning Objectives	1. Disease	2. Drug	3. Patient Factors	4. Monitoring
	Therapeutic Area	1.1 Cause 1.2 Signs & Symptoms 1.3 Prevention 1.4 Risk factors/ exacerbating factors	2.1 List the commonly used drugs , usual doses and routes of administration 2.2 Describe place in therapy of each drug wrt guidelines/ evidence 2.3 Describe the mechanism of action and pharmacokinetics of drugs used 2.4 Adverse effects: identify & advise appropriate action to manage/ prevent	3.1 Drug- drug, drug- patient e.g. drug handling in the elderly, drug- disease interactions: identify, prioritise and manage 3.2 Treatment targets: identify, prioritise, manage 3.3 Optimise patient concordance	4.1 Identify monitoring parameters 4.2 Prioritise monitoring parameters 4.3 Advise suitable actions to ensure appropriate monitoring
		LO's Achieved?	LO's Achieved?	LO's Achieved?	LO's Achieved?
A	CARDIOLOGY				
1	Acute Coronary Syndromes				
2	Atrial Fibrillation				
3	Heart Failure				
4	Hypertension				
5	Stable angina				
B	RESPIRATORY				
1	Asthma				
2	COPD				
C	SURGERY				
1	Surgical Antibiotic Prophylaxis				
2	Peri- operative management of diabetes and anticoagulation				
3	Post- operative nausea & vomiting				
4	Fluid Balance				
5	Management of NBM patient				
D	ENDOCRINOLOGY				
1	Diabetes				
E	STROKE				

Practitioner can tick or sign appropriate box to indicate Learning Outcome achieved
Clinical Services Curriculum Guide 2011, JPB DipGPP Module 1

3. SPECIFIC, DISEASE BASED LEARNING OBJECTIVES (cont.)

NB: The learning objectives in section 3 should be met during the first 18 months of the programme

Learning Objectives		1. Disease	2. Drug	3. Patient Factors	4. Monitoring
	Therapeutic Area	1.1 Cause 1.2 Signs & Symptoms 1.3 Prevention 1.4 Risk factors/ exacerbating factors	2.1 List the commonly used drugs, usual doses and routes of administration 2.2 Describe place in therapy of each drug wrt guidelines/ evidence 2.3 Describe the mechanism of action and pharmacokinetics of drugs used 2.4 Adverse effects: identify & advise appropriate action to manage/ prevent	3.1 Drug- drug, drug- patient e.g. drug handling in the elderly, drug- disease interactions: identify, prioritise and manage 3.2 Treatment targets: identify, prioritise, manage 3.3 Optimise patient concordance	4.1 Identify monitoring parameters 4.2 Prioritise monitoring parameters 4.3 Advise suitable actions to ensure appropriate monitoring
		LO's Achieved?	LO's Achieved?	LO's Achieved?	LO's Achieved?
F	CNS				
1	Pain management				
2	Parkinson's Disease				
3	Epilepsy (Status and initial management)				
4	Dementia				
5	Opioid dependence				
H	GASTROENTEROLOGY				
1	Duodenal/ Gastric Ulcer including GI bleed				
2	Alcoholic Liver Disease				
3	Inflammatory Bowel Disease				
I	VTE (including prophylaxis)				
J	INFECTIOUS DISEASE				
1	Respiratory infections i.e. CAP, HAP (& exacerbation of COPD/asthma)				
2	Cellulitis				
3	Infections of the Urinary Tract i.e. UTI & pyelonephritis				
4	Healthcare associated infection i.e. MRSA, c diff, neutropenic sepsis				

Practitioner can tick or sign appropriate box to indicate Learning Outcome achieved
Clinical Services Curriculum Guide 2011, JPB DipGPP Module 1

3. GENERAL LEVEL FRAMEWORK (GLF)

The General Level Framework was developed by CoDEG to aid development of General Practice Pharmacists and is a tool used by JPB and the NHS to assess competence of General Level Pharmacists. It has not been developed by JPB and has been used by the NHS in a number of different ways. JPB describes how the GLF is used to assess practitioners undertaking PG DipGPP but this is not the only way that the GLF can be used. Your local Trust may choose a different way of assessing you against the GLF and as long as this meets the minimum requirements for DipGPP then that is acceptable to JPB. Practitioners and Tutors should refer to the DipGPP Assessment Handbook for guidance on the minimum requirements for GLF assessment and guidance on how to use the GLF.

Practitioners should familiarise themselves with the GLF at the beginning of the diploma as their competency will be assessed against the Framework at regular intervals. In particular practitioners are directed to the introductory notes of the GLF Handbook (2nd edition) for guidance on achieving the Delivery of Patient Care, Personal, Problem Solving and Management and Organisation competencies expected of a General Level Pharmacist.

For ease of reference a grid has been developed that lists all GLF competencies (see below).

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

Appendix I List of commonly used and high risk medicines

This list includes medicines that are commonly used in clinical practice and high risk medicines that may be used less commonly. It is intended to be used as a guide to the medicines and classes that a pharmacist is expected to know about in detail as a basis for practice during the Diploma. Knowledge of these medicines may be assessed throughout the programme and will be a focus of the assessments particularly during the first 18 months of the programme. It is not an exhaustive or exclusive list. Practitioners should also be familiar with medicines they deal with in their day to day work and be able to work from first principles for medicines not on the list.

Practitioners are expected to be familiar with all aspects of the medicines and medicine groups on this list including: mechanism of action; pharmacology; pharmacokinetics; pharmaceutical aspects; adverse effects, contraindications and interactions; usual doses and routes of administration; place in therapy; and, monitoring requirements.

1. Gastrointestinal system <i>Alginates</i> <i>Aminosalicylates</i> <i>Bowel cleansing preparations</i> <i>H2-receptor antagonists</i> <i>Laxatives*</i> <i>Loperamide*</i> <i>Proton Pump Inhibitors</i>	4. Central Nervous system <i>Analgesics (non-opioid & compound)</i> <i>Antiemetics</i> <i>Anti-histamines*</i> <i>Antipsychotics (atypical & typical)</i> <i>Benzodiazepines*</i> <i>Carbamazepine</i> <i>Chlordiazepoxide</i> <i>Gabapentin</i> <i>Hyoscine*</i> <i>Lamotrigine</i> <i>Levodopa</i> <i>(co-careldopa, co-beneldopa)</i> <i>Lithium*</i> <i>MAOIs*</i> <i>Mirtazepine*</i> <i>Nicotine replacement</i> <i>Opioids</i> <i>Phenobarbitone</i> <i>Phenytoin</i> <i>Sodium valproate</i> <i>SSRIs*</i> <i>Sumatriptan*</i> <i>Tricyclic antidepressants</i>	5. Infections <i>Aciclovir*</i> <i>Aminoglycosides</i> <i>Amphotericin*</i> <i>Carbapenems</i> <i>Cephalosporins</i> <i>Co-trimoxazole*</i> <i>Doxycycline</i> <i>Imidazoles*</i> <i>Macrolides</i> <i>Metronidazole</i> <i>Nystatin*</i> <i>Penicillins</i> <i>Rifampicin*</i> <i>Quinolones</i> <i>Teicoplanin</i> <i>Trimethoprim</i> <i>Vancomycin</i>	8. Malignant disease & immunosuppression <i>Oral cytotoxics*</i> <i>Vinca alkaloids*</i>
2. Cardiovascular system <i>ACE inhibitors</i> <i>Adrenaline/</i> <i>Epinephrine*</i> <i>Aldosterone antagonists</i> <i>Amiodarone</i> <i>Angiotensin 2 receptor blockers</i> <i>Anticoagulants</i> <i>Antiplatelets</i> <i>Beta blockers</i> <i>Calcium channel blockers</i> <i>Digoxin</i> <i>Doxazosin</i> <i>Hydralazine</i> <i>Loop diuretics</i> <i>Nicorandil</i> <i>Nitrates</i> <i>Statins</i> <i>Thiazide diuretics</i>		6. Endocrine system <i>Corticosteroids</i> <i>Exenatide</i> <i>Gliclazide</i> <i>Gliptins</i> <i>Insulin</i> <i>Levothyronine & Levothyroxine*</i> <i>Metformin</i> <i>Terlipressin</i>	9. Nutrition & blood <i>Glucose</i> <i>Calcium & Vitamin D</i> <i>Ferrous sulphate</i> <i>Folic acid</i> <i>Magnesium sulphate</i> <i>Phosphate-binders</i> <i>Potassium chloride</i> <i>Sodium chloride</i> <i>Thiamine/Pabrinex®</i> <i>Vitamins</i>
3. Respiratory system <i>Antimuscarinic bronchodilators</i> <i>Beta 2 agonists</i> <i>Carbocisteine</i> <i>Inhaled steroids</i> <i>Oxygen</i> <i>Theophylline (& Aminophylline)</i>		7. Obstetrics, gynaecology and urinary tract disorders <i>Alpha 1 blockers*</i> <i>Ethinylestradiol*</i> <i>Norethisterone*</i> <i>Progesterone *</i> <i>Sildenafil*</i>	10. Musculoskeletal & joint diseases <i>Allopurinol*</i> <i>Bisphosphonates*</i> <i>NSAIDs</i>
			11. Eye <i>Beta blockers*</i> <i>Carbonic anhydrase inhibitors*</i> <i>Chloramphenicol*</i> <i>Prostaglandin analogues*</i>
			14. Immunological products & Vaccines <i>Common childhood & travel vaccinations*</i>
			15. Anaesthesia <i>Lidocaine*</i> <i>Midazolam*</i> <i>Naloxone</i> <i>Suxamethonium*</i>

Medicines marked * are those not covered by the learning outcomes in the sections 2 or 3 of the curriculum guide but of which practitioners are expected to have a working knowledge.