



RENAL

EXPERT PROFESSIONAL PRACTICE CURRICULUM

Professional curriculum to support members with
the knowledge, skills, experience and behaviours
to advance in their practice

2014

ROYAL PHARMACEUTICAL SOCIETY

FACULTY

Disclaimer

This publication is intended as a guide and may not always include all information relating to its subject matter.

You should interpret all information and advice in light of your own professional knowledge and all relevant pharmacy and healthcare literature and guidelines.

Nothing in this publication constitutes legal advice and cannot be relied upon as such.

Whilst care has been taken to ensure the accuracy of content RPSGB excludes to the fullest extent permissible by law any liability whether in contract, tort or otherwise arising from your reliance on any information or advice.

This curriculum has been produced by RPS Faculty partners to support continued advancement in all areas of pharmacy practice.

During 2014 the Curricula Panel of the RPS Faculty will continue to develop the vision for post graduate development to produce the highest quality pharmacy workforce. The Faculty will continue to work with experts and specialist groups to form new guidance for professional advancement. The layout and themes in these curricula may be subject to change. Reviews of curricula can be expected annually while the Faculty is being set up. Please check that you are using the most up to date version of the curricula on the RPS Faculty website (www.rpharms.com/faculty).

Endorsed by:



Acknowledgements

The mapping tables in this document use the Royal Pharmaceutical Society Advanced Pharmacy Framework (APF) which builds on the widely used Advanced to Consultant Level Framework (ACLF) which was developed by the Competency Development and Evaluation Group (CoDEG).

The template and content of this document was developed from the document “Adult Critical Care - Specialist Pharmacy Practice” (London: Department of Health; 2005) produced by the UKCPA Critical Care Pharmacists Group in collaboration with key department of health (DH) personnel and senior NHS pharmacists.

Primary Contributors

This document is an adaptation of the UK Renal Pharmacy Group's document: “Towards Advanced and Consultant Level Pharmacy Practice, A Competency Framework for Renal Pharmacists”, UK RPG 2009.

This was developed by a consensus group of RPG members, with advice from the UKCPA Critical Care Group and CoDEG.

It has been approved for use by all UK RPG members, the British Renal Society, all Clinical Directors of UK renal units, and the UK National Clinical Director for Renal Services.

Professional Curriculum for Advanced Pharmacy Practice in Renal

Pharmaceutical Renal Practice

This curriculum provides an overview of the knowledge and skills required to practice at advanced level in Renal pharmacy at three stages: Advanced Stage I, Advanced Stage II and Mastery, in line with the requirements of the APF.

The document is intended to be used by practitioners to support the development of their practice at advanced level in managing patients with renal disease. It encourages practitioners to think critically and to use knowledge in renal therapeutics, supporting informed decision making using knowledge from this and other related therapeutic areas to promote optimal medicines management for patients. The handbook also encourages the development of skills in informed, critically relevant, effective discussion with other health and social care practitioners, peers and managers, where appropriate, to maximise optimal medicines related care for patients.

This document is intended to be as useful to the wider community working with patients with renal disease as possible from all sectors of care. The syllabus is not intended to cover every aspect of practice and inevitably overlaps with a number of specialities. Users are encouraged to link this syllabus with others in related fields e.g. cardiology, diabetes (also known as critical adjacencies).

This curriculum will be reviewed annually as to whether any update or changes are required. Every five years there will be an external review including external experts to re-evaluate the curriculum. Feedback is encouraged to ensure that the document is error-free, fit for purpose and accurately reflects the needs of pharmacists working at the specified stages.

Knowledge, Skills, Experience and Behaviours

Practitioners will develop their portfolios linked to the APF (www.rpharms.com). The recommended knowledge, skills, experience and behaviours which practitioners require to demonstrate competence at Advanced Stage I, Advanced Stage II and Mastery stage for the Expert Professional Practice and Collaborative Working Relationships clusters of the APF in an area of advanced practice, are listed here with additional notes and specific examples for care of patients with renal disease. The APF mapping tables in this document links the recommended knowledge, skills, experience and behaviours with the relevant competency developmental descriptors. Examples of the recommended knowledge, skills, experience and behaviours are included below. For a comprehensive list see the mapping tables.

Advanced Stage I

- Demonstrates basic knowledge of the causes of renal disease, including chronic kidney disease (CKD) and acute kidney injury (AKI).
- Demonstrates a basic knowledge of the complications of renal disease.
- Demonstrates knowledge of the pharmaceutical management of CKD and AKI.
- Demonstrates competency in screening renal prescriptions.
- Demonstrates the ability to accurately assess renal function and adjust drug doses according to standard renal texts.
- Demonstrates knowledge of appropriate use and interpretation of haematological and biochemical tests and surrogate markers for monitoring disease progression.
- Demonstrates knowledge of immunosuppression regimens used in renal transplantation.
- Demonstrates knowledge and understanding of the mechanism and importance of drug interactions with renal transplant medicines.
- Demonstrates knowledge of appropriate use of biochemical and haematological tests to monitor efficacy and toxicities of immunosuppressive medicines.
- Demonstrates knowledge of common side effects of medicines used in renal patients, and adverse drug reactions, including reporting mechanisms.
- Demonstrates competency in delivering patient care under supervision to a group of renal patients.
- Demonstrates a good understanding of factors which affect adherence and ability to undertake specific patient counselling for patients starting or switching renal medicines.
- Demonstrates ability to work for short periods of time in the absence of senior support.
- Demonstrates ability to successfully negotiate with prescriber/MDT/patients re simple renal-related prescribing issues for individual patients.
- Demonstrates ability to recognise a situation outside competence and refers to supervising pharmacist (appropriate pharmaceutical problems and situations are always referred).

Advanced Stage II

- Demonstrates an advanced knowledge of the aetiology and pathophysiology and progression of a wide spectrum of renal diseases and their co-morbidities.
- Demonstrates application of advanced knowledge of renal therapeutics to ensure safe and effective prescribing to renal patients, even with drugs whose use is officially contra-indicated in patients with renal impairment.
- Demonstrates ability to identify and prioritise parameters to be monitored to ensure safety and efficacy of treatment in patients with complex multi-factorial renal disease.
- Demonstrates ability to advise on the management and/or avoidance of drug interactions, side-effects and adverse drug reactions in specific patients.
- Demonstrates ability to apply pharmacokinetic first principles to formulate a drug dose regimen adjusted for renal impairment in the absence of recommendations in standard texts.
- Demonstrates ability to advise on dosing adjustments in patients with severe renal impairment or on RRT.
- Demonstrates ability to identify and manage patients who require additional treatment support.
- Demonstrates ability to produce policies and procedures specifically for the renal pharmacy team and renal specialty.
- Demonstrates ability to act as a supplementary / independent prescriber in renal medicine.
- Demonstrates ability to be involved in the development and implementation of supplementary/independent prescribing in renal disease.
- Demonstrates participation in organisation or service wide multidisciplinary groups with respect to pharmacy issues.
- Demonstrates ability to persuade or influence the renal team / pharmacy team with regard to complex cases, research, guidelines and protocols.
- Demonstrates the ability to persuade or influence staff with respect to organisational change research guidelines and protocols.
- Demonstrates ability to communicate complex clinical information to patients/carers or junior clinical staff where the evidence base is lacking or conflicting or based on opinion
- Demonstrates ability to successfully negotiate complex renal-related treatment issues with the prescriber or MDT and patients.

Mastery

- Demonstrates ability to identify knowledge gaps and advance the knowledge base in renal medicine by being actively involved in identifying and answering research questions through leading and participating in research and audit and publishing findings.
- Demonstrates ability to identify training needs for pharmacy staff and other healthcare professionals to facilitate medicines optimisation for people with renal disease.
- Demonstrates ability to advise on workforce planning and strategic direction of specialist renal pharmacy services.
- Demonstrates ability to advise on medicines optimisation in patients with renal disease, including procurement, entry of new drugs and treatment guidelines at a network/regional/national level.
- Demonstrates ability to provide expert advice to external agencies and/or professionals on complex and novel situations.
- Demonstrates the ability to lead on Trust wide issues related to renal patient care, and be responsible for the application of national guidelines within the Trust.
- Demonstrates ability to present complex, sensitive or contentious information to large groups of patients, clinicians and senior managers.
- Demonstrates ability to communicate appropriately to gain cooperation and /or influence large groups of patients, and managers and healthcare professionals outside the organisation.
- Demonstrates ability to use clear concise appropriate and effective written and oral communication skills to policy makers, and healthcare professionals at a national level.
- Demonstrates ability to persuade, motivate or influence the multidisciplinary team, organisational development strategy and course of action over a network or equivalent
- Demonstrates ability to negotiate issues on an organisation-wide, network (or equivalent) or (inter) national basis.
- Demonstrates ability to lead a local network group or equivalent.
- Demonstrates participation in or leads (inter) national renal or pharmacy groups, and contributes to national guidelines.
- Is a member of UKRPG executive board or leader of one of its sub-groups.
- Regularly provides advice via the UKRPG discussion forum.
- Demonstrates ability to engage stakeholders to develop and improve services.
- Demonstrates ability to present at senior Trust level, regional and (inter) national fora.
- Demonstrates ability to work across boundaries to build relationships and share information, plans and resources.
- Sought as an opinion leader both within the organisation and in the external environment.
- Demonstrates ability to share expertise with the wider community of health and social care professionals working in renal medicine.

Resources for Curriculum Development

Useful Websites

- NICE Technology Appraisal 85: Renal Transplantation - Immuno-Suppressive Regimens (adults) (review): Guidance (www.nice.org.uk/TA085guidance)
- Standards for Solid Organ Transplantation in the United Kingdom. British Transplantation Society (www.bts.org.uk/transplantation/standards-and-guidelines)
- International Society of Peritoneal Dialysis (ISPD) website (multiple guidelines) (www.ispd.org)
- National Service Framework for Renal Services: Part One - Dialysis and transplantation (www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4070359)
- National Service Framework for Renal Services - Part Two: Chronic kidney disease, acute renal failure and end of life care (www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4101902)
- National Kidney Advanced Stage I. Kidney Disease Outcome Quality Initiatives (KDOQI) (www.kidney.org/PROFESSIONALS/kdoqi/guidelines.cfm)
- The Renal Association Clinical Practice Guidelines. 4th edn. (www.renal.org/pages/pages/guidelines/current.php)
- Including, Chronic kidney disease, Complications, Blood-borne viruses, Haemodialysis, Peritoneal Dialysis, Peritoneal Access, Assessment for Transplantation, Acute Renal Failure.
- Early Identification and Management of Chronic Kidney Disease in Adults in Primary and Secondary Care, NICE (www.nice.org.uk/Guidance/CG73)
- Anaemia Management in People with Chronic Kidney Disease (CKD), NICE CGI 14, 2011 (<http://www.nice.org.uk/nicemedia/live/13329/52853/52853.pdf>)
- Cinacalcet for the Treatment of Secondary Hyperparathyroidism in Patients with End-stage Renal Disease on Maintenance Dialysis Therapy, NICE (www.nice.org.uk/TA117)
- Hyperphosphataemia in Chronic Kidney Disease, NICE CGI 157 2013 (<http://guidance.nice.org.uk/CG157>)
- Lewington A, Kanagasundaram S. Acute Kidney Injury. Renal Association Guidelines, 2011. (<http://www.renal.org/Clinical/GuidelinesSection/AcuteKidneyInjury.aspx>)

Textbooks

- Introduction to Renal Therapeutics
Editors Caroline Ashley, Clare Morlidge
Pharmaceutical Press, Jan 2008
ISBN-10 0853696888
ISBN-13 978-0853696889
- The Renal Drug Handbook 3rd Ed
Caroline Ashley, Aileen Currie
Radcliffe Publishing Ltd, Nov 2008
ISBN-10 1846192986
ISBN-13 978-1846192982
- Drug Prescribing in Renal Failure, 5th Ed
G.M. Aronoff
American College of Physicians, July 2007
ISBN-10 1930513763
ISBN-13 978-193051376

- Handbook of Dialysis, 4th Ed
Editor John T. Daugirdas, Peter G. Blake, Todd S. Ing
Lippincott Williams and Wilkins, Dec 2006
ISBN-10 0781752531
ISBN-13 978-0781752534
- Handbook of Kidney Transplantation, 5th Ed
Gabriel M. Danovitch
Lippincott Williams and Wilkins, Nov 2009
ISBN-10 0781793742
ISBN-13 978-0781793742
- Renal Association. Treatment of Adults and Children with Renal Failure: Standards and Audit Measures, 3rd edn.
London: Lavenham Press, 2002.

International Guidance

- National Kidney Advanced Stage I. K/DOQI Clinical Practice Guidelines for Bone Metabolism and Disease in Chronic Kidney Disease.
(www.kidney.org/professionals/kdoqi/guidelines_bone/index.htm)
- KDIGO Clinical Practice Guidelines for the Diagnosis, Evaluation, Prevention, and Treatment of Chronic Kidney Disease-Mineral and Bone Disorder (CKD-MBD)
(www.kdigo.org/pdf/KDIGO%20CKD-MBD%20GL%20KI%20Suppl%20113.pdf)
- KDIGO Clinical Practice Guideline for the Care of Kidney Transplant Recipients
(www.kdigo.org/clinical_practice_guidelines/pdf/KITxpGL_summary.pdf)

Supporting References and External Resources

- ISPD Guidelines/Recommendations. Peritoneal Dialysis-Related Infections.
Recommendations: 2010 Update
Peritoneal Dialysis International, Vol. 30, pp. 393–423
doi:10.3747/pdi.2010.00049
- Medicine 2007 Vol 35 No.s 7, 8 & 9.
 - Vol 35:7 - Laboratory investigations, Imaging & biopsy, Genetic disorders, Drugs & the kidney, hypertension & renal disease.
 - Vol 35:8 - Obstruction & infection, Acute renal failure, Chronic renal failure, Haemodialysis, Peritoneal dialysis.
 - Vol 35:9 - Renal transplantation, Glomerular disease, Tubulo-interstitial disorders, Systemic disease & the kidney, Pregnancy.

APF Mapping Tables

The following tables list the knowledge, skills, experience and behaviours recommended to demonstrate the APF competencies for the Expert Professional Practice and Building Working Relationship clusters mapped against the relevant APF competency developmental descriptors. It is intended primarily to support practitioners to develop their practice, but may be useful for portfolio preparation. All statements relate to the practitioner's area of practice speciality.

The competencies listed for "Advanced Stage I", "Advanced Stage II" and "Mastery" are additive, i.e. those at "Advanced Stage II" build on the competencies established in "Advanced Stage I". Practitioners are expected to demonstrate "Advanced Stage I" first before moving on to "Advanced Stage II". Those wishing to demonstrate "Advanced Stage II" will usually be expected to have demonstrated "Advanced Stage I" previously. Those wishing to demonstrate "Mastery" will usually be expected to have demonstrated "Advanced Stage II" previously.

A pharmacist starting to specialise in an area of Expert Professional Practice might be expected to be working towards attaining competencies at Advanced Stage I. A practitioner having attained Advanced Stage I in an area of Expert Professional Practice might be expected to be working towards attaining competencies at Advanced Stage II.

At Advanced Stage I practitioners are expected to build on the General Level Framework competencies and (for the relevant competency descriptors) to demonstrate experience of caring for patients with disorders, pharmaceutical care issues and co-morbidities that are commonly found in Renal.

At Advanced Stage II practitioners are expected to build on Advanced Stage I competencies and (for the relevant competency descriptors) to demonstrate experience of caring for patients with complex co-morbidities or pharmaceutical care issues or those with more specialist conditions in Renal.

At Mastery Level practitioners are expected to build on Advanced Stage II competencies and (for the relevant competency descriptors) to demonstrate experience of caring for patients with complex co-morbidities or pharmaceutical care issues, or those with more specialist conditions in Renal.

Expert Professional Practice – Expert Skills and Knowledge (Cluster 1.1)

Improving standards of pharmaceutical care for patients.

1.1 EXPERT SKILLS AND KNOWLEDGE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates general pharmaceutical skills and knowledge in core areas.</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas.</p>	<p>Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s).</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review in-depth/complex pharmaceutical care programmes for patients in defined area(s).</p>	<p>Advances the knowledge base in defined area(s).</p> <p>In addition for patient focussed roles: Advances in-depth/complex pharmaceutical care programmes for patients.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Application of core specialist knowledge of renal medicine and common co-morbidities in the setting of a non renal specialist ward (including: aetiology, physiology, common signs and symptoms, epidemiology, risk factors).</p> <p>Application of core specialist knowledge of medicines used in the management of renal disease (including: place in therapy, mechanism of action, indications, common adverse effects and drug interactions, and precautions).</p> <p>Application of core specialist knowledge in renal medicine to ensure safe prescribing in all patients with renal impairment.</p> <p>Application of core specialist knowledge in the management of renal pharmaceutical issues.</p>	<p>Application of advanced knowledge of renal medicine and co-morbidities and core specialist knowledge of RRT (Renal Replacement Therapies) including haemodialysis and peritoneal dialysis, stage 4-5 CKD, AKI (Acute Kidney Injury), complex renal diseases eg autoimmune kidney disease, and Renal Transplantation.</p> <p>Application of advanced knowledge and understanding of drugs, including high-risk drugs, unlicensed drugs and off-label use of drugs.</p> <p>Application of advanced knowledge of drugs used in patients on RRT, with AKI, and Renal Transplantation.</p> <p>Application of advanced knowledge for the therapeutic management of patients with complex co-morbidities and high risk factors, and to ensure safe prescribing for these patients.</p>	<p>Identifies knowledge gaps and advances the knowledge base in renal medicine.</p> <p>Actively involved in identifying and answering research questions through leading and participating in research and audit and publishing findings.</p> <p>Identifies training needs for pharmacy staff and other healthcare professionals to facilitate medicines optimisation for people with renal disease.</p>

Expert Professional Practice – Expert Skills and Knowledge (Cluster I.1)

Improving standards of pharmaceutical care for patients.

I.1 EXPERT SKILLS AND KNOWLEDGE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates general pharmaceutical skills and knowledge in core areas.</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas.</p>	<p>Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s).</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review in-depth/complex pharmaceutical care programmes for patients in defined area(s).</p>	<p>Advances the knowledge base in defined area(s).</p> <p>In addition for patient focussed roles: Advances in-depth/complex pharmaceutical care programmes for patients.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to develop and implement plans for the pharmaceutical care of patients with renal impairment in a non-specialist renal environment, eg. stages 1-3 CKD (Chronic Kidney Disease) patients on a general medical ward.</p> <p>Able to identify patients with complex co-morbidities, pharmaceutical needs, interface or social issues that may impact on pharmaceutical care, and ensures that appropriate pharmaceutical care is provided (including referring where appropriate).</p> <p>Able to accurately assess renal function.</p> <p>Able to recognise, recommend and review appropriate monitoring of renal disease and medicines for the pharmaceutical care of renal patients.</p>	<p>Able to identify, manage and advise on complex renal pharmaceutical care issues.</p> <p>Able to develop and implement, and support/train others to develop and implement plans for the pharmaceutical care of patients with complex pharmaceutical care issues and those with more complex renal conditions.</p> <p>Actively identifies and manages patients with complex co-morbidities, pharmaceutical needs, interface or social issues that may impact on pharmaceutical care.</p> <p>Able to advise on the appropriate monitoring of disorders and medicines for patients with complex pharmaceutical care needs.</p>	

Expert Professional Practice – Expert Skills and Knowledge (Cluster I.1)

Improving standards of pharmaceutical care for patients.

I.1 EXPERT SKILLS AND KNOWLEDGE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates general pharmaceutical skills and knowledge in core areas.</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas.</p>	<p>Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s).</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review in-depth/complex pharmaceutical care programmes for patients in defined area(s).</p>	<p>Advances the knowledge base in defined area(s).</p> <p>In addition for patient focussed roles: Advances in-depth/complex pharmaceutical care programmes for patients.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to interpret and use common lab tests and/or disease markers for the pharmaceutical care of renal patients.</p> <p>Able to carry out medication review and develop and implement a medicines management plan for patients with renal disease and renal pharmaceutical needs. Able to make recommendations on the pharmaceutical care of renal patients based on the evidence-base and/or best practice.</p> <p>Able to describe the main principles of the relevant key papers and national documents.</p> <p>Able to follow relevant policies and local and national guidance.</p> <p>Able to advise others in the team on the management of patients with renal pharmaceutical care issues.</p>	<p>Able to interpret and use complex/specialist lab tests and/or disease markers for the pharmaceutical care of renal patients.</p> <p>Able to carry out medication review and develop and implement a medicines management plan for patients with complex co-morbidities, high risk renal disorders and/or complex pharmaceutical needs.</p> <p>Able to make recommendations on the pharmaceutical care of complex renal patients based on the evidence-base and/or best practice. (also see 3 below)</p> <p>Applies the main principles of key papers, policies, national documents, and local and national guidance to the care of patients with complex co-morbidities, high risk renal disorders and/or complex pharmaceutical needs.</p>	

Expert Professional Practice – Expert Skills and Knowledge (Cluster I.1)

Improving standards of pharmaceutical care for patients.

I.1 EXPERT SKILLS AND KNOWLEDGE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates general pharmaceutical skills and knowledge in core areas.</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas.</p>	<p>Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s).</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review in-depth/complex pharmaceutical care programmes for patients in defined area(s).</p>	<p>Advances the knowledge base in defined area(s).</p> <p>In addition for patient focussed roles: Advances in-depth/complex pharmaceutical care programmes for patients.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to describe and use relevant resources for the pharmaceutical care of renal patients.</p> <p>Able to apply pharmacokinetic and pharmacodynamic principles to ensure safe and effective prescribing.</p> <p>Able to consult with, educate and advise patients, carers, pharmacy staff, students, medical staff, nursing staff and other allied healthcare professionals (AHPs) effectively on renal pharmaceutical care issues and related relevant healthcare issues within the Trust.</p> <p>Able to support other staff in core specialist aspects of renal pharmaceutical and related care.</p> <p>Able to describe the structure of the service, the system of care, and the roles of the healthcare professionals and other relevant teams, disciplines or agencies involved in patient care.</p>	<p>Advises others in the team on the management of patients with complex pharmaceutical care issues.</p> <p>Able to advise on the choice and use of relevant specialist resources to resolve complex pharmaceutical care issues.</p> <p>Applies and advises on pharmacokinetic and pharmacodynamic principles to ensure safe and effective prescribing.</p> <p>Able to consult with, educate and advise patients, carers, pharmacy staff, students, medical staff, nursing staff and other allied healthcare professionals (AHPs) effectively on complex pharmaceutical care issues and related relevant healthcare issues within and outside the Trust.</p> <p>Able to support other staff in advanced aspects of specialist renal pharmaceutical and related care.</p>	

Expert Professional Practice – Expert Skills and Knowledge (Cluster I.1)

Improving standards of pharmaceutical care for patients.

I.1 EXPERT SKILLS AND KNOWLEDGE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates general pharmaceutical skills and knowledge in core areas.</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas.</p>	<p>Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s).</p> <p>In addition for patient focussed roles: Is able to plan, manage, monitor, advise and review in-depth/complex pharmaceutical care programmes for patients in defined area(s).</p>	<p>Advances the knowledge base in defined area(s).</p> <p>In addition for patient focussed roles: Advances in-depth/complex pharmaceutical care programmes for patients.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to apply and comply with the relevant legal, ethical, professional and organisational policies and procedures and codes of conduct issues that have implications for the pharmaceutical care of renal patients.</p> <p>Able to apply pharmacoeconomic principles and support drug expenditure analysis work.</p>	<p>Able to influence the structure of the service, the system of care, and the roles of the healthcare professionals and other relevant teams, disciplines or agencies involved in patient care.</p> <p>Able to advise on the relevant legal, ethical, professional and organisational policies and procedures and codes of conduct issues that have implications for the pharmaceutical care of patients.</p> <p>Interprets, undertakes and communicates drug expenditure analysis and advises on relevant pharmacoeconomic issues.</p>	

Expert Professional Practice – Delivery of Professional Expertise (Cluster I.2)

Improving standards of pharmaceutical care for patients.

I.2 DELIVERY OF PROFESSIONAL EXPERTISE	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors	Demonstrates accountability for delivering professional expertise and direct service provision as an individual.	Demonstrates accountability for the delivery of professional services and expertise via a team or directly to groups of patients/clients/users.	<p>Demonstrates accountability for the delivery of professional expertise at a defined higher level.</p> <p>May include providing expertise and service delivery nationally or at a strategic level.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to provide a clinical pharmacy service and deliver effective pharmaceutical care to patients with renal impairment (including those on RRT and patients with AKI).</p> <p>Monitors prescribing quality and addresses and resolves issues identified with the appropriate member(s) of the MDT.</p> <p>Contributes to service development, clinical audit and evaluation of the pharmacy service.</p> <p>Ensures that appropriate patient documentation is maintained.</p>	<p>Responsible for the provision of a clinical pharmacy service and the delivery of effective pharmaceutical care to renal patients with complex co-morbidities or pharmaceutical needs.</p> <p>Monitors prescribing quality and addresses and resolves any issues identified within the locality.</p> <p>Initiates and leads service development, clinical audit and evaluation of the renal pharmacy service.</p> <p>Actively involved in the development of medicines-related aspects of patient documentation systems.</p> <p>Advises on and manages the entry of new drugs.</p>	<p>Advises on workforce planning and strategic direction of specialist renal pharmacy services</p> <p>Advises on medicines optimisation in patients with renal disease, including procurement, entry of new drugs and treatment guidelines at a network/regional/national level.</p>

Expert Professional Practice – Reasoning and Judgement (Cluster 1.3)

Improving standards of pharmaceutical care for patients.

I.3 REASONING AND JUDGEMENT	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
<p>APF competency developmental descriptors</p>	<p>Demonstrates ability to use skills in a range of routine situations requiring analysis or comparison of a range of options.</p> <p>Recognises priorities when problem-solving and identifies deviations from the normal pattern.</p>	<p>Demonstrates ability to use skills to make decisions in complex situations where there are several factors that require analysis, interpretation and comparison.</p> <p>Demonstrates an ability to see situations holistically.</p>	<p>Demonstrates ability to use skills to manage difficult and dynamic situations.</p> <p>Demonstrates ability to make decisions in the absence of evidence or data or when there is conflicting evidence or data.</p>
<p>Recommended knowledge, skills, experience and behaviours</p>	<p>Able to recognise and resolve basic problems.</p> <p>Monitors patient visits under supervision/mentorship.</p> <p>Able to recommend justifiable courses of action.</p> <p>Demonstrates accurate reasoning.</p> <p>Able to make decisions with limited information.</p> <p>Able to critically appraise and interpret published papers.</p> <p>Able to make decisions in a timely manner.</p> <p>Able to prioritise problems.</p> <p>Able to assess prescriptions or work for adherence to local/national guidelines.</p> <p>Recognises own limitations and able to refer appropriately.</p>	<p>Recognises, evaluates and resolves complex problems.</p> <p>Able to appraise information, make an informed decision with the evidence available and be able to justify/defend the decision to others, including in situations where evidence is lacking.</p> <p>Recognises limitations of supporting data.</p> <p>Able to present and explain a critical appraisal of published papers.</p> <p>Is aware of the limitations of some research to non-research settings.</p> <p>Demonstrates an ability to see situations holistically.</p> <p>Able to take into consideration different values and views when making decisions.</p> <p>Able to refer appropriately to others within and outside own team.</p>	<p>Provides expert advice to external agencies and/or professionals on complex and novel situations</p>

Expert Professional Practice – Professional Autonomy (Cluster I.4)

Improving standards of pharmaceutical care for patients.

I.4 PROFESSIONAL AUTONOMY	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors	Is able to follow legal, ethical, professional and organisational policies/procedures and codes of conduct.	Is able to take action based on own interpretation of broad professional policies/procedures where necessary.	Is able to take action based on own interpretation of broad professional policies/procedures where necessary.
Recommended knowledge, skills, experience and behaviours	<p>Able to follow organisation guidance related to the local renal service.</p> <p>Follows legal, ethical and organisational policy and procedures and codes of conduct.</p> <p>Contributes to the development of policies and procedures specifically for the local service, under supervision.</p> <p>Able to identify areas of practice in requiring pharmaceutical input and development.</p> <p>Able to work for short periods of time in the absence of senior support.</p> <p>Demonstrates awareness and knowledge about issues relating to record keeping, confidentiality and communication (including the Data Protection Act, and Caldicott guidance).</p> <p>Demonstrates awareness and knowledge about legislation pertaining to consent.</p> <p>Demonstrates awareness and application of cultural and gender issues in specialist area, application of the principles and practices of anti-discriminatory practice."</p>	<p>Develops policies, procedures and treatment guidelines specifically for the local renal service.</p> <p>Involved in the development and implementation supplementary/ independent prescribing in organisations where this is being developed.</p> <p>Participates in organisation or service -wide multidisciplinary groups with respect to pharmacy issues.</p> <p>Able to work for extended periods of time in the absence of senior support.</p>	<p>Leads on Trust wide issues related to renal patient care.</p> <p>Responsible for the application of national guidelines within the Trust.</p>

Expert Professional Practice – Professional Autonomy (Cluster I.4)

Improving standards of pharmaceutical care for patients.

I.4 PROFESSIONAL AUTONOMY	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors	Is able to follow legal, ethical, professional and organisational policies/procedures and codes of conduct.	Is able to take action based on own interpretation of broad professional policies/procedures where necessary.	Is able to take action based on own interpretation of broad professional policies/procedures where necessary.
Recommended knowledge, skills, experience and behaviours	<p>Understands and adheres to legal frameworks including the Mental Capacity Act, Medicines Act, Controlled Drugs legislation etc.</p> <p>Understands the broad remit and powers of the mental capacity act (MCA)</p> <p>Demonstrates an understanding of the legal requirements surrounding the use of medicines as detailed in the MCA.</p> <p>Demonstrates an understanding of the issues involved, and legal stance of covert administration.</p>		

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others.

Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION	ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors	<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	<p>Able to use clear, concise, appropriate and effective written and oral communication skills to a range of patients, carers and staff from within the Trust.</p> <p>Able to communicate effectively where the content of the discussion is explicitly defined.</p> <p>Able to communicate effectively with individual patients, carers, colleagues and clinicians in a form and manner that is consistent with the individual level of understanding, culture and background.</p> <p>Able to recognise barriers to effective communication and modify communication accordingly.</p>	<p>Able to use clear, concise, appropriate and effective written and oral communication skills, to a range of patients, carers and staff from within and outside the Trust.</p> <p>Able to communicate effectively where the content of the discussion is based on opinion.</p> <p>Able to communicate effectively with groups of patients, carers, staff, colleagues and senior managers in a form and manner that is consistent with the level of understanding, culture and background of the group.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of patients, clinicians and senior managers.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p> <p>Able to use clear concise appropriate and effective written and oral communication skills to policy makers, and healthcare professionals at a national level.</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others.
Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Persuade	<p>Able to persuade others within the MDT about individual episodes of care.</p> <p>Able to engage patients in meaningful discussions about medicines, and compliance.</p>	<p>Able to persuade or influence the MDT regarding individual complex clinical or technical issues.</p> <p>Able to engage patients in meaningful discussions about medicines, and compliance.</p> <p>Able to persuade or influence staff with respect to organisational change, research, guidelines and protocols, in line with medicines management agenda.</p>	<p>Able to persuade or influence the multidisciplinary team, organisational development strategy and course of action in extremely complex cases.</p>
	Motivate	<p>Demonstrates self-motivation.</p> <p>Able to motivate other staff in the pharmacy team.</p>	<p>Motivates members of the pharmacy team (e.g. to follow a guideline, collect data, to improve the quality of care, to identify areas of practice for development and improvement).</p>	<p>Motivates multidisciplinary team over a network or equivalent</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others.
Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Negotiate	<p>Negotiates on pharmaceutical care or technical issues for individual patients.</p> <p>Negotiates issues about teamwork and workloads (e.g. rotas, staffing, training requirements).</p> <p>Negotiates simple treatment issues with patients & MDT</p>	<p>Negotiates on pharmaceutical care or technical issues for groups of patients.</p> <p>Negotiates issues between the speciality team and pharmacy.</p> <p>Able to negotiate on financial issues.</p> <p>Able to negotiate complex treatment issues with patients and MDT.</p>	<p>Negotiates issues on an organisation-wide, network (or equivalent) or (inter) national basis.</p>
	Empathise/ Provide reassurance	<p>Communicates in an empathetic and respectful manner with patients, carers and staff. Uses appropriate verbal and body language.</p> <p>Able to communicate sensitive information and advice to patients in a professional manner and to acknowledge boundaries in behaviour.</p> <p>Able to reassure individuals appropriately.</p>	<p>Communicates in an empathetic and respectful manner with patients, carers and staff in complex situations. Uses appropriate verbal and body language.</p> <p>Manages, mentors and supervises staff in an empathetic manner.</p> <p>Able to reassure groups appropriately.</p>	<p>Gives appropriate feedback and acts as a role model, helping staff to communicate in an empathetic and respectful manner (including the appropriate use of verbal and body language).</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others. Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Listen	<p>Able to effectively listen and respond to patients, carers, colleagues and members of the MDT.</p>	<p>Demonstrates effective listening skills with patients, carers, visitors, members of the MDT and/or colleagues.</p> <p>Able to effectively listen to groups of patients, carers, visitors, members of the MDT and/or colleagues.</p>	<p>Trains pharmacy staff in listening skills.</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others. Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Influence	<p>Able to use appropriate communication to gain the co—operation of individual patients, colleagues and clinicians.</p> <p>Able to positively influence junior staff within the local clinical pharmacy team to develop and deliver a higher quality of service.</p>	<p>Able to use appropriately selected communication skills to gain the co—operation of small groups of patients, colleagues, senior clinicians and managers within the organisation.</p> <p>Able to positively influence staff delivering the local clinical services. To increase the MDTs awareness of medicine management issues.</p> <p>Demonstrates assertive behaviour.</p> <p>Able to advocate for others.</p> <p>Proactively influences developments in pharmacy services to meet the needs of patients.</p>	<p>Able to communicate appropriately to gain cooperation and /or influence large groups of patients, and managers and healthcare professionals outside the organisation.</p> <p>Able to influence senior clinicians and managers within the organisation in a hostile, antagonistic or highly emotive atmosphere.</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others.
Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Networking skills	<p>Is a member of the relevant national clinical speciality group or other local/national associations that provide an appropriate level of support.</p> <p>Is a fully integrated member of the local MDT.</p> <p>Attends relevant external/educational meetings.</p> <p>Able to network effectively.</p>	<p>Is a participating member of the relevant national clinical speciality group.</p> <p>Participates in local network groups (or equivalent).</p> <p>Participating member of working groups within the local service.</p> <p>Attends relevant national/international conferences.</p>	<p>Leads a local network group or equivalent.</p> <p>Participates in / leads (inter) national renal or pharmacy groups.</p> <p>Represents renal pharmacy at national Specialised Services Commissioning level e.g. Clinical Reference Group (CRG)</p> <p>Member of UKRPG executive board or leads one of the sub-groups.</p> <p>Regularly provides advice via the UKRPG discussion forum.</p> <p>Able to engage stakeholders to develop and improve services.</p>

Collaborative Working Relationships – Communication (Cluster 2.1)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others. Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.1 COMMUNICATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, senior and peer colleagues, and other professionals where possible).</p> <p>Demonstrates ability to communicate where the content of the discussion is explicitly defined.</p>	<p>Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation.</p> <p>Demonstrates ability to communicate where the content of the discussion is based on professional opinion.</p>	<p>Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders.</p> <p>Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.</p>
Recommended knowledge, skills, experience and behaviours	Presentation skills	<p>Presents effectively to pharmacy and the multi-disciplinary team (MDT).</p> <p>Communication is always clear, precise and appropriate.</p>	<p>Presents effectively to senior MDT including consultant level.</p> <p>Presents effectively at clinical speciality group meetings.</p>	<p>Presents at senior Trust level, regional and (inter) national fora.</p>

Collaborative Working Relationships – Teamwork and Consultation (Cluster 2.2)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others. Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.2 TEAMWORK AND CONSULTATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates ability to work as a member of a team.</p> <p>Recognises personal limitations and refers to more appropriate colleague(s) when necessary.</p>	<p>Demonstrates ability to work as an acknowledged member of a multidisciplinary team.</p> <p>Consulted within the organisation for advice which requires in-depth professional expertise.</p>	<p>Works across boundaries to build relationships and share information, plans and resources.</p> <p>Sought as an opinion leader both within the organisation and in the external environment.</p>
Recommended knowledge, skills, experience and behaviours	Generic knowledge, skills, experience and behaviours	<p>Able to work effectively as part of clinical speciality team, and within the MDT.</p> <p>Able to explain the roles of the members of the MDT, and values other members of the team.</p> <p>Recognises situations outside of own experience or competence and effectively refers to a more appropriate member of the team.</p> <p>Demonstrates initiative in own work.</p> <p>Demonstrates ability to effectively delegate work/tasks to other members of the team and is willing to take on work/tasks delegated by senior staff.</p>	<p>Demonstrates the ability to work as an acknowledged member of an MDT, and as part of a clinical pharmacy team.</p> <p>Shares expertise with both pharmacy and clinical speciality colleagues.</p> <p>Recognition of expertise by the local renal service.</p> <p>Participates in MDT working groups looking into service development or clinical guidelines development.</p>	<p>Works across boundaries to build relationships and share information, plans and resources.</p> <p>Sought as an opinion leader both within the organisation and in the external environment.</p>
	Teamwork			<p>Shares expertise with the wider community of health and social care professionals working in renal medicine.</p>

Collaborative Working Relationships – Teamwork and Consultation (Cluster 2.2)

Is able to communicate, establish and maintain professionally-driven working relationships and gain the co-operation of others.

Including ability to: Persuade; Motivate; Negotiate; Empathise; Provide reassurance; Listen; Influence and Networking skills; Presentation skills.

2.2 TEAMWORK AND CONSULTATION		ADVANCED STAGE I	ADVANCED STAGE II	MASTERY
APF competency developmental descriptors		<p>Demonstrates ability to work as a member of a team.</p> <p>Recognises personal limitations and refers to more appropriate colleague(s) when necessary.</p>	<p>Demonstrates ability to work as an acknowledged member of a multidisciplinary team.</p> <p>Consulted within the organisation for advice which requires in-depth professional expertise.</p>	<p>Works across boundaries to build relationships and share information, plans and resources.</p> <p>Sought as an opinion leader both within the organisation and in the external environment.</p>
Recommended knowledge, skills, experience and behaviours	Consultation	<p>Recognises a situation outside competence and refers to supervising pharmacist (appropriate pharmaceutical problems are always appropriately referred).</p>	<p>Receives and effectively responds to requests for advice in renal pharmacy from within the Trust renal unit, teaches junior staff to do so.</p> <p>Actively participates in multi-disciplinary task forces / service developments.</p> <p>Participates in clinical speciality group meetings (including networks).</p>	<p>Contributes to national guidelines.</p>

Syllabus for Renal Pharmacists

This syllabus is a recommended list of the specific elements of pharmaceutical and related care that a practitioner developing towards advanced and consultant level will need to know about and apply in their practice in Renal.

These examples are not about non-medical prescribing or administration of medicines, which falls outside the scope of this document. Their purpose is to be used as an outline intended to guide practice rather than to be a prescriptive list that has to be adhered to in all cases.

Advanced Stage I

Scope

Entry Point: Diploma in General Practice Pharmacy and Statement of Completion of General Level Framework (e.g. Band 6 (DipGPP)) or appropriate proof of equivalent qualification and practice.

Completion Point: Statement of Completion of Advanced Stage I competencies (including application of knowledge during experience in the defined area of practice).

Description

Whilst working towards Advanced Stage I the aim is for practitioners to develop and deliver competent clinical care with a focus on patients with renal disease.

The individual works towards becoming competent at delivering a clinical pharmacy service to patients with common disorders in Renal through experience of delivering a service to these patients.

Advanced Stage II

Scope

Entry Point: Statement of Completion of Advanced Stage I competencies with (including application of knowledge during experience in the defined area of practice).

Completion Point: Statement of Completion of Advanced Stage II competencies (including application of advanced knowledge during experience working in the Renal unit or similar areas).

Description

Whilst working towards Advanced Stage II the aim is for practitioners to continue to develop advanced knowledge and skills in order to deliver good quality clinical care to the various groups of patients with renal disease. The practitioner is expected to be an integrated member of the wider multi-professional team and as such works alongside other professionals to achieve the aims of the team, leading where appropriate.

Mastery

Scope

Entry Point: Statement of Completion of Advanced Stage II competencies with (including application of knowledge during experience in the defined area of Renal therapeutics).

Completion Point: Statement of Completion of Mastery competencies (including application of advanced knowledge during experience in the Renal unit or similar areas).

Description

Whilst working towards Mastery the aim is for practitioners to continue to develop advanced knowledge and skills in order to deliver good quality clinical care to the various groups of patients with renal disease. The practitioner is expected to be an integrated member of the wider multi-professional team and as such works alongside other professionals to achieve the aims of the team, leading where appropriate.

The following tables are the syllabus for Renal. For illustrative purposes the syllabus has been laid out here in BNF order, with additional categories. Categories have been left blank where there are no syllabus items. A group may decide that another way of ordering the syllabus is more relevant to their expert practice, for example according to the medicines use process or a medicines pathway. The final column of the table shows whether the syllabus item is expected at Advanced Stage I, Advanced Stage II or Mastery stage.

It is acknowledged that practitioners may have already covered some of this syllabus at general level. Practitioners are reminded that a piece of evidence of a specific knowledge should not be resubmitted to achieve the requirements for another award as credit can only be awarded once for each piece of evidence. However, knowledge gained previously could be used in conjunction with experience to develop and demonstrate competency at Advanced Stage I, Advanced Stage II or Mastery stage of the APF.

Specialist knowledge is defined here as knowledge that is specific to Renal therapeutics, and is not generally used outside this area. Generalist knowledge is defined here as common knowledge that may be pertinent to other areas of practice outside Renal medicine.

- 1 Gastrointestinal System
- 2 Cardiovascular System
- 3 Respiratory System
- 4 Central Nervous System
- 5 Infections
- 6 Endocrine System
- 7 Obstetrics, Gynaecology and Urinary-Tract Disorders
- 8 Malignant disease and Immunosuppression
- 9 Nutrition and Blood
- 10 Musculoskeletal and Joint Diseases
- 11 Eye
- 12 Ear, nose and oropharynx
- 13 Skin
- 14 Immunological Products and Vaccines
- 15 Anaesthesia
- 16 Liver Disease
- 17 Renal Impairment
- 18 Pregnancy
- 19 Breast-Feeding
- 20 Older People
- 21 HIV
- 22 Toxicology
- 23 Parenteral Therapy
- 24 Paediatrics
- 25 Palliative and End of Life Care
- 26 Clinical Trials

- 27 Other issues in Renal Medicine

1 Gastrointestinal System		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the risk factors for constipation, including drug-induced.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for constipation.	G	Adv II
Understands the risk factors for diarrhoea, including drug-induced.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for diarrhoea.	G	Adv II
Understands the risk factors for nausea and vomiting, including drug-induced.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of antiemetics.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of PUD, H. pylori eradication & dyspepsia.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for PUD, H. pylori eradication & dyspepsia.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of an acute GI bleed.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for an acute GI bleed.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of stress ulceration.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for stress ulcer prophylaxis.	G	Adv II
Understands the pharmaceutical issues around administration of medication through nasogastric and percutaneous endoscopicgastrostomy (PEG) tubes.	S	Adv I

2 Cardiovascular System		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the basic pathophysiology and management options for peripheral oedema.	S	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for fluid overload e.g. peripheral oedema, pulmonary oedema.	S	Adv I
Understands the mechanism of action, characteristics and use of diuretics.	S	Adv I
Understands how to calculate or estimate a patient's cardiovascular disease risk.	S	Adv I
Understands the basic pathophysiology and risk factors for the development of HF.	S	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for HF, including the evidence base for patients with CKD 4-5.	S	Adv I

Understands the basic pathophysiology and risk factors for the development of hypertension	S	Adv II
Understands the long-term risks of developing untreated hypertension.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for hypertension, including the evidence base and national guidance.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of IHD (angina, NSTEMI, STEMI).	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for IHD (angina, NSTEMI, STEMI), including the evidence base.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of postural hypotension.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for postural hypotension.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of PE and DVT.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for VTE prophylaxis, including national guidance.	G	Adv II
Understands the basic pathophysiology and management options for dyslipidaemias.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of dyslipidaemia treatments.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of AF.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for AF.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for stroke prevention strategies.	G	Adv I
Understands the basic pathophysiology and management options for peripheral vascular disease (PVD).	G	Adv I
Understands the mechanism of action, characteristics and clinical use of PVD treatments.	G	Adv I

3 Respiratory System		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of asthma.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for asthma, including oxygen, inhaler technique and the national/BTS guidance.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of COPD .	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for COPD, including oxygen, inhaler technique and the national guidance.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for an infective exacerbation of COPD.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of type I & type II respiratory Failure.	G	Adv I
Is able to interpret basic blood gas measurements.	G	Adv I
Understands the treatments for type I & type II respiratory failure.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of TB, including Multi-drug resistant TB (MDRTB).	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for TB, including MDRTB.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of allergies.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for allergies.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for smoking cessation.	G	Adv I

4 Central Nervous System

	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of acute & chronic pain.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for acute pain & chronic pain, with special reference to the use of NSAIDs and opiates in renal impairment.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of Parkinsons Disease.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for Parkinsons Disease.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of epilepsy.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for epilepsy.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of depression, psychosis & dementia.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for depression, psychosis & dementia.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of stroke.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for the prevention and treatment of stroke.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of substance misuse, including methadone and alcohol.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments regimens for substance misuse, including methadone and alcohol.	G	Adv I

5 Infections		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of CAP & HAP.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for CAP & HAP.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of UTI.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for UTI.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of cellulitis.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for cellulitis.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of HAIs.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for HAI, including C. Difficile & MRSA.	G	Adv II
Is aware of local and national guidance for infection prevention and control.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of influenza.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments of influenza, including 'swine flu'.	G	Adv II
Understands the prevention of influenza	G	Adv II
Understands the characteristics of different types of central venous access, with particular reference to dialysis access (CV catheter, AV fistula, PD catheter)	S	M
Understands the basic pathophysiology and risk factors for developing access-associated infections.	S	M
Understands the characteristics and clinical use of treatments for access-related infections.	S	M
Understands the basic pathophysiology and risk factors for developing PD peritonitis.	S	Adv II / M
Understands the characteristics and clinical use of treatments for PD peritonitis.	S	Adv II / M
Understands the basic pathophysiology and risk factors for developing opportunistic infections post transplant.	S	Adv II / M
Understands the mechanism of action, characteristics and use of antibacterial agents in the management of bacterial infections, including spectrums of activity.	S	Adv II / M
Understands the mechanism of action, characteristics and use of antiviral agents in the management of viral infections, especially in transplant patients.	S	Adv II / M

6 Endocrine System		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of type I & type II Diabetes Mellitus.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of NODAT.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for type I & type II Diabetes Mellitus and NODAT.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of diabetic foot ulcers.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for diabetic foot ulcers.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of hypothyroid and hyperthyroid disease.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for hypothyroid and hyperthyroid disease.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of secondary hyperparathyroidism (CKD-MBD).	S	Adv II / M
Understands the mechanism of action, characteristics and clinical use of treatments for secondary hyperparathyroidism (CKD-MBD).	S	Adv II / M
Understands the basic pathophysiology and risk factors for the development of diabetic nephropathy.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for diabetic nephropathy.	S	Adv II

7 Obstetrics, Gynaecology and Urinary-Tract Disorders

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands and is able to interpret renal function tests.	S	Adv II
Understands and is able to use calculations to estimate renal function.	S	Adv II
Understands the principles and is able to make recommendations on dose adjustment in renal impairment and renal replacement therapy.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of acute and chronic renal disease.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for acute and chronic renal disease.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of sexual dysfunction.	G	Adv II
Mechanism of action, characteristics and clinical use of treatments for sexual dysfunction.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of BPH.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for BPH.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of urinary incontinence.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for urinary incontinence.	G	Adv II

8 Malignant Disease and Immunosuppression

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the mechanism of action, characteristics, clinical use, ADRs and monitoring requirements of immunosuppressant drugs.	S	Adv II
Understands the place in therapy for each agent, taking into account NICE guidance.	S	Adv II
Demonstrates the ability to recommend treatment for a specific patient.	S	Adv II
Understands the implications, requirements and clinical use of infection prophylaxis when using immunosuppressant agents.	S	Adv II
Understand the common cancers found in renal patients.	S	Adv I

9 Nutrition and Blood

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the risk factors for the development of vitamin and mineral deficiencies in patients with CKD.	S	Adv II
Understands the characteristics and clinical use of vitamin and mineral supplements in patients with CKD.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of CKD MBD.	S	Adv II / M
Understands the mechanism of action, characteristics and clinical use of treatments (Vitamin D, phosphate binders and calcimimetics) in the management of CKD MBD.	S	Adv II / M
Understands the causes of electrolyte disturbances in renal patients, including metabolic acidosis.	S	Adv II / M
Understands how to correct electrolyte disturbances, including potassium, calcium, sodium, magnesium, phosphate	S	Adv II / M
Understands how to correct metabolic acidosis.	S	Adv II
Understands and is able to interpret FBC, including anaemias.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of anaemia of CKD.	S	Adv II / M
Understands the mechanism of action, characteristics and clinical use of treatments for anaemia of CKD (ESAs and IV iron).	S	Adv II / M
Understands the basic pathophysiology and risk factors for the development of neutropenia & neutropenic sepsis.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for neutropenia & neutropenic sepsis.	G	Adv I
Understands the risks of, and contraindications to, anticoagulation in patients with renal impairment, particularly in relation to the risk of bleeding.	S	Adv II
Understands the use of oral and injectable anticoagulants in prevention of venous thromboembolism in patients with renal impairment.	S	Adv II

I0 Musculoskeletal and Joint Diseases

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of CKD MBD.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments in the management of CKD MBD.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of gout.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for gout.	S	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for osteoporosis, including national guidance.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of osteoporosis, including its relationship with corticosteroid use.	S	Adv II

I1 Eye

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the basic pathophysiology and risk factors for the development of conjunctivitis.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for conjunctivitis.	G	Adv I
Understands the general principles of the basic pathophysiology, symptoms, and management options for glaucoma, macular degeneration, dry eyes and cataracts.	G	Adv I

I2 Ear, Nose and Oropharynx (no syllabus items)

I3 Skin		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the basic pathophysiology, symptoms and risk factors for the development of pruritis and dry skin.	G	Adv I
Understands the clinical management options for pruritis and dry skin.	G	Adv I
Understands the basic pathophysiology, symptoms, and risk factors for the development of leg ulcers and pressure sores.	G	Adv I
Understands the mechanism of action, characteristics and clinical management options for leg ulcers and pressure sores.	G	Adv I
Understands the basic pathophysiology and risk factors for the development of eczema.	G	Adv I
Understands the mechanism of action, characteristics and clinical use of treatments for eczema.	G	Adv I

I4 Immunological Products and Vaccines		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands rationale for annual flu/pneumococcal vaccines in patients with renal disease who are immunocompromised.	G	Adv I
Understands the rationale for vaccinating dialysis patients against hepatitis B	S	Adv I
Understands the rationale for continued monitoring of hepatitis B antibody titres	S	Adv II

I5 Anaesthesia (no syllabus items)

16 Liver Disease		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands and is able to interpret LFTs.	G	Adv II
Understands the basic pathophysiology and risk factors for the development (including drug-induced) of chronic liver disease.	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for chronic liver disease, including the management of ascites, encephalopathy, pruritis and alcoholic liver disease.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of chronic liver disease associated with viral hepatitis (hepatitis B & C).	G	Adv II
Understands the mechanism of action, characteristics and clinical use of treatments for viral hepatitis.	G	Adv II
Understands the basic pathophysiology and risk factors for the development of hepatorenal syndrome.		
Understands the mechanism of action, characteristics and clinical management of hepatorenal syndrome.		

17 Renal Impairment		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands and is able to interpret renal function tests.	S	Adv II
Understands and is able to use calculations to estimate renal function.	S	Adv II
Understands the principles and is able to make recommendations on dose adjustment in renal impairment and renal replacement therapy.	S	Adv II
Understands the basic pathophysiology and risk factors for the development of acute kidney injury.	S	Adv II / M
Understands the primary symptoms of, and co-morbidities associated with acute kidney injury.	S	Adv II / M
Understands the characteristics and principles of clinical management of acute kidney injury.	S	Adv II / M
Understands the basic pathophysiology and risk factors for the development of chronic kidney disease.	S	Adv II / M
Understands the primary symptoms of, and co-morbidities associated with chronic kidney disease.	S	Adv II / M
Understands the mechanism of action, characteristics and clinical use of treatments for the management of chronic kidney disease.	S	Adv II

18 Pregnancy		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the principals of management of pregnancy in patients with renal disease or who have undergone renal transplantation.	S	Adv II / M
Understand the therapeutic options for immunosuppression in patients who have undergone renal transplantation.	S	Adv II / M

19 Breastfeeding		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the therapeutic options for immunosuppression in patients who have undergone renal transplantation and who wish to breastfeed.	S	Adv II / M

20 Older People (no syllabus items)

21 HIV		
	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the pathophysiology, method of transmission, and natural history of HIV disease.	G	Adv I
Understands the mechanism of action, characteristics, clinical use and adverse effects of treatment options for HIV disease.	G	Adv I

22 Toxicology		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the possible toxic effects of drugs in patients with renal impairment taking multiple medicines.	S	Adv II
Demonstrates the knowledge and ability to identify high-risk drugs, amend doses of these drugs according to the degree of renal impairment, and monitor treatment efficacy accordingly.	S	Adv II

23 Parenteral Therapy		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the principles and application of minimum volumes of infusion fluids in fluid restricted patients with renal impairment.	G	Adv II

24 Paediatrics (no syllabus items)

25 Palliative and End of Life Care		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the role of syringe drivers in palliative care including mixing of drugs in syringe drivers.	G	Adv I
Understands the basic principles of palliative care and management options for symptom control at end of life.	G	Adv II

26 Clinical Trials		
	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the basic principles behind clinical trial design and implementation according to GCP regulations.	G	Adv I

27 Other Issues in Renal

	Specialist or Generalist	Advanced Stage I, Advanced Stage II or Mastery
Understands the pathophysiology and natural history of inherited renal diseases	S	Adv II
Understands the pathophysiology, symptoms and co-morbidities of autoimmune renal diseases (vasculitis, lupus nephritis, etc)	S	Adv II / M
Understands the mechanism of action, characteristics, clinical use and adverse effects of treatments for autoimmune renal disease.	S	Adv II / M
Understands the pathophysiology and treatment of nephrotic and nephritic syndromes	S	Adv II / M
Understands the pathophysiology, risk factors for developing, and treatment of onco-haematological related renal diseases	S	Adv II
Understands the mechanisms, pathophysiology and management of drug induced renal disease (acute and chronic)	S	Adv II
Understands the pathophysiology, risk factors for developing, and management of Acute Kidney Injury (AKI)	S	Adv II / M
Understands the pathophysiology, risk factors for developing, causes of and symptoms of Chronic Kidney Disease (CKD)	S	Adv II / M
Understands the therapeutic strategies for the management of the symptoms of CKD	S	Adv II / M
Understands the principles of assessment of fluid status, and management of fluid balance	S	Adv I / Adv II
Understands the symptoms of uraemia and the therapeutic options for their management.	S	Adv II
Understands the principles of Maximum Conservative Management in CKD.	S	Adv II
Understands the mechanism of action, characteristics, clinical use and adverse effects of drugs used for the induction and maintenance of immunosuppression post-transplant.	S	Adv II / M
Understands the mechanisms, pathophysiology and management of acute allograft rejection	S	Adv II / M
Understands the pathophysiology and management strategies for chronic allograft nephropathy	S	Adv II / M
Understands the aetiology and management of common post-transplant complications (infection, malignancy, diabetes, cardiovascular disease)	S	Adv II / M

28 Other issues in General

	Specialist or Generalist	Advanced Stage I , Advanced Stage II or Mastery
Understands the role of the NPSA, including alerts.	G	Adv I
Understands the principles of root cause analysis.	G	Adv I
Is able to produce a medication incident report, identifying common trends, themes and developing action plans.	G	Adv I
Understands type A & type B ADRs, including the differences.	G	Adv II
Is able to identify type A & type B ADRs.	G	Adv II
Understands management of type A & type B ADRs.	G	Adv II
Understands the principles of PbR, including drugs excluded from the Tariff.	G	Adv I
Understands the need for local decision making and funding of drugs, including the need for a formulary.	G	Adv I



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