SPECIALTY TRAINING CURRICULUM

FOR

RENAL MEDICINE

AUGUST 2010

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Joint Royal Colleges of Physicians Training Board

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1 Introduction

Renal Medicine or Nephrology is the medical speciality that involves the care of patients with all forms of kidney disease.
This includes treatment of patients with:

- kidney disease without impairment of excretory kidney function (e.g. including proteinuria, haematuria, recurrent urinary tract infection and kidney stone disease) acute kidney injury or chronic kidney disease,
- conditions that primarily or solely affect the kidney (such as some forms of glomerulonephritis);
- disorders which affect the kidney as part of a multi-system disease (such as diabetic nephropathy);
- disorders that are linked to changes or abnormalities in renal physiology (such as acid base disturbances).
- end-stage kidney disease (ie patients with a kidney transplant, receiving any form of dialysis, or undergoing active supportive treatment of kidney failure)

A significant part of this service involves the early detection of kidney problems, the prevention and management of progressive kidney disease, and the management of secondary complications arising as a result of kidney disease. However, kidney disease is a long-term condition for many patients, and can impact on all aspects of life. The care, support and treatment of patients with end-stage kidney failure are important aspects of Renal Medicine. A coordinated approach involving access to, and support from, the whole range of health professionals is required to ensure that nutritional, lifestyle, social and psychological needs are met alongside the physical needs of patients. The complexity of renal healthcare requires integrated multiprofessional working to provide a high quality service.
The care of children with kidney disease is coordinated by paediatric renal physicians, and particular education is required for the transition to adult renal services.

References:
Consultant Physicians Working for Patients. Renal Medicine: p275-277 (2nd edition). Royal College of Physicians

British Renal Society. A multi-professional renal workforce plan for adults and children with renal disease. Recommendations of the National Workforce Planning Group 2002. 3.3 Renal Physicians

2 Rationale

2.1 Purpose of the curriculum

The purpose of this curriculum is to define the process of training and the competencies needed for the award of a certificate of completion of training (CCT) in adult Renal Medicine. The curriculum covers training in all four nations of the UK.

What is a Renal physician?
A Renal Physician has specialist knowledge of Renal Medicine and the knowledge, skills and attributes to manage all aspects of acute kidney injury, chronic kidney disease and end stage kidney disease (including dialysis and renal transplantation). Renal physicians provide a wide range of clinical services for patients with kidney disease in a variety of clinical settings including:

- In-patient and out-patients hospital settings, and outreach settings closer to the patient's home.

- Dialysis units

- Other specialist units and hospitals, particularly Intensive Care, Cardiothoracic, Trauma, Liver and Vascular Units where acute kidney injury is common.

Renal physicians work closely with colleagues in many other specialties for example: Urologists managing patients with renal stone disease etc., Diabetologists managing patients with diabetes in whom renal problems are common, Obstetricians managing pregnancy complicated by kidney disease and Dermatologists dealing with skin problems following renal transplantation etc.

Renal physicians generally work in renal units based in District General Hospitals or University Teaching Hospitals. The renal services provided in these two types of hospital are broadly similar, with the exception that renal transplantation mostly takes place in University Teaching Hospitals. Many renal units also provide care in satellite haemodialysis units, either in other hospitals, independent treatment centres or in community-based facilities.

Renal physicians may undertake to perform practical procedures in support of their units' services to patients depending on the skill mix of the multidisciplinary team. These include diagnostic procedures such as renal biopsy and ultrasound of the renal tract and procedures related to establishing vascular or peritoneal access for the delivery of dialysis treatment. Renal physicians need to be fully trained in the indications for and management of complications related to these procedures but, with the exception of insertion on non-tunnelled dialysis catheters, gaining these practical skills is not an essential requirement in obtaining a CCT.

Renal physicians deliver effective patient-focussed care for patients with kidney disease throughout the patient journey from diagnosis to end-of-life care. This enhances patient care and facilitates high quality complex long-term decision making.

The service they give patients depends on close collaboration with colleagues in primary care, in the renal multi-professional team and in other services. Their role involves leadership in many fields particularly in development and provision of renal services.

Renal physicians are engaged in clinical governance, are effective leaders, educators of patients and colleagues and appreciate the role of research in delivering high quality patient care.

The award of a CCT in Renal Medicine indicates that a trainee has completed training to a standard that allows them to practise competently in these areas of Renal Medicine without supervision*. However, it is recognised that being a Renal physician represents a commitment to lifelong learning and even after award of a CCT it is expected that these skills will be developed and refined through further practice and professional development.

The additional roles and responsibilities of Renal Physicians are described in detail in Consultant Physicians Working for Patients (2nd edition) (ref)

Reference:

Consultant Physicians Working for Patients. Renal Medicine: p275-277 (2nd edition). Royal College of Physicians

* It is not a requirement for the award of a CCT for trainees to acquire full operative competence in native and transplant kidney biopsy

2.2 Development

This curriculum was developed by the Specialist Advisory Committee (SAC) for Renal Medicine under the direction of the Joint Royal Colleges of Physicians Training Board (JRCPTB). It replaces the previous versions of the curriculum dated May 2007 and December 2004. The changes ensure the curriculum meets GMC's standards for Curricula and Assessment, and incorporate revisions to the content and delivery of the training programme. Major changes from the previous curriculum include the incorporation of generic, leadership and health inequalities competencies.

The Renal Medicine curriculum was developed on behalf of the SAC in Renal Medicine by a Renal Curriculum Working Group (Appendix 1) which included representatives from the Renal SAC, Renal Association Education and Training Committee, Programme Directors and Chairs of Speciality Training Committees, a trainee representatives, lay representatives and NHS management representatives

The Renal Curriculum Working Group considered feedback on the 2007 curriculum received by the Chair and the SAC Chair from individual Consultants, other Speciality organisations including the Renal Information Group, Renal Registry and Chair of the RCP Joint Speciality Committee.

The Curriculum was further developed following consultation with a range of stakeholder groups including:
Renal Association Executive Committee,
Renal Association Education and Training Committee
Nephrology Specialty Certificate (SCE) Examination Chair
Consultant Renal physicians, trainers in Renal Medicine, and Renal Medicine trainees via SAC representatives
Trainees via SpR Club
British Renal Symposium
National Kidney Federation

2.3 Entry requirements

Specialty training in Renal Medicine consists of core and higher speciality training. Core training provides physicians with: the ability to investigate, treat and diagnose patients with acute and chronic medical symptoms; and with high quality review skills for managing inpatients and outpatients. Higher speciality training then builds on these core skills to develop the specific competencies required to practise independently as a consultant in Renal Medicine.

Core training may be completed in either a Core Medical Training (CMT) or Acute Care Common Stem (ACCS) programme. The full curriculum for specialty training in Renal Medicine therefore consists of the curriculum for either CMT or ACCS plus this specialty training curriculum for Renal Medicine.

Core Medical training programmes are designed to deliver core training for specialty training by acquisition of knowledge and skills as assessed by the workplace based assessments and the MRCP. Programmes are usually for two years and are broad

based consisting of four to six placements in medical specialties. These placements over the two years must include direct involvement in the acute medical take. Trainees are asked to document their record of workplace based assessments in an ePortfolio which will then be continued to document assessments in specialty training. Trainees completing core training will have a solid platform of common knowledge and skills from which to continue into Specialty Training at ST3, where these skills will be developed and combined with specialty knowledge and skills in order to award the trainee with a certificate of completion of training (CCT).

There are common competencies that should be acquired by all physicians during their training period starting within the undergraduate career and developed throughout the postgraduate career. These are initially defined for CMT and then developed further in the specialty. This part of the curriculum supports the spiral nature of learning that underpins a trainee's continual development. It recognises that for many of the competences outlined there is a maturation process whereby practitioners become more adept and skilled as their career and experience progresses. It is intended that doctors should recognise that the acquisition of basic competences is often followed by an increasing sophistication and complexity of that competence throughout their career. This is reflected by increasing expertise in their chosen career pathway.

The approved curriculum for CMT is a sub-set of the Curriculum for General Internal Medicine (GIM). A "Framework for CMT" has been created for the convenience of trainees, supervisors, tutors and programme directors. The body of the Framework document has been extracted from the approved curriculum but only includes the syllabus requirements for CMT and not the further requirements for acquiring a CCT in GIM.

Completion of CMT or ACCS and acquisition of full MRCP (UK) will be required before entry into Specialty training at ST3 (2011 onwards).

2.4 Enrolment with JRCPTB

Trainees are required to register for specialist training with JRCPTB at the start of their training programmes. Enrolment with JRCPTB, including the complete payment of enrolment fees, is required before JRCPTB will be able to recommend trainees for a CCT. Trainees can enrol online at www.jrcptb.org.uk

2.5 Duration of training

Although this curriculum is competency based, the duration of training must meet the European minimum of 5 years for full time Renal Medicine training adjusted accordingly for flexible training (EU directive 2005/36/EC). The SAC has advised that training from ST1 will usually be completed in 5 years in full time training (2 years core plus 3 years Renal Medicine training).

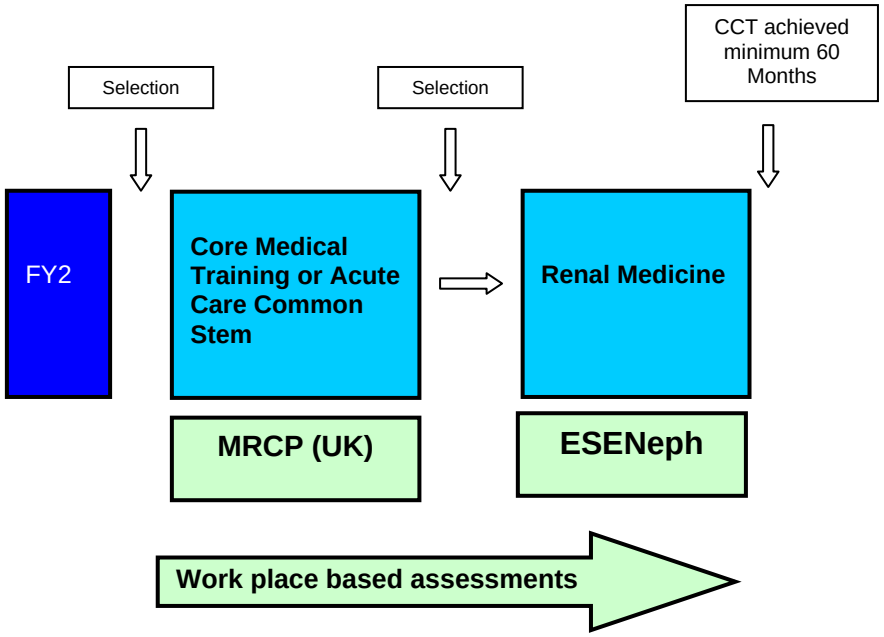


Diagram 1.0 Training Pathway for Renal Medicine

2.6 Dual CCT

For a Renal physician to participate in the acute medical take and to be responsible for the care of un-selected, acutely ill general medical patients as a senior medical appointment, he/she requires dual CCTs in Renal Medicine and General Internal Medicine (GIM)* .It is also possible to dual accredit with other related specialities such as Intensive Care Medicine.

Trainees who wish to achieve a CCT in another specialty, typically General Internal Medicine, as well as Renal Medicine must have applied for and successfully entered a training programme which was advertised openly as a dual training programme. Trainees will need to achieve the competencies, with assessment evidence, as described in both the Renal and other specialty (e.g. GIM) curricula. Individual assessments may provide evidence towards competencies from both curricula.

The exact structure of a training programme that combines Renal Medicine and GIM may vary between Deaneries, but the SAC in Renal Medicine and the SAC in Acute and General Medicine have advised that this will usually extend training to a total of seven years from ST1 (indicative time). This will normally include, from ST3, three years in clinical posts in Renal Medicine and two years in a GIM post, although the GIM training may be distributed more widely through the Renal Medicine training programme.

On successful completion of the training programme and assessments for both specialties, as outlined in the relevant GMC approved curricula, the trainee will achieve two CCTs, one in Renal Medicine and one in GIM/ or other speciality. Postgraduate Deans wishing to advertise such programmes should ensure that they meet the requirements of both SACs.

*Specialty Curriculum for General internal Medicine (August 2009). JRCPTB, London

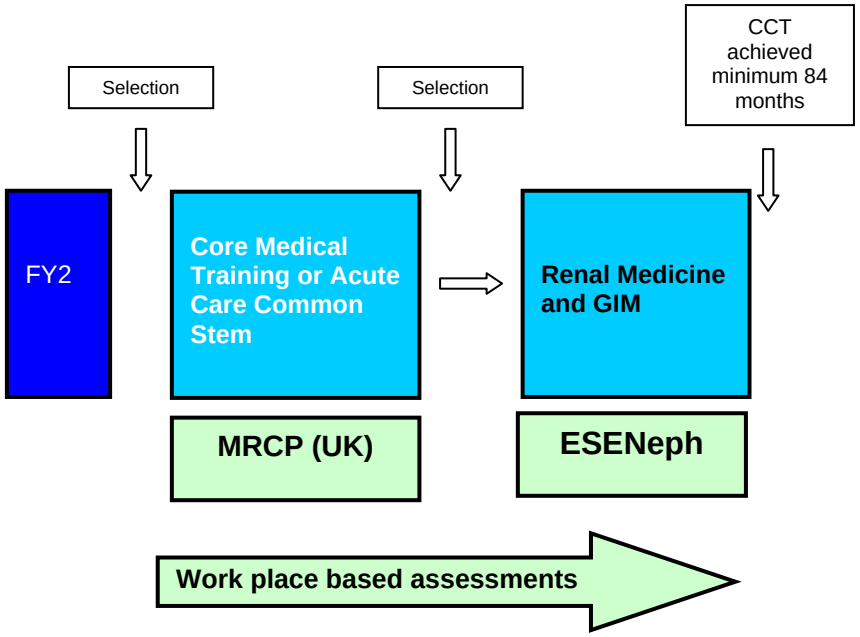


Diagram 2.0 Training Pathway for Renal Medicine with GIM

2.7 Less Than Full Time Training (LTFT)

Trainees who are unable to work full-time are entitled to opt for less than full time training programmes. EC Directive 2005/36/EC requires that:

- LTFT shall meet the same requirements as full-time training, from which it will differ only in the possibility of limiting participation in medical activities.
- The competent authorities shall ensure that the competencies achieved and the quality of part-time training are not less than those of full-time trainees.

The above provisions must be adhered to. LTFT trainees should undertake a pro rata share of the out-of-hours duties (including on-call and other out-of-hours commitments) required of their full-time colleagues in the same programme and at the equivalent stage.

EC Directive 2005/36/EC states that there is no longer a minimum time requirement on training for LTFT trainees. In the past, less than full time trainees were required to work a minimum of 50% of full time. With competence-based training, in order to retain competence, in addition to acquiring new skills, less than full time trainees would still normally be expected to work a minimum of 50% of full time. If you are returning or converting to training at less than full time please complete the LTFT application form on the JRCPTB website www.jrcptb.org.uk .

Funding for LTFT is from deaneries and these posts are not supernumerary. Ideally therefore 2 LTFT trainees should share one post to provide appropriate service cover.

Less than full time trainees should assume that their clinical training will be of a duration pro-rata with the time indicated/recommended, but this should be reviewed during annual appraisal by their TPD and chair of STC and Deanery Associate Dean for LTFT training. As long as the statutory European Minimum Training Time (if relevant), has been exceeded, then indicative training times as stated in curricula may be adjusted in line with the achievement of all stated competencies**.**

3 Content of learning

3.1 Programme content and objectives

3.2 Good Medical Practice

In preparation for the introduction of licensing and revalidation, the General Medical Council has translated Good Medical Practice into a Framework for Appraisal and Assessment which provides a foundation for the development of the appraisal and assessment system for revalidation. The Framework can be accessed at http://www.gmc-uk.org/Framework_4_3.pdf_25396256.pdf

The Framework for Appraisal and Assessment covers the following domains:
Domain 1 – Knowledge, Skills and Performance
Domain 2 – Safety and Quality
Domain 3 – Communication, Partnership and Teamwork
Domain 4 – Maintaining Trust

The "GMP" column in the syllabus defines which of the 4 domains of the Good Medical Practice Framework for Appraisal and Assessment are addressed by each competency. Most parts of the syllabus relate to "Knowledge, Skills and Performance" but some parts will also relate to other domains.

3.3 Syllabus

In the tables below, the "Assessment Methods" shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used. See section 5.2 for more details.

"GMP" defines which of the 4 domains of the Good Medical Practice Framework for Appraisal and Assessment are addressed by each competency. See section 3.2 for more details.

For each area of competence it is anticipated that trainees will recall and build upon the competencies outlined by the Foundation and Core Medical Training Curricula and which they should have acquired during the Foundation and Core Medical /ACCS training period. It is recognised that for many of the competencies outlined there is a continuing maturation process which means that the practitioners will become more adept and skilled as their career progresses. It is intended that doctors recognise that these competencies become increasingly sophisticated throughout their career leading to improved ability to ascertain patient needs, make diagnoses and formulate inclusive treatment plans.

To further aid decisions on progression of competence there are four descriptor levels included. It is anticipated that at the end of ST3 specialty trainees will achieve competencies to level 1, during ST4 and by the time of the penultimate year assessment (PYA) trainee will achieve competencies to level 2-3, and competencies defined by the level 4 descriptors will be acquired in the ST5 (ST7 if dual accreditation).

Competencies are often context specific and defined elements of the competencies within this common skills curriculum will be more important in certain specialties than others. Such emphasis will be outlined in the specialty curriculum. The broad framework however is important for all medical practitioners. This common skills curriculum must be read in association with the specialty curriculum to define all the

competencies that a trainee must have acquired by the time of award of certificate of completion of training (CCT).

Syllabus Contents

A. Common Competencies

1. History Taking

To progressively develop the ability to obtain a relevant focused history from increasingly complex patients and challenging circumstances

To record accurately and synthesise history with clinical examination and formulation of management plan according to likely clinical evolution

Knowledge	Assessment Methods	GMP
Recognises of importance of different elements of history	mini-CEX, MSF	1
Recognises that patients do not present history in structured and complete fashion	mini-CEX, MSF	1
Recognises the impact of culture and social background, education level, risk behaviour and emotion may influence the presentation of an illness	mini-CEX, MSF	1
Recognises that history should inform examination, investigation and management plan	mini-CEX, MSF	1
Recognises of importance of different elements of history	mini-CEX	1
Recognises that patients do not present history in structured fashion	ACAT, mini-CEX	1,3
Knows likely causes and risk factors for conditions relevant to mode of presentation	mini-CEX	1
Recognise that history should inform examination, investigation and management plan	mini-CEX	1
Skills		
Focuses on relevant aspects of history	DOPS, mini-CEX, MSF	1,2
Identifies and overcomes possible barriers to effective communication	DOPS, mini-CEX, MSF	2,3
Assimilates history from the available information from patient and other sources	DOPS, mini-CEX, MSF	3
Recognises and interprets the use of non verbal communication from patients and carers	DOPS, mini-CEX, MSF	3
Manages alternative and conflicting views from family, carers and friends	DOPS, mini-CEX, MSF	3,4
Supplements history with standardised instruments or questionnaires when relevant	DOPS, mini-CEX, MSF	2
Manages time and draws consultation to a close appropriately	DOPS, mini-CEX, MSF	3
Behaviours		
Shows respect and behaves in accordance with Good Medical Practice	DOPS, mini-CEX, MSF	3,4
Level Descriptor		
1 Obtains, records and presents accurate clinical history relevant to the clinical presentation Elicits most important positive and negative indicators of diagnosis Starts to ignore irrelevant information		
2 Demonstrates ability to obtain relevant focused clinical history in the context of limited time e.g.		

	outpatients, ward referral Demonstrates ability to target history to discriminate between likely clinical diagnoses Records information in most informative fashion
3	Demonstrates ability to rapidly obtain relevant history in context of severely ill patients Demonstrates ability to obtain history in difficult circumstances e.g. from angry or distressed patient/relatives Demonstrates ability to keep interview focused on most important clinical issues
4	Able to quickly focus questioning to establish working diagnosis and relate to relevant examination, investigation and management plan in most acute and common chronic conditions in almost any environment

2. Clinical Examination

To progressively develop the ability to perform focused and accurate clinical examination in increasingly complex patients and challenging circumstances

To relate physical findings to history in order to establish diagnosis and formulate a management plan

Knowledge	Assessment Methods	GMP
Understands the need for a valid clinical examination	CbD, mini-CEX, MSF	1
Understands the basis for clinical signs and the relevance of positive and negative physical signs	CbD, mini-CEX, MSF	1
Recognises constraints to performing physical examination and strategies that may be used to overcome them	CbD, mini-CEX, MSF	1
Recognises the limitations of physical examination and the need for adjunctive forms of assessment to confirm diagnosis	CbD, mini-CEX, MSF	1
Understands the need for a targeted and relevant clinical examination (including urinalysis)	CbD, mini-CEX, MSF	1
Skills		
Performs an examination relevant to the presentation and risk factors that is valid, targeted and time efficient	CbD, mini-CEX, DOPS, MSF	1
Recognises the possibility of deliberate harm (both self harm and harm by others) in vulnerable patients and report to appropriate agencies	CbD, mini-CEX, DOPS, MSF	1
Actively elicits important clinical findings	CbD, mini-CEX	1
Performs relevant adjunctive examinations (including urinalysis)	CbD, mini-CEX	1
Behaviours		
Shows respect and behaves in accordance with Good Medical Practice	CbD, mini-CEX, DOPS, MSF	3,4
Ensures examination, whilst clinically appropriate, considers social, cultural and religious boundaries to examination, appropriately communicates and makes alternative arrangements where necessary	CbD, mini-CEX, DOPS, MSF	3,4

Level Descriptor

1 Performs, accurately records and describes findings from basic physical examination

Elicits most important physical signs

Uses and interprets findings adjuncts to basic examination e.g. internal examination, blood pressure measurement, pulse oximetry, peak flow, urine analysis

2 Performs focused clinical examination directed to presenting complaint e.g. cardiorespiratory, abdominal pain

Actively seeks and elicits relevant positive and negative signs

Uses and interprets findings adjuncts to basic examination e.g. electrocardiography, spirometry, ankle brachial pressure index

3 Performs and interprets relevance advanced focused clinical examination e.g. neurological examination and mapping any relevant signs to specific neurological abnormalities

Elicits subtle findings

Uses and interprets findings of advanced adjuncts to basic examination e.g. sigmoidoscopy, ultrasound, echocardiography

4 Rapidly and accurately performs and interprets focused clinical examination in challenging

circumstances e.g. acute medical or surgical emergency

3. Therapeutics and Safe Prescribing

To progressively develop the ability to prescribe, review and monitor appropriate medication relevant to Renal Medicine including therapeutic and preventative indications

Knowledge	Assessment Methods	GMP
Recall pharmacology of commonly used drugs in the presence of renal impairment	CbD, mini-CEX, ESENeph	1
Define the effects of age, body size, extra-renal organ dysfunction and concurrent illness on drug distribution and metabolism relevant to the trainees practice	CbD, mini-CEX	1
Know the Indications, contraindications, side effects, drug interactions and dosage of commonly used drugs	CbD, mini-CEX	1,2
Recall range of adverse drug reactions to commonly used drugs, including complementary medicines	CbD, mini-CEX	1,2
Recall drugs requiring therapeutic drug monitoring and interpret results	CbD, mini-CEX	1,2
Describes how commonly prescribed drugs may adversely affect renal function	CbD, mini-CEX	1,2
Understand the effect of dialysis upon commonly prescribed drugs	CbD, mini-CEX, ESENeph	1,2
Understand the mechanism of action and potential interactions of Immunosuppressive medications	CbD, mini-CEX, ESENeph	1,2
Outline tools to promote patient safety and prescribing, including IT systems	CbD, mini-CEX	1,2
Recognise the roles of regulatory agencies involved in drug use, monitoring and licensing (e.g. National Institute for Clinical Excellence (NICE), Committee on Safety of Medicines (CSM), and Healthcare Products Regulatory Agency and hospital formulary committees	CbD, mini-CEX	1,2
Skills		
Prescribe safely to patients with all forms of renal disease and in patients receiving renal replacement therapy	CbD, mini-CEX	2
Provide comprehensible explanations to the patient, and carers when relevant, for the use of medicines	CbD, mini-CEX	2,3
Review the continuing need for long term medications relevant to the trainees clinical practice	CbD, mini-CEX	1,2
Anticipate and avoid defined drug interactions, including complementary medicines	CbD, mini-CEX	1,2
Advise patients (and carers) about important interactions and adverse drug effects	CbD, mini-CEX	2,3,4
Make appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function, immunosuppressive agents)	CbD, mini-CEX	2
Use IT prescribing tools where available to improve safety	CbD, mini-CEX	2
Employ validated methods to improve patient concordance with prescribed medication	CbD, mini-CEX	2,3
Behaviours		

To discuss with a patient treatment options and importance of compliance	CbD, mini-CEX	3,4
Remain up to date with therapeutic alerts, and respond appropriately	CbD, mini-CEX	2
Teach other healthcare professionals about prescribing in renal disease	CbD, mini-CEX	2,3
Recognise the benefit of minimising number of medications taken by a patient	CbD, mini-CEX	2,3
Work with pharmacists and other members of MDT to promote safe prescribing	CbD, mini-CEX	2,3
Appreciate the role of non-medical prescribers	CbD, mini-CEX	3
Remain open to advice from other health professionals on medication issues	CbD, mini-CEX	2,3,4
Recognise the importance of resources when prescribing, including the role of a Drug Formulary	CbD, mini-CEX	2
Ensure prescribing information is shared promptly and accurately between a patient's health providers, including between primary and secondary care	CbD, mini-CEX	2,3

Level Descriptor

1 Recalls the pharmacology of commonly used drugs

Able to safely prescribe commonly used drugs and to refer to local guidelines and drug formulae if appropriate

Seeks advice from others for more complex patients or drug use

2 Has become more proficient in safe prescription

Focuses more on drug interaction, monitoring and need of dose adjustment in individual patients

Starts to get more focus in the drug use special to the trainee's specialty

3 Able to prescribe safely in most clinical situations

Knows how to prescribe safely medications specific to the trainee's specialty, e.g. immunosuppression and renal patients on dialysis

4 Able to formulate and initiate treatment quickly and safely in most emergency and common chronic condition including the trainee's specialty

4. Time Management and Decision Making

To become increasingly able to prioritise and organise clinical and clerical duties in order to optimise patient care

To become increasingly able to make appropriate clinical and clerical decisions in order to optimise the effectiveness of the clinical team resource

Knowledge	Assessment Methods	GMP
Understands that effective organisation is key to time management	CbD	1
Understands that some tasks are more urgent and/or more important than others	CbD	1
Understands the need to prioritise work according to urgency and importance	CbD	1
Maintains focus on individual patient needs whilst balancing multiple competing pressures	CbD	1
Understands that some tasks may have to wait or be delegated to others	CbD	1
Understands the roles, competencies and capabilities of other professionals and support workers	CbD	1
Outlines techniques for improving time management	CbD	1
Understands the importance of prompt investigation, diagnosis and treatment in disease and illness management	CbD	1,2
Skills		
Identifies clinical and clerical tasks requiring attention or predicted to arise	CbD, mini-CEX	1,2
Estimates the time likely to be required for essential tasks and plan accordingly	CbD, mini-CEX	1
Groups together tasks when this will be the most effective way of working	CbD, mini-CEX	1
Recognises the most urgent / important tasks and ensures that they managed expediently	CbD, mini-CEX	1
Regularly reviews and re-prioritises personal and team work load	CbD, mini-CEX	1
Organises and manages workload effectively and flexibly	CbD, Mini- mini-CEX	1
Makes appropriate use of other professionals and support workers	CbD, mini-CEX	1
Behaviours		
Ability to work flexibly and deal with tasks in an effective and efficient fashion	CbD, MSF	3
Recognises when you or others are falling behind and take steps to rectify the situation	CbD, MSF	3
Communicates changes in priority to others	MSF	1
Remains calm in stressful or high pressure situations and adopts a timely, rational approach	MSF	1
Level Descriptor		
1 Recognises the need to identify work and compiles a list of tasks Works systematically through tasks with little attempt to prioritise		

	Needs direction to identify most important tasks
	Sometimes slow to perform important work
	Does not use other members of the clinical team
	Finds high workload very stressful
2	Organises work appropriately but does not always respond to or anticipate when priorities should be changed
	Starting to recognise which tasks are most urgent
	Starting to utilise other members of the clinical team but not yet able to organise their work
	Requires some direction to ensure that all tasks completed in a timely fashion
3	Recognises the most important tasks and responds appropriately
	Anticipates when priorities should be changed
	Starting to lead and direct the clinical team in effective fashion
	Supports others who are falling behind
	Requires minimal organisational supervision
4	Automatically prioritises and manages workload in most effective fashion
	Communicates and delegates rapidly and clearly
	Automatically responsible for organising the clinical team
	Calm leadership in stressful situations

5. Decision Making and Clinical Reasoning

To progressively develop the ability to formulate a diagnostic and therapeutic plan for a patient according to the clinical information available

To progressively develop the ability to prioritise the diagnostic and therapeutic plan

To be able to communicate the diagnostic and therapeutic plan appropriately

Knowledge	Assessment Methods	GMP
Defines the steps of diagnostic reasoning:		
• Interprets history and clinical signs	CbD, mini-CEX	1
• Conceptualises clinical problem in a medical and social context	CbD, mini-CEX	1
• Understands the psychological component of disease and illness presentation	CbD, mini-CEX	1
• Generates hypothesis within context of clinical likelihood	CbD, mini-CEX	1
• Tests, refines and verifies hypotheses	CbD, mini-CEX	1
• Develops problem list and action plan	CbD, mini-CEX	1
• Recognises how to use expert advice, clinical guidelines and algorithms	CbD, mini-CEX	1
• Recognises and appropriately responds to sources of information accessed by patients	CbD, mini-CEX	1
Recognises the need to determine the best value and most effective treatment both for the individual patient and for a patient cohort	CbD, mini-CEX	1
Defines the concepts of disease natural history and assessment of risk	CbD, mini-CEX	1,2
Recalls methods and associated problems of quantifying risk e.g. cohort studies	CbD, mini-CE	1
Outlines the concepts and drawbacks of quantitative assessment of risk or benefit e.g. numbers needed to treat	CbD, mini-CEX	1
Describes commonly used statistical methodology	CbD, mini-CEX	1
Knows how relative and absolute risks are derived and the meaning of the terms' predictive value, sensitivity and specificity in relation to diagnostic tests	CbD, mini-CEX	1
Skills		
Interpret clinical features, their reliability and relevance to clinical scenarios including recognition of the breadth of presentation of common disorders	CbD, mini-CEX, DOPS, MSF	1
Recognise critical illness and respond with due urgency	CbD, mini-CEX, DOPS, MSF	1
Generate plausible hypothesis(es) following patient assessment	CbD, mini-CEX, DOPS, MSF	1
Construct a concise and applicable problem list using available information	CbD, mini-CEX, DOPS, MSF	1
Construct an appropriate management plan and communicate this effectively to the patient, parents and carers where relevant	CbD, mini-CEX, DOPS, MSF	1,3,4
Define the relevance of an estimated risk of a future event to an individual patient	CbD, mini-CEX, DOPS, MSF	1

Use risk calculators appropriately	CbD, mini-CEX, DOPS, MSF	1
Apply quantitative data of risks and benefits of therapeutic intervention to an individual patient	CbD, mini-CEX, DOPS, MSF	1
Search and comprehend medical literature to guide reasoning	CbD, mini-CEX, DOPS, MSF	1
Behaviours		
Recognises the difficulties in predicting occurrence of future events	CbD, mini-CEX	1
Shows willingness to discuss intelligibly with a patient the notion and difficulties of prediction of future events, and benefit/risk balance of therapeutic intervention	CbD, mini-CEX	3
Shows willingness to adapt and adjust approaches according to the beliefs and preferences of the patient and/or carers	CbD, mini-CEX	3
Is willing to facilitate patient choice	CbD, mini-CEX	3
Shows willingness to search for evidence to support clinical decision making	CbD, mini-CEX	1,4
Demonstrates ability to identify one's own biases and inconsistencies in clinical reasoning	CbD, mini-CEX	1,3

Level Descriptor

1 In a straightforward clinical case:

- Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence
- Institutes an appropriate investigative plan
- Institutes an appropriate therapeutic plan
- Seeks appropriate support from others
- Takes account of the patient's wishes

2 In a difficult clinical case:

- Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence
- Institutes an appropriate investigative plan
- Institutes an appropriate therapeutic plan
- Seeks appropriate support from others
- Takes account of the patient's wishes

3 In a complex, non-emergency case:

- Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence
- Institutes an appropriate investigative plan
- Institutes an appropriate therapeutic plan
- Seeks appropriate support from others
- Takes account of the patient's wishes

4 In an emergency situation:

- Assesses quickly and formulates diagnosis, investigative plan, and urgent treatment
- Seeks assistance and help from others
- In making decision, takes into account any background information, underlying illness etc

6. The Patient as Central Focus of Care

To provide patient with health information effectively and honestly

To help patients to make informed decision of their treatment options and care plans and to carry them out effectively

Knowledge	Assessment Methods	GMP
Outlines health needs and care plans of individual patient, taking into consideration their culture and belief which may also influence the way they present	mini-CEX, MSF	1
Skills		
Gives adequate time for patients to express ideas, concerns and expectations	mini-CEX, MSF	1,3,4
Responds to questions honestly and seek advice if unable to answer	mini-CEX, MSF	3
Speaks at a level which the patient can understand easily	mini-CEX, MSF	3
Encourages the health care team to adopt a holistic approach and to respect the philosophy of patient focused care	mini-CEX, MSF	3
Aware of the importance of developing a self-management plan using an individual care plan	mini-CEX, MSF	3,4
Supports patients and carers where relevant to work in partnership with health care professionals to implement management	mini-CEX, MSF	3,4
Informs patient of treatment options so as to empower the patient to make an informed decision of their care	mini-CEX, MSF	3,4
Behaviours		
Supports patient self-management	mini-CEX, MSF	3
Recognises the duty of the medical professional to act as patient advocate	mini-CEX, MSF	3,4

Level Descriptor

1 Listens to patient's concerns

Gives honest advice in a way the patient can understand easily

Seeks information and help from others for any uncertainty

2 Increasingly able to discuss with patients the range of treatment options available for most common conditions and the risks and benefits of each option

Encourages and assists the patient to develop self management plan

3 Knows the range of treatment options available for most common conditions, specific renal conditions and options for renal replacement therapy including home dialysis.

Able to inform and guide the patients in a honest, unbiased way

Able to review treatment plan and to explore with patients and carers any difficulties which may need attention

7. Prioritisation of Patient Safety in Clinical Practice

To understand that patient safety depends on the organisation of care and health care staff working well together

To never compromise patient safety

To understand the risks of treatments and to discuss these honestly and openly with patients so that patients are able to make decisions about risks

To ensure that all staff are aware of risks and work together to minimise risk

Knowledge	Assessment Methods	GMP
Outlines the features of a safe working environment	CbD, mini-CEX	1
Understands that safe working practice relates to personal, clinical and organisational settings	CbD, mini-CEX	1
Outlines local procedures for optimal practice e.g. safe prescribing	CbD, mini-CEX	1
Recalls the importance of risk assessment and management	CbD, mini-CEX	1
Recalls side effects and contraindications of medications prescribed	CbD, mini-CEX	1
Outlines the hazards of medical equipment in common use	CbD, mini-CEX	1
Skills		
Recognises when a patient is not responding to treatment, reassesses the situation, and encourages others to do so	DOPS, MSF	1,3
Recognises and responds to the manifestations of a patient's deterioration (symptoms, signs, observations, and laboratory results) and supports other members of the team to act similarly	DOPS, MSF	1,3
Responds appropriately to a significant event, or near incident, to encourage improvement in practice of individual and unit	DOPS, MSF	1,3
Improves patients' and colleagues' understanding of the side effects and contraindications of therapeutic intervention	DOPS, MSF	1
Uses of medical equipment safely, and reports faulty equipment reported appropriately	DOPS, MSF	1,2
Behaviours		
Continues to maintain a high level of safety awareness and consciousness at all times	DOPS, MSF	2
Encourages feedback from all members of the team on safety issues	DOPS, MSF	3
Shows willingness to take action when concerns are raised about performance of members of the healthcare team, and acts appropriately when these concerns are voiced by others	DOPS, MSF	3
Continues to be aware of own limitations, and operates competently within them	DOPS, MSF	1

Level Descriptor

1 Discusses risks of treatments with patients and is able to help patients make decisions about their treatment

Does not hurry patients into decisions

Promotes patients safety to more junior colleagues

Always ensures the safe use of equipment

Follows guidelines unless there is a clear reason for doing otherwise

Acts promptly when a patient's condition deteriorates

	Recognises untoward or significant events and always reports these Leads discussion of causes of clinical incidents with staff and enables them to reflect on the causes Able to undertake a root cause analysis
2	Demonstrates ability to take part in a team discussion on risk assessment and risk management and to take part in work with the wider team to make organisational changes that will reduce risk and improve safety
3	Able to assess the risks across the system of care and to work with colleagues from different department or sectors to ensure safety across the health care system.
4	Shows support for junior colleagues who are involved in untoward events Is fastidious about following safety protocols and encourages junior colleagues to do the same Takes part in discussion of clinical incidents and reflects on causes

8. Team Working and Patient Safety

To develop the ability to work well in a variety of different teams – for example the ward team and the infection control team - and to contribute to discussion on the team's role in patient safety
To develop the leadership skills necessary to lead teams so that they are more effective and able to deliver better safer care

Knowledge	Assessment Methods	GMP
Knows the importance of effective collaboration	CbD	1
Describes the roles and responsibilities of members of the healthcare team	CbD	1
Outlines potential factors which might adversely affecting a doctor's performance and resources available to rectify these	CbD	1
Skills		
Practices with attention to the important steps of providing good continuity of care	Mini-CEX, CbD	1,3,4
Practices accurate, attributable note-keeping	Mini-CEX, CbD	1
Prepares patient lists with clarification of problems and ongoing care plan	Mini-CEX, CbD, MSF	1
Demonstrates contributions in the following areas: • Education and training • Assessment of colleagues performance (e.g. stress, fatigue) • High quality care • Effective handover of care between shifts and teams	Mini-CEX, CbD, MSF	1,2,3
Actively participates in interdisciplinary team meetings	Mini-CEX, CbD	3
Provides appropriate supervision to less experienced colleagues	Mini-CEX, CbD, MSF	3
Behaviours		
Encourages an open environment to foster concerns and issues about the functioning and safety of team working	CbD, MSF	3
Recognises and respects the request for a second opinion	CbD, MSF	3
Recognises the importance of induction for new members of a team	CbD, MSF	3
Recognises the importance of prompt and accurate information-sharing with Primary Care team or other appropriate agencies following hospital discharge	CbD, MSF	3
Encourages input into patient care from the wider multidisciplinary team and recognises the contribution from their different skills	CbD, MSF	

Level Descriptor

1 Demonstrates awareness of own contribution to patient care within a team and is able to outline the roles of other team members

Keeps records up-to-date and legible and relevant to the safe progress of the patient

Hands over care in a timely and effective manner. Demonstrates ability to convey to patients after a handover of care that although there is a different team, the care is continuous

Takes part in multi-disciplinary team meetings allowing all voices to be heard and considered. Fosters an atmosphere of collaboration

2 Demonstrates ability to discuss problems within a team to senior colleagues

Provides an analysis and plan for change

	Demonstrates ability to work with the virtual team to develop the ability to work well in a variety of different teams – for example the ward team and the infection control team - and to contribute to discussion on the team's role in patient safety
	Develops the leadership skills necessary to lead teams so that they are more effective and able to deliver better safer care
3	Demonstrates awareness of own contribution to patient safety within a team and is able to outline the roles of other team members
	Keeps records up-to-date and legible and relevant to the safe progress of the patient
	Hands over care in a timely and effective manner. Demonstrates ability to convey to patients after a handover of care that although there is a different team, the care is continuous
4	Leads multi-disciplinary team meetings allowing all voices to be heard and considered. Fosters an atmosphere of collaboration
	Demonstrates ability to discuss problems within a team to senior colleagues
	Provides an analysis and plan for change
	Demonstrates ability to work with the virtual team

9. Principles of Quality and Safety Improvement

To recognise the desirability of monitoring performance, learning from mistakes and adopting no blame culture in order to ensure high standards of care and optimise patient safety

Knowledge	Assessment Methods	GMP
Understands the elements of clinical governance	CbD	1
Recognises that governance safeguards high standards of care and facilitates the development of improved clinical services	CbD	1,2
Aware of local and national significant event reporting systems relevant to specialty	CbD	1
Recognises importance of evidence-based practice in relation to clinical effectiveness	CbD	1
Understands local health and safety protocols (fire, manual handling etc)	CbD	1
Understands risk associated with the trainee's specialty work including biohazards and mechanisms to reduce risk	CbD	1
Outlines the use of patient early warning systems to detect clinical deterioration where relevant to the trainee's clinical specialty	CbD	1
Keeps abreast of national patient safety initiatives including National Patient Safety Agency , NCEPOD reports, NICE guidelines etc	CbD	1
Skills		
Adopts strategies to reduce risk	CbD, DOPS, MSF	1,2
Assesses and analyse situations, services and facilities in order to minimise risk to patients and the public	CbD, DOPS, MSF	1,2
Contributes to quality improvement processes e.g:	CbD, DOPS, MSF	2
• Audit of personal and departmental/directorate/practice performance	CbD, DOPS, MSF	1
• Errors / discrepancy meetings	CbD, DOPS, MSF	1
• Critical incident and near miss reporting	CbD, DOPS, MSF	1
• Unit morbidity and mortality meetings	CbD, DOPS, MSF	1
• Local and national databases	CbD, DOPS, MSF	1
Maintains a portfolio of information and evidence, drawn from own medical practice	CbD, DOPS, MSF	1
Reflects regularly on own standards of medical practice in accordance with GMC guidance on licensing and revalidation	CbD, DOPS, MSF	1,2,3,4
Behaviours		
Shows willingness to participate in safety improvement strategies such as critical incident reporting	CbD, DOPS, MSF	1,2
Engages with an open no blame culture	CbD, DOPS, MSF	3
Responds positively to outcomes of audit and quality improvement	CbD, DOPS, MSF	1,2
Co-operates with changes necessary to improve service quality and safety	CbD, DOPS, MSF	3
Level Descriptor		

1	Understands that clinical governance is the over-arching framework that unites a range of quality improvement activities. This safeguards high standards of care and facilitates the development of improved clinical services Maintains personal portfolio
2	Able to define key elements of clinical governance Engages in audit
3	Demonstrates personal and service performance Designs audit protocols and completes audit loop
4	Engages in review of patient safety issues Engages in the Implementation of change to improve service Engages and guides others to embrace governance

10. Infection and Infection Control

To develop the ability to diagnose, investigate and treat bacterial, viral and opportunistic infections in patients with all forms of kidney disease irrespective of the mode of RRT

To manage and control infection in patients, including controlling the risk of cross-infection, appropriately managing infection in individual patients, and working appropriately within the wider community to manage the risk posed by communicable diseases

Knowledge	Assessment Methods	GMP
Understand the principles of infection control as defined by the GMC	CbD, mini-CEX	1
Understands the principles of preventing infection in high risk groups (e.g. managing antibiotic use to prevent Clostridium difficile) including understanding the local antibiotic prescribing policy	CbD, mini-CEX	1
Describe the opportunistic infection risk in an immunosuppressed patient	CbD, mini-CEX	1
Recall the causes and complications of dialysis line and peritoneal catheter sepsis	CbD, mini-CEX	1
Recalls strategies to prevent transmission for treatment of blood borne viral infections in CKD, dialysis and transplant patients	CbD, mini-CEX	1
Knows recommendations for vaccination in CKD, dialysis and transplant patients	CbD, mini-CEX	1
Understands the role of Notification within the UK and identifies the principle fortifiable diseases for UK and international purposes	CbD, mini-CEX	1
Understands the role of the Health Protection Agency and Consultants in Health Protection (previously Consultants in Communicable Disease Control – CCDC)	CbD, mini-CEX	1
Understands the role of the local authority in relation to infection control	CbD, mini-CEX	1
Skills		
Recognises the potential for infection in patients with kidney diseases	ACAT, mini-CEX, CbD	1
Assesses, appropriately investigates and treats infections in patients with acute and chronic kidney disease, patients on dialysis and transplant patients	ACAT, mini-CEX, CbD	1
Recognises potential for cross-infection in clinical settings	ACAT, mini-CEX, CbD	1
Practices aseptic technique whenever relevant	ACAT, mini-CEX, CbD	1
Manages dialysis related line sepsis	ACAT, mini-CEX, CbD	1
Assesses, appropriately investigates and treats infection including opportunistic infection in the immunosuppressed patient. Adjusts immunosuppressive therapy accordingly	ACAT, mini-CEX, CbD	1
Counsel patients on matters of infection risk, transmission and control	ACAT, mini-CEX, CbD	1,3
Actively engage in local infection control procedures	ACAT, mini-CEX, CbD	1
Actively engages in local infection control monitoring and reporting	ACAT, mini-CEX,	1

processes	CbD	
Prescribes antibiotics according to local antibiotic guidelines	ACAT, mini-CEX, CbD	1
Able to counsel patients about vaccination requirements and travel recommendations	mini-CEX, CbD	1,3
Behaviours		
Encourages all staff, patients and relatives to observe infection control principles	ACAT, MSF	1,3
Explains the risk of bacterial, viral and opportunistic infection to patients and carers and understands the potential impact on home dialysis patients	ACAT, MSF	1,3

Level Descriptor

1 Always follows local infection control protocols, including washing hands before and after seeing all patients

Is able to explain infection control protocols to students and to patients and their relatives

Aware of infections of concern, including MRSA and C difficile

Aware of the risks of nosocomial infections

Understands the links between antibiotic prescription and the development of nosocomial infections

Always discusses antibiotic use with a more senior colleague

2 Demonstrates ability to perform simple clinical procedures utilising aseptic technique

Manages simple common infections in patients using first-line treatments

Communicates effectively to the patient the need for treatment and any prevention messages to prevent re-infection or spread

Liaises with diagnostic departments in relation to appropriate investigations and tests

3 Demonstrates an ability to perform more complex clinical procedures whilst maintaining aseptic technique throughout

Identifies potential for infection amongst high-risk patients obtaining appropriate investigations and considering the use of second line therapies

Communicates effectively with patients and their relatives with regard to the infection, the need for treatment and any associated risks of therapy

Works effectively with diagnostic departments in relation to identifying appropriate investigations and monitoring therapy

Works in collaboration with external agencies in relation to reporting common notifiable diseases, and collaborating over any appropriate investigation or management

4 Demonstrates an ability to perform most complex clinical procedures whilst maintaining full aseptic precautions, including those procedures which require multiple staff in order to perform the procedure satisfactorily

Identifies the possibility of unusual and uncommon infections and the potential for atypical presentation of more frequent infections. Effectively manages these cases with potential use of tertiary treatments being undertaken in collaboration with infection control specialists

Works in collaboration with diagnostic departments to investigate and manage the most complex types of infection including those potentially requiring isolation facilities

Works in collaboration with external agencies to manage the potential for infection control within the wider community including communicating effectively with the general public and liaising with regional and national bodies where appropriate

11. Health Promotion and Public Health

To develop the ability to work with individuals and communities to reduce levels of ill health, remove inequalities in healthcare provision and improve the general health of a community

Knowledge	Assessment Methods	GMP
Understands the factors which influence the incidence and prevalence of common conditions	ACAT, CbD, mini-CEX	1
Understands the factors which influence health and illness – psychological, biological, social, cultural and economic especially poverty	ACAT, CbD, mini-CEX	1
Understands the influence of lifestyle on health and the factors that influence an individual to change their lifestyle	ACAT, CbD, mini-CEX	1
Understands the influence of culture and beliefs on patients' perceptions of health	ACAT, CbD, mini-CEX	1
Understands the purpose of screening programmes and knows in outline the common programmes available within the UK	CbD, mini-CEX	1
Understands the positive and negative effects of screening on the individual	CbD, mini-CEX	1
Understands the possible positive and negative implications of health promotion activities (e.g. immunisation)	CbD, mini-CEX	1
Understands the relationship between the health of an individual and that of a community and vice versa	CbD, mini-CEX	1
Knows the key local concerns about health of communities such as smoking and obesity and the potential determinants	ACAT, CbD, mini-CEX	1
Understands the role of other agencies and factors, including the impact of globalisation in increasing disease and in protecting and promoting health	ACAT, CbD, mini-CEX	1
Demonstrates knowledge of the determinants of health worldwide and strategies to influence policy relating to health issues, including the impact of the developed world strategies on the third world	ACAT, CbD, mini-CEX	1
Outlines the major causes of global morbidity and mortality and effective, affordable interventions to reduce these	ACAT, CbD, mini-CEX	1
Recalls the effect of addictive and self harming behaviours, especially substance misuse and gambling, on personal and community health and poverty	ACAT, CbD, mini-CEX	1
Skills		
Identifies opportunities to prevent ill health and disease in patients	ACAT, CbD, mini-CEX, PS	1,2
Identifies opportunities to promote changes in lifestyle and other actions which will positively improve health and/or disease outcomes.	ACAT, CbD, mini-CEX	1,2
Identifies the interaction between mental, physical and social wellbeing in relation to health	ACAT, CbD, mini-CEX	1
Counsels patients appropriately on the benefits and risks of screening and health promotion activities	ACAT, CbD, mini-CEX, PS	1,3
Identifies patients' ideas, concerns and health beliefs regarding screening and health promotions programmes and is capable of appropriately responding to these	CbD, mini-CEX,	1,3

Works collaboratively with other agencies to improve the health of communities	CbD, mini-CEX	1
Recognises and is able to balance autonomy with social justice	CbD, mini-CEX	1,3
Behaviours		
Engages in effective team-working around the improvement of health	ACAT, CbD, MSF	1,3
Encourages, where appropriate, screening to facilitate early intervention	CbD	1

Level Descriptor	
1	Discusses with patients others factors which could influence their personal health Maintains own health and is aware of own responsibility as a doctor for promoting healthy approach to life
2	Supports an individual in a simple health promotion activity (e.g. smoking cessation)
3	Knowledge of local public health and communicable disease networks Communicates to an individual and their relatives information about the factors which influence their personal health Supports small groups in a simple health promotion activity (e.g. smoking cessation) Provides information to an individual about a screening programme and offers information about its risks and benefits
4	Discusses with small groups the factors that have an influence on their health and describes steps they can undertake to address these Provides information to an individual about a screening programme, offering specific guidance in relation to their personal health and circumstances concerning the factors that would affect the risks and benefits of screening to them as an individual Engages with local or regional initiatives to improve individual health and reduce inequalities in health between communities

12. Principles of Medical Ethics and Confidentiality

To know, understand and apply appropriately the principles, guidance and laws regarding medical ethics and confidentiality

Knowledge	Assessment Methods	GMP
Demonstrates knowledge of the principles of medical ethics	CbD, mini-CEX	1
Defines the provisions of the Data Protection Act and Freedom of Information Act	CbD, mini-CEX	1
Defines the role of the Caldicott Guardian within an institution and outlines the process of attaining Caldicott approval for audit or research	CbD, mini-CEX	1
Outlines the procedures for seeking a patient's consent for disclosure of identifiable information	CbD, mini-CEX	1
Outlines situations where patient consent, while desirable, is not required for disclosure e.g. communicable diseases, public interest	CbD, mini-CEX	1
Recalls the obligations for confidentiality following a patient's death	CbD, mini-CEX	1
Recognises the problems posed by disclosure in the public interest, without patient's consent	CbD, mini-CEX	1
Recognises the factors influencing ethical decision making: religion, moral beliefs, cultural practices	CbD, mini-CEX	1
Do not resuscitate: defines the standards of practice defined by the GMC when deciding to withhold or withdraw life-prolonging treatment	CbD, mini-CEX	1
Outlines the principles of the Mental Capacity Act	CbD, mini-CEX	1
Skills		
Uses and shares information with the highest regard for confidentiality, and encourages such behaviour in other members of the team	CbD, MSF	1,3
Uses and promotes strategies to ensure confidentiality is maintained e.g. anonymisation	CbD, MSF	1
Counsels patients on the need for information distribution to members of the immediate healthcare team	CbD, MSF	1,3
Counsels patients, family, carers and advocates tactfully and effectively when making decisions about resuscitation status, and withholding or withdrawing treatment	CbD, MSF	1,3,4
Behaviours		
Encourages ethical reflection in others	CbD, MSF	3
Shows willingness to seek advice of peers, legal bodies, and the GMC in the event of ethical dilemmas over disclosure and confidentiality	CbD, MSF	3
Respects patient's requests for information not to be shared, unless this puts the patient, or others, at risk of harm	CbD, MSF	3,4
Shows willingness to share information about their care with patients, unless they have expressed a wish not to receive such information	CbD, , MSF	3
Shows willingness to seek the opinion of others when making decisions about resuscitation status, and withholding or withdrawing treatment	CbD, MSF	3

Level Descriptor	
1	Uses and shares information with the highest regard for confidentiality adhering to the Data Protection Act and Freedom of Information Act in addition to guidance given by the GMC Familiarity with the principles of the Mental Capacity Act Participates in decisions about resuscitation status and withholding or withdrawing treatment
2	Counsels patients on the need for information distribution within members of the immediate healthcare team and seek patients' consent for disclosure of identifiable information
3	Defines the role of the Caldicott Guardian within an institution, and outlines the process of attaining Caldicott approval for audit or research
4	Able to assume a full role in making and implementing decisions about resuscitation status and withholding or withdrawing treatment

13. Valid Consent

To obtain valid consent from the patient

Knowledge	Assessment Methods	GMP
Outlines the guidance given by the GMC on consent, in particular:		
• Understands that consent is a process that may culminate in, but is not limited to, the completion of a consent form	CbD	1
• Understands the particular importance of considering the patient's level of understanding and mental state (and also that of the parents, relatives or carers when appropriate) and how this may impair their capacity for informed consent	CbD	1,3
Skills		
Presents all information to patients (and carers) in a format they understand, allowing time for reflection on the decision to give consent	CbD, DOPS, MSF	1,3
Provides a balanced view of all care options	CbD, MSF	1,3
Behaviours		
Respects a patient's rights of autonomy even in situations where their decision might put them at risk of harm	CbD, MSF	1,3,4
Avoids exceeding the scope of authority given by a patient	CbD, MSF	4
Avoids withholding information relevant to proposed care or treatment in a competent adult	CbD, MSF	3
Shows willingness to seek advance directives	CbD, MSF	3
Shows willingness to obtain a second opinion, senior opinion, and legal advice in difficult situations of consent or capacity	CbD, MSF	3,4
Informs a patient and seeks alternative care where personal, moral or religious belief prevents a usual professional action	CbD, MSF	1,3

Level Descriptor

1	Obtains consent for straightforward treatments with appropriate regard for patient's autonomy
2	Able to explain complex treatments meaningfully in layman's terms and thereby to obtain appropriate consent
3	Obtains consent in "grey-area" situations where the best option for the patient is not clear
4	Obtains consent in all situations even when there are problems of communication and capacity

14. Legal Framework for Practice

To understand the legal framework within which healthcare is provided in the UK and/or devolved administrations in order to ensure that personal clinical practice is always provided in line with this legal framework

Knowledge	Assessment Methods	GMP
All decisions and actions must be in the best interests of the patient	ACAT, CbD, mini-CEX	1
Understands the legislative framework within which healthcare is provided in the UK and/or devolved administrations, in particular death certification and the role of the Coroner/Procurator Fiscal; child protection legislation; mental health legislation (including powers to detain a patient and giving emergency treatment against a patient's will under common law); advanced directives and living Wills; withdrawing and withholding treatment; decisions regarding resuscitation of patients; surrogate decision making; organ donation and retention; communicable disease notification; medical risk and driving; Data Protection and Freedom of Information Acts; provision of continuing care and community nursing care by a local authorities	ACAT, CbD, mini-CEX	1,2
Understands that there are differences between health related legislation in the four countries of the UK	CbD	1
Understands sources of medical legal information	ACAT, CbD, mini-CEX	1
Understands disciplinary processes in relation to medical malpractice	ACAT, CbD, mini-CEX, MSF	1
Understands the role of the medical practitioner in relation to personal health and substance misuse, including understanding the procedure to be followed when such abuse is suspected	ACAT, CbD, mini-CEX, MSF	1
Skills		
Ability to cooperate with other agencies with regard to legal requirements, including reporting to the Coroner's/Procurator Officer, the Police or the proper officer of the local authority in relevant circumstances	ACAT, CbD, mini-CEX	1
Ability to prepare appropriate medical legal statements for submission to the Coroner's Court, Procurator Fiscal, Fatal Accident Inquiry and other legal proceedings	CbD, MSF	1
Is prepared to present such material in Court	CbD, mini-CEX	1
Incorporates legal principles into day-to-day practice	ACAT, CbD, mini-CEX	1
Practices and promotes accurate documentation within clinical practice	ACAT, CbD, mini-CEX	1,3
Behaviour		
Shows willingness to seek advice from the employer, appropriate legal bodies (including defence societies), and the GMC on medico-legal matters	CbD, mini-CEX, MSF	1
Promotes informed reflection on legal issues by members of the team; all decisions and actions must be in the best interests of the patient	CbD, mini-CEX, MSF	1,3

Level Descriptor	
1	Knows the legal framework associated with medical qualification and medical practice and the responsibilities of registration with the GMC Knows the limits to professional capabilities, particularly those of pre-registration doctors
2	Identifies to Senior Team Members cases which should be reported to external bodies and where appropriate, and initiates that report Identifies with Senior Members of the Clinical Team situations where you feel consideration of medical legal matters may be of benefit; is aware of local Trust procedures around substance abuse and clinical malpractice
3	Works with external strategy bodies around cases that should be reported to them; collaborates with them on complex cases preparing brief statements and reports as required Actively promotes discussion on medico-legal aspects of cases within the clinical environment Participates in decision making with regard to resuscitation decisions and around decisions related to driving, discussing the issues openly but sensitively with patients and relatives
4	Works with external strategy bodies around cases that should be reported to them; collaborates with them on complex cases providing full medical legal statements as required and present material in court where necessary Leads the clinical team in ensuring that medico-legal factors are considered openly and consistently wherever appropriate, in the care and best interests of the patient; ensures that patients and relatives are involved openly in all such decisions

15. Ethical Research

To understand the value and purpose of medical research and to develop the skills required to critically assess research evidence

To maintain an interest in research findings or engaging or participating in research activities

Knowledge	Assessment Methods	GMP
Outline the GMC guidance on good practice in research	CbD	1
Outline the differences between audit and research	CbD	1
Describe how clinical guidelines are produced	CbD	1
Demonstrate a knowledge of research principles including an understanding of the Declaration of Helsinki and the principles of the Human Tissue Act	CbD	1
Outline the principles of formulating a research question and designing a project	CbD	1
Comprehend principal qualitative, quantitative, bio-statistical and epidemiological research methods	CbD	1
Outline sources of research funding	CbD	1
Outline the legal l frameworks governing NHS - including data handling , storage of human tissue etc	CbD	1
Understands the journey of evidence from the Laboratory to the Clinic (Evidence/Translation and implementation of Research findings)	CbD	1
Skills		
Undertakes a Good Clinical Practise Guideline Course and obtains a Certificate of Achievement	CbD, MSF	1,2
Develops critical appraisal skills and applies these when reading literature	CbD, , MSF	1
Demonstrates the ability to write a scientific paper	CbD, MSF	1
Applies for appropriate ethical research approval	CbD, MSF	1
Demonstrates the use of literature databases	CbD, MSF	1
Demonstrates good verbal and written presentations skills	CbD, MSF	1
Understands the difference between population-based assessment and unit-based studies and is able to evaluate outcomes for epidemiological work	CbD, MSF	1
Analysis of simple data	CbD,	1
Behaviours		
Recognises the ethical responsibilities in conducting research with honesty and integrity, safeguarding the interests of the patient and obtaining ethical approval when appropriate	CbD, MSF	1
Follows guidelines on ethical conduct in research and consent for research	CbD, MSF	1
Shows willingness to the promotion of involvement in research	CbD, MSF	1
Aware of responsibility to update records required for research projects	CbD, , MSF	1
Level Descriptor		

1	Defines ethical research and demonstrates awareness of GMC guidelines
	Differentiates audit and research and understands the different types of research approach e.g. qualitative and quantitative
	Knows how to use databases
2	Demonstrates good presentation and writing skills
	Demonstrates critical appraisal skills and demonstrates ability to critically appraise a published paper
3	Demonstrates ability to apply for appropriate ethical research approval
	Demonstrates knowledge of research organisation and funding sources
	Demonstrates ability to write a scientific paper
4	Provides leadership in research
	Promotes research activity
	Formulates and develops research pathways

16. Managing Long-Term Conditions and Promoting Patient Self-Care

To work with patients and use their expertise to manage their condition collaboratively and in partnership, with mutual benefit

Knowledge	Assessment Methods	GMP
Describes the natural history of diseases that run a chronic course	CbD	1
Defines the role of rehabilitation services and the multi-disciplinary team to facilitate long-term care	CbD	1
Outlines the concept of quality of life and how this can be measured	CbD	1
Outlines the concept of patient self-care	CbD	1
Knows, understands and is able to compare medical and social models of disability	CbD	1
Understands the relationship between local health, educational and social service provision, including the voluntary sector	CbD	1
Skills		
Develops and agrees on a management plan with the patient (and carers), ensuring comprehension to maximise self-care within care pathways when relevant	DOPS, MSF	1,3
Develops and sustains supportive relationships with patients with whom care will be prolonged	DOPS, MSF	1,4
Provides effective patient education, with the support of the multi-disciplinary team	DOPS, MSF	1,3,4
Promotes and encourages involvement of patients in appropriate support networks, both to receive support and to give support to others	DOPS, MSF	1,3
Encourages and supports patients in accessing appropriate information	DOPS, MSF	1,3
Where possible, provides the relevant and evidence-based information in an appropriate medium to enable sufficient choice	DOPS, MSF	1,3
Behaviours		
Shows willingness to act as a patient advocate	DOPS, MSF	3,4
Recognises the impact of long term conditions on the patient, family and friends	DOPS, MSF	1
Recognises that some patient with kidney disease, dialysis and transplant develop depression. Treats and refers appropriately to Psychologists and Psychiatrists.	DOPS, MSF	1,3,4
Recognises and respects the role of family, friends and carers in the management of the patient with a long term condition	DOPS, MSF	1
Shows willingness to maintain a close working relationship with other members of the multi-disciplinary team, primary and community care	DOPS, MSF	1,3,4
Shows willingness to facilitate access to the appropriate training and skills in order to develop the patient's confidence and competence to self care	DOPS, MSF	1,3
Ensures equipment and devices relevant to the patient's care are discussed	DOPS, MSF	1,3,4

Puts patients in touch with the relevant agency, including the voluntary sector from where they can procure the items as appropriate	DOPS, MSF	1,3
Provides the relevant tools and devices when possible	DOPS, MSF	1,3,4

Level Descriptor

1 Describes relevant long term conditions

Understands that “quality of life” is an important goal of care and that this may have different meanings for each patient

Is aware of the need for promotion of patient self care and independence

Helps the patient to develop an active understanding of their condition and how they can be involved in self management

2 Demonstrates awareness of management of relevant long term conditions

Is aware of the tools and devices that can be used in long term conditions

Is aware of external agencies that can improve patient care and/or provide support

Provides the patient with evidence based information and assists the patient in understanding this material; utilises the team to promote excellent patient care

3 Develops management plans in partnership with the patient that are pertinent to the patient’s long term condition

Can use relevant tools and devices in improving patient care

Engages with relevant external agencies to promote improving patient care

4 Provides leadership within the multidisciplinary team that is responsible for management of patients with long term conditions

Helps the patient develop and strengthen networks

17. Evidence and Guidelines

To progressively develop the ability to make the optimal use of current best evidence in making decisions about the care of patients

To progressively develop the ability to construct evidence based guidelines in relation to medical practice

Knowledge	Assessment Methods	GMP
Understands of the application of statistics in scientific medical practice	CbD, MSF	1
Understands the advantages and disadvantages of different study methodologies (randomised control trials, case controlled cohort etc)	CbD, MSF	1
Understands the principles of critical appraisal	CbD, MSF	1
Understands levels of evidence and quality of evidence	CbD, MSF	1
Understands the role and limitations of evidence in the development of clinical guidelines and protocols	CbD, MSF	1
Understands the advantages and disadvantages of guidelines and protocols	CbD, MSF	1
Understands the processes that result in nationally applicable guidelines (e.g. NICE and SIGN)	CbD, MSF	1
Skills		
Ability to search the medical literature including use of PubMed, Medline, Cochrane reviews and the internet	CbD	1
Appraises retrieved evidence to address a clinical question	CbD	1
Applies conclusions from critical appraisal into clinical care	CbD	1
Identifies the limitations of research	CbD	1
Recognises the importance of review and updating of local (and national) guidelines of good practice using the principles of evidence based medicine	CbD	1
Behaviours		
Keeps up to date with national reviews and guidelines of practice (e.g. NICE and SIGN)	CbD, DOPS, MSF	1
Aims for best clinical practice (clinical effectiveness) at all times, responding to evidence-based medicine	CbD, DOPS, MSF	1
Recognises the occasional need to practise outside clinical guidelines	CbD, DOPS, MSF	1
Encourages discussion amongst colleagues on evidence-based practice	CbD, DOPS, MSF	1

Level Descriptor

1 Participates in a departmental or other local journal club
Critically reviews an article to identify the level of evidence

2 Leads a departmental or other local journal club
Undertakes a literature review in relation to a clinical problem or topic

3 Produces a review article on a clinical topic, having reviewed and appraised the relevant literature

4 Performs a systematic review of the medical literature
Contributes to the development of local or national clinical guidelines

18. Audit

To develop the ability to perform an audit of clinical practice and to apply the findings appropriately and complete the audit cycle

Knowledge	Assessment Methods	GMP
Understands the different methods of obtaining data for audit, including patient feedback questionnaires, hospital sources and national reference data	AA, CbD	1
Understands the role of audit (improving patient care and services, risk management etc)	AA, CbD	1
Understands the steps involved in completing the audit cycle	AA, CbD	1
Understands the working and uses of national and local databases used for audit, such as specialty data collection systems, renal registries etc; Understands the working and uses of local and national systems available for reporting and learning from clinical incidents and near misses in the UK	AA, CbD	1
Skills		
Designs, implements and completes audit cycles	AA, CbD	1,2
Contributes to local and national audit projects as appropriate (e.g. Renal Registry, NCEPOD, SASM)	AA, CbD	1,2
Supports audit by junior medical trainees and within the multi-disciplinary team	AA, CbD	1,2
Behaviours		
Recognises the need for audit in clinical practice to promote standard setting and quality assurance	AA, CbD	1,2

Level Descriptor	
1	Attendance at departmental audit meetings Contributes data to a local or national audit Suggests ideas for local audits
2	Identifies a problem and develop standards for a local audit Describes the PDSA (plan, do, study, act) audit cycle and takes an audit through the first steps
3	Compares the results of an audit with criteria and standards to reach conclusions Uses the findings of an audit to develop and implement change Organises or leads a departmental audit meeting Understands the links between audit and quality improvement
4	Leads a complete clinical audit cycle, including development of conclusions, the changes needed for improvement, implementation of findings and re-audit to assess the effectiveness of the changes Becomes audit lead for an institution or organisation

19. Relationships with Patients and Communication within a Consultation

To communicate effectively and sensitively with patients, relatives and carers

Knowledge	Assessment Methods	GMP
Is able to structure an interview appropriately	CbD	1
Demonstrates knowledge of the importance of the patient's background, culture, education and preconceptions (ideas, concerns, expectations) to the process	CbD	1
Skills		
Establishes a rapport with the patient and any relevant others (e.g. carers)	CbD, DOPS, MSF	1,3
Listens actively in an appropriate environment and questions sensitively to guide the patient and to clarify information	CbD, DOPS, MSF	1,3
Identifies and manages communication barriers, tailoring language to the individual patient and using interpreters when indicated	CbD, DOPS, MSF	1,3
Delivers information compassionately, being alert to and managing both own and patient's emotional response (anxiety, antipathy etc)	CbD, DOPS, MSF	1,3,4
Uses and refers patients to appropriate written and other information sources	CbD, DOPS, MSF	1,3
Checks the patient's/carer's understanding, ensuring that all their concerns/questions have been covered	CbD, DOPS, MSF	1,3
Indicates when the interview is nearing its end and concludes with a summary	CbD, DOPS, MSF	1,3
Makes accurate contemporaneous records of the discussion	CbD, DOPS, MSF	1,3
Manages follow-up effectively		
Behaviours		
Approaches the situation with courtesy, empathy, compassion and professionalism, and especially with appropriate body language, acting as an equal not a superior	CbD, DOPS, MSF	1,3,4
Is willing to inform patients how to arrange a second opinion	CbD, DOPS, MSF	1,3
Remembers that the patient is central to the interview	CbD, DOPS, MSF	1,3

Level Descriptor

1	Conducts simple interviews with due empathy and sensitivity and writes accurate records thereof
2	Conducts interviews on complex concepts satisfactorily, confirming that accurate two-way communication has occurred
3	Handles communication difficulties appropriately, involving others as necessary; establishes excellent rapport
4	Shows good of patient communication in all situations, anticipating and managing any difficulties which may occur

20. Breaking Bad News

To recognise the fundamental importance of breaking bad news

To develop strategies for skilled delivery of bad news according to the needs of individual patients and their relatives / carers

Knowledge	Assessment Methods	GMP
How bad news is delivered irretrievably affects the subsequent relationship with the patient	CbD	1
Every patient may desire different levels of explanation and have different responses to bad news	CbD	1,4
That bad news is confidential but the patient may wish to be accompanied	CbD	1
Once the news is given, patients are unlikely to take anything subsequent in, so an early further appointment should be made	CbD	
Breaking bad news can be extremely stressful for the doctor or professional involved	CbD	1,3
The interview at which bad news is given may be an educational opportunity	CbD	1
It is important to: • Prepare for breaking bad news • Set aside sufficient uninterrupted time • Choose an appropriate private environment and ensure that there will be no unplanned disturbances • Have sufficient information regarding prognosis and treatment • Ensure the individual has appropriate support if desired • Structure the interview • Be honest, factual, realistic and empathic • Be aware of relevant guidance documents	CbD	1,3
'Bad news' may be expected or unexpected and it cannot always be predicted	CbD	1
Sensitive communication of bad news is an essential part of professional practice	CbD	1
'Bad news' has different connotations depending on the context, individual, social and cultural circumstances	CbD	1
That a post mortem examination may be required and understand what this involves	CbD	1
The local organ retrieval process	CbD	1
Skills		
Structures the interview e.g: • Sets the scene • Establishes understanding • Discusses diagnosis, implications, treatment, prognosis and subsequent care	CbD, DOPS, MSF	1,3
Demonstrate to others good practice in breaking bad news	CbD, DOPS, MSF	1,3
Involve patients and carers in decisions regarding their future	CbD, DOPS, MSF	1,3

management		
Encourage questioning and ensure comprehension	CbD, DOPS, MSF	1,3
Respond to verbal and visual cues from patients and relatives	CbD, DOPS, MSF	1,3
Act with empathy, honesty and sensitivity avoiding undue optimism or pessimism	CbD, DOPS, MSF	1,3
Behaviours		
Take leadership in breaking bad news	CbD, DOPS, MSF	1,3
Respect the different ways people react to bad news	CbD, DOPS, MSF	1,3
Level Descriptor		
1 Recognises when bad news must be imparted Recognises the need to develop specific skills Requires guidance to deal with most cases		
2 Able to break bad news in planned settings Prepares well for interview Prepares patient to receive bad news Responsive to patient reactions		
3 Able to break bad news in unexpected and planned settings Provides a clear structure to the interview Establishes what the patient wants to know and ensures understanding Able to conclude the interview		
4 Skilfully delivers bad news in any circumstance including adverse events Arranges follow up as appropriate Able to teach others how to break bad news		

21. Complaints and Medical Error

To recognise the causes of error and to learn from them; to realise the importance of honesty and effective apology and to take a leadership role in the handling of complaints

Knowledge	Assessment Methods	GMP
Basic consultation techniques and skills described for Foundation programme and to include:	CbD	1
• Defines the local complaints procedure	CbD	1
• Recognises factors likely to lead to complaints (poor communication, dishonesty etc)	CbD	1
• Adopts behaviour likely to prevent complaints	CbD	1
• Deals with dissatisfied patients or relatives	CbD	1
• Recognises when something has gone wrong and identifies appropriate staff to communicate this with	CbD	1
• Acts with honesty and sensitivity in a non-confrontational manner	CbD	1
• Outlines the principles of an effective apology	CbD	1
• Identifies sources of help and support when a complaint is made about oneself or a colleague	CbD	1
Skills		
Contributes to processes whereby complaints are reviewed and learned from	CbD, DOPS, MSF	1
Explains comprehensibly to the patient the events leading up to a medical error	CbD, DOPS, MSF	1,3
Delivers an appropriate apology	CbD, DOPS, MSF	1,3,4
Distinguishes between system and individual errors	CbD, DOPS, MSF	1
Shows an ability to learn from previous errors	CbD, DOPS, MSF	1
Behaviours		
Recognises own responsibility regarding complaint issues	CbD, DOPS, MSF	1
Recognises the impact of complaints and medical error on staff, patients, and the National Health Service	CbD, DOPS, MSF	1,3
Contributes to a fair and transparent culture around complaints and errors	CbD, DOPS, MSF	1
Recognises the rights of patients, family members and carers to make a complaint	CbD, DOPS, MSF	1,4
Level Descriptor		
1 If an error is made, immediately rectifies it and/or reports it Apologises to patient for any failure as soon as it is recognised, however small Understands and describes the local complaints procedure Recognises need for honesty in management of complaints Responds promptly to concerns that have been raised Understands the importance of an effective apology Learns from errors		

2	Manages conflict without confrontation Recognises and responds to the difference between system failure and individual error
3	Recognises and manages the effects of any complaint within members of the team
4	Provides timely, accurate written responses to complaints when required At an appropriate level, demonstrates leadership in the management of complaints

22. Communication with Colleagues and Cooperation

To recognise and accept the responsibilities and role of the doctor in relation to other healthcare professionals

To communicate effectively with other professionals as appropriate

Knowledge	Assessment Methods	GMP
Understands the section in "Good Medical Practice" on Working with Colleagues, in particular:	CbD	1
• The roles played by all members of a multi-disciplinary team • The features of good team dynamics • The principles of effective inter-professional collaboration to optimise patient, or population, care	CbD	
Skills		
Communicates accurately, clearly, promptly and comprehensively with relevant colleagues by means appropriate to the urgency of a situation (telephone, email, letter etc), especially where responsibility for a patient's care is transferred	CbD, DOPS, MSF	1,3
Utilises the expertise of the whole multi-disciplinary team as appropriate, ensuring when delegating responsibility that appropriate supervision is maintained	CbD, DOPS, MSF	1,3
Participates in and co-ordinates an effective hospital at night team when relevant	CbD, DOPS, MSF	1
Communicates effectively with administrative bodies and support organisations	CbD, DOPS, MSF	1,3
Employs behavioural management skills with colleagues to prevent and resolve conflict	CbD, DOPS, MSF	1,3
Behaviours		
Is aware of the importance of, and takes part in, multi-disciplinary work, including adoption of a leadership role when appropriate	CbD, DOPS, MSF	3
Fosters a supportive and respectful environment where there is open and transparent communication between all team members	CbD, DOPS, MSF	1,3
Ensures appropriate confidentiality is maintained during communication with any member of the team	CbD, DOPS, MSF	1,3,4
Recognises the need for a healthy work/life balance for the whole team, including yourself, but take any leave yourself only after giving appropriate notice to ensure that cover is in place	CbD, DOPS, MSF	1
Recognises the manifestations of stress in self and others and knows where to look for support	MSF	1,3
Is prepared to accept additional duties in situations of unavoidable and unpredictable absence of colleagues	CbD, DOPS, MSF	2,3

Level Descriptor

1 Accepts his/her role in the healthcare team and communicates appropriately with all relevant members thereof

2 Fully recognises the role of, and communicates appropriately with, all relevant potential team members (individual and corporate)

3 Able to predict and manage conflict between members of the healthcare team

4	Able to take a leadership role as appropriate, fully respecting the skills, responsibilities and viewpoints of all team members

23. Teaching, Training and Supervision

To progressively develop the ability to teach to a variety of different audiences in a variety of different ways

To progressively be able to assess the quality of the teaching

To progressively be able to train and supervise a variety of different trainees in a variety of different ways

To progressively be able to plan and deliver a training programme with appropriate assessments

Knowledge	Assessment Methods	GMP
Outlines adult learning principles relevant to medical education: • Aware of different learning styles • Construction of educational objectives • Use of effective questioning techniques • Varying teaching format and stimulus	CbD	1
Outline the structure of the effective appraisal interview	CbD	1
Understands the importance of individual performance review and techniques and processes	CbD	1
Differentiates between appraisal, assessment and revalidation	CbD	1
Outline the workplace-based assessments in use	CbD,	1
Outline the appropriate local course of action to assist the failing trainee	CbD	1
Skills		
Vary teaching format and stimulus, appropriate to situation and subject	CbD	1
Provide effective feedback after teaching, and promote learner reflection	CbD, TO	1,3
Conducts effective appraisal	CbD, MSF	1
Demonstrate effective lecture, presentation, small group and bed side teaching sessions	CbD	1,3
Provide appropriate career advice, or refer trainee to an alternative effective source of career information	CbD, TO	1,4
Be able to lead departmental teaching programmes including journal clubs	CbD	1
Supervises the work of less experienced colleagues and provided appropriate feedback on performance	CbD, TO	1
Recognise the failing trainee	CbD, TO	1
Participate in strategies aimed at improving patient education e.g. talking at support group meetings	CbD	1
Behaviours		
Recognise the importance of the role of the physician as an educator within the multi-professional healthcare team	CbD, DOPS, MSF	1
Demonstrate willingness to teach trainees and other health and social	CbD, DOPS, MSF	1,3

workers in a variety of settings to maximise effective communication and practical skills		
Encourage discussions in the clinical settings to colleagues to share knowledge and understanding	CbD, DOPS, MSF	1,3
Show willingness to participate in workplace-based assessments	CbD, DOPS, MSF	1
Maintain honesty and objectivity during appraisal and assessment	CbD, DOPS, MSF	1,4
Show willingness to take up formal tuition in medical education and respond to feedback obtained after teaching sessions	CbD, DOPS, MSF	1
Recognise the importance of personal development as a role model to guide trainees in aspects of good professional behaviour	CbD, DOPS, MSF	1

Level Descriptor

1 Develops basic PowerPoint presentation to support educational activity
Delivers small group teaching to medical students, nurses or colleagues
Able to seek and interpret simple feedback following teaching

2 Able to supervise a medical student, nurse or colleague through a procedure
Able to perform a workplace based assessment including being able to give effective feedback

3 Able to devise a variety of different assessments (e.g. multiple choice questions, work place based assessments)
Able to appraise a medical student, nurse or colleague
Able to act as a mentor to a medical student, nurses or colleague

4 Able to plan, develop and deliver educational activities with clear objectives and outcomes
Able to plan, develop and deliver an assessment programme to support educational activities

24. Personal Behaviour

To develop the behaviours that will enable the doctor to become a senior leader able to deal with complex situations and difficult behaviours and attitudes

To work increasingly effectively with many teams and to be known to put the quality and safety of patient care as a prime objective

To develop the attributes of someone who is trusted to be able to manage complex human, legal and ethical problems

To become someone who is trusted and is known to act fairly in all situations

Knowledge	Assessment Methods	GMP
Recalls and builds upon the competencies defined in the Foundation Programme:	CbD	1
• Deals with inappropriate patient and family behaviour	CbD	1,3
• Respects the rights of children, elderly, people with physical, mental, learning or communication difficulties	CbD	1,3
• Adopts a non-discriminatory approach	CbD	1
• Places needs of patients above own convenience	CbD	1
• Behaves with honesty and probity	CbD	1
• Acts with honesty and sensitivity in a non-confrontational manner	CbD	1
• Defines the concept of modern medical professionalism	CbD	1
• Outlines the relevance of professional bodies (Royal Colleges, JRCPTB, GMC, Postgraduate Dean, BMA, specialist societies, medical defence organisations)	CbD	1
Skills		
Practices with: • Integrity • Compassion • Altruism • Continuous improvement • Excellence • Respect of cultural and ethnic diversity • Regard to the principles of equity	CbD, DOPS, MSF	1
Works in partnership with members of the wider healthcare team	CbD, DOPS, MSF	1,3
Promotes awareness of the doctor's role in utilising healthcare resources optimally	CbD, DOPS, MSF	1
Recognises and responds appropriately to unprofessional behaviour in others	CbD, DOPS, MSF	1
Is able to provide specialist support to hospital and community based services	CbD, DOPS, MSF	1
Is able to handle enquiries from the press and other media effectively	CbD, DOPS, MSF	1,3
Behaviours		
Recognises the need to use all healthcare resources prudently and appropriately	CbD, DOPS, MSF	1

Recognises the need to improve clinical leadership and management skill	CbD, DOPS, MSF	1
Recognises situations when it is appropriate to involve professional and regulatory bodies	CbD, DOPS, MSF	1
Shows willingness to act as a mentor, educator and role model	CbD, DOPS, MSF	1
Is willing to accept mentoring as a positive contribution to promote personal professional development	CbD, DOPS, MSF	1
Participates in professional regulation	CbD, DOPS, MSF	1
Recognises the right for equity of access to healthcare	CbD, DOPS, MSF	1
Recognises need for reliability and accessibility throughout the healthcare team	CbD, DOPS, MSF	1

Level Descriptor

1 Works work well within the context of multi-professional teams

Listens well to others and takes other view points into consideration

Supports patients and relatives at times of difficulty e.g. after receiving difficult news

Is polite and calm when called or asked to help

2 Responds to criticism positively and seeks to understand its origins and works to improve

Praises staff when they have done well and where there are failings in delivery of care provides constructive feedback

Wherever possible, involves patients in decision making

3 Recognises when other staff are under stress and not performing as expected and provides appropriate support for them

Takes action necessary to ensure that patient safety is not compromised

4 Helps patients who show anger or aggression with staff or with their care or situation and works with them to find an approach to manage their problem

25. Management and NHS Structure

To understand the structure of the NHS and the management of local healthcare systems in order to be able to participate fully in managing healthcare provision

Knowledge	Assessment Methods	GMP
Understands the guidance given on management and doctors by the GMC	CbD	1
Understands the local structure and financing of NHS systems in the locality (NHS Trust: Executive Boards and Clinical Directors etc) recognising the potential differences between the four countries of the UK	CbD	1
Understands the structure and function of healthcare systems as they apply to Renal Medicine (HCC, Professional bodies, Royal College, JRCPTB)	CbD	1
Understands the principles of: • Clinical coding • European Working Time Regulations • National Service Frameworks • Health regulatory agencies (e.g. Dept Health, CHI, NICE, Scottish Government) • NHS Structure and relationships • NHS finance and budgeting • Consultant contract and the contracting process • Resource allocation • The role of the Independent sector as providers of healthcare	CbD	1
Understands the principles of recruitment and appointment procedures	CbD	1
Skills		
Participates in managerial meetings	CbD, DOPS, MSF	1
Takes an active role in promoting the best use of healthcare resources	CbD, DOPS, MSF	1
Works with stakeholders to create and sustain a patient-centred service	CbD, DOPS, MSF	1
Employs new technologies appropriately, including information technology	CbD, DOPS, MSF	1
Behaviours		
Recognises the importance of just allocation of healthcare resources	CbD, DOPS, MSF	1,2
Recognises the role of doctors as active participants in healthcare systems	CbD, DOPS, MSF	1,2
Responds appropriately to health service targets and takes part in the development of services	CbD, DOPS, MSF	1,2
Recognises the role of patients and carers as active participants in healthcare systems and service planning	CbD, DOPS, MSF	1,2,3
Shows willingness to improve managerial skills (e.g. management courses) and engage in management of the service	CbD, DOPS, MSF	1

Level Descriptor	
1	Works as a valued member of the multi-professional team. Listens well to others and takes other viewpoints into consideration Supports patients and relatives at times of difficulty e.g after receiving difficult news Is polite and calm when called or asked to help Acknowledges the skills of all members of the team
2	Can describe in outline the roles of primary care, community and secondary care services within healthcare Can describe the roles of members of the clinical team and the relationships between those roles Participates fully in clinical coding arrangements and other relevant local activities
3	Can describe the relationship between PCTs/Health Boards, General Practice and Trusts including relationships with local authorities and social services Participates in team and clinical directorate meetings including discussions around service development Discusses the most recent guidance from the relevant health regulatory agencies in relation to the specialty
4	Describes the local structure for health services and how they relate to regional or devolved administration structures Is able to discuss funding allocation processes from central government in outline and how that might impact on the local health organisation Participates fully in clinical directorate meetings and other appropriate local management structures in planning and delivering healthcare within the specialty Participates as appropriate in staff recruitment processes in order to deliver an effective clinical team Within the Directorate, collaborates with other stake holders to ensure that their needs and views are considered in managing services

26. Leadership Skills

To develop the basic knowledge, skills and behaviours necessary to effectively contribute to the management and improvement of a clinical service

Knowledge	Assessment Methods	GMP
Recognises the basic elements required to run a Renal service encompassing the entire patient pathway	AA, MSF	1
Recognises how clinical audit and health informatics data (local, regional and national) can inform clinical nephrological practice	AA	1
Recognises that clinical service priorities are set and that business plans are developed and presented within an organisation/network	AA	1
Recognises the importance of local and national management and financing structures (appreciates the commissioning, funding and contracting arrangements in Renal Medicine)	AA	1
Recalls the importance of ethical and equality aspects relating to management and leadership in Renal Medicine e.g. use of dialysis resources	MSF	1
Aware of the issues relating to recruitment and employment of staff in a clinical service	MSF	1
Recalls of the legislation about equality and diversity in the workplace	ESENeph	1
Skills		
Uses data and information (clinical audit and other healthcare informatics resources) to inform, refine and enhance the management and delivery of clinical care	AA	1
Analyses, feedback and comments and integrates them into plans for the clinical service	AA	1
Reviews and proposes solutions to improve clinical service	AA, CbD, MSF	1
Reviews performance of the team at an appropriate level (e.g. managing junior doctor rotas, leading junior medical team)	MSF	1
Behaviours		
Acts as a role model for others	MSF	1,4
Supports the development of junior staff	MSF	1,3
Demonstrates commitment to effective use of resources	AA	1
Acknowledges the financial pressures experienced by Renal services and how these issues are managed in the Trust and department. (Awareness of equity in healthcare access and delivery)	AA	1,3
Demonstrates commitment to equality in clinical and non-clinical duties	MSF	1,4

Level Descriptor

1 Engages in clinical audit, leads a discussion of audit findings and suggests clinical service developments to improve clinical outcomes

Demonstrates engagement with local quality control mechanisms / standards

2 Shadows PCT managers and senior Clinicians, attends meetings including senior medical management and a range of relevant generic management meetings in local Trust

3	Demonstrates training in and application of management methods Has worked with colleagues to implement a change in clinical service Has taken part in a recruitment cycle

27. Health Informatics

To develop an understanding of, and the ability to apply, the principles and methods of health informatics to clinical nephrological practice

To use health informatics data and methods to inform, refine and enhance the quality of delivered patient care

Knowledge	Assessment Methods	GMP
Understands the potential of health-orientated clinical and non-clinical informatics systems at local (e.g. renal unit, local Trust), regional (e.g. strategic health authority / specialist commissioning group renal network or equivalent) and national level (e.g. UK Renal Registry, NHSBT)	AA, CbD, MSF	1
Skills		
Operates IT systems (computers and relevant applications) required to deliver patient care	AA	1
Uses healthcare informatics principles and resources (data and information) to inform, refine and enhance the management and delivery of clinical care	AA	1
Collects, collates, analyses, interprets and presents accurate and relevant clinical and non-clinical health informatics data / information to both healthcare professionals and the public	AA	1
Behaviours		
Recognises the need for formal information governance and understands local procedures, professional requirements and the relevant UK medicolegal framework	CbD	1,4
Acts within a professional and legal framework to ensure that patient data is handled safely and secured at all times	ACAT, CbD	1,2,3,4

Level Descriptor

1 Can competently use 'office' computing applications

Understands local clinical systems and importance of national informatics systems and how they relate to medical practice

Involved in data entry as part of day-to-day practice, active engagement in conducting service evaluation, clinical audit; uses local intranet and a limited set of national guidelines / resources

Uses and maintains patient data safely and securely

2 Undertakes more complex data / information gathering, analysis and presentation tasks e.g. multidisciplinary related audits, focussed clinical information searches

Actively works to contribute data / information to, and use data / information from, local systems

3 Demonstrates engagement with local quality control mechanisms / standards. Makes use of a wider range of locally and nationally available guidelines / resources in clinical practice

Undertakes complex data analyses / information searches using multiple appropriate data resources. Is able to present complex material clearly and succinctly. With the help of others contributes own conclusions / measured outcomes to help refine / enhance medical practice

B.Good Clinical Care

A. Common Nephrological Presentations:

1. Urinary Abnormalities:
   - Haematuria
   - Proteinuria

2. Fluid and Acid Base Balance Disorders

3. Glomerulonephritis and Tubulo-Interstitial Diseases:
   - Glomerulonephritis
   - Tubulo-Interstitial Diseases

4. Acute kidney Injury (AKI)

5. Chronic Kidney Disease (CKD):
   - Renal Bone Disease
   - Renal Anaemia
   - Cardiovascular Disease

6. Hypertension

7. Renovascular Disease

8. Diabetes and Kidney Disease

9. Urological Presentations:
   - Renal Stone Disease
   - Urinary Tract Infection
   - Urinary Tract Obstruction and Neurogenic Bladder

10. Inherited and Rarer Diseases, including Polycystic Kidney Disease Alports, Fabrys, Amyloid, etc

B. Management of Advanced Kidney Disease

1. Active Supportive (Non-Dialysis) Care

2. Renal Replacement Therapies:
   - Dialysis Therapies: Peritoneal Dialysis
     Haemodialysis

3. Dialysis in Patients with Acute Kidney Injury:
   - Acute Dialysis and Plasma Exchange

4. Renal Transplantation:
   - Pre-Transplant Evaluation
   - Acute Stage
   - Long-Term Care

C. Special situations

1. Sexual Health Issues:

Male Sexual Health
Female Sexual Health: Renal Disorders in Pregnancy

2. Adult-Paediatric Interface

3. Nutrition in Renal Patients

D. Investigational and Procedural competencies

1. Native Kidney Biopsy

2. Renal Transplant Biopsy

3. Insertion of Temporary Haemodialysis Catheters

C. Common Nephrological Presentations

1. Urinary Abnormalities

Haematuria

To undertake a specialist assessment, investigate and manage a patient with haematuria		
Knowledge	**Assessment Methods**	**GMP**
Outlines the pathophysiology of visible and non-visible haematuria	CbD, mini-CEX, ESENeph	1,2
Lists the causes of haematuria and define the relationship to systemic diseases	CbD, mini-CEX, ESENeph	1,2
Skills		
Formulates a differential diagnosis, appropriate plan of investigation and management for a patient with haematuria	CbD, mini-CEX, ESENeph	1,2
Recognises the indication for renal biopsy in investigation of haematuria and discuss the associated risks, likely prognosis and requirement for long term review	CbD, mini-CEX, ESENeph	1,2
Behaviours		
Involves specialist teams appropriately – Urologists and Histopathologist	CbD, mini-CEX, MSF	1,2,3
Appreciates the importance of the primary care team in screening for haematuria and in long term management of some patients	CbD, mini-CEX, MSF	1,2,3
Level Descriptor		
1 Able to investigate and manage a patient with haematuria		
2 Clearly explains to a patient the indication for and potential risks of a renal biopsy and competently discusses the likely treatment options and need for follow up		
3 Involves and liaises effectively with colleagues in other specialities e.g. Urology, Pathology and primary care		

Proteinuria

To undertake a specialist assessment, investigate and manage a patient with proteinuria and nephrotic syndrome

Knowledge	Assessment Methods	GMP
Outlines the pathophysiology of proteinuria and nephrotic syndrome	CbD, mini-CEX, ESENeph	1,2
Differentiates between physiological and pathological causes of proteinuria	CbD, mini-CEX, ESENeph	1,2
Lists the causes of proteinuria and define the relationship to systemic diseases	CbD, mini-CEX, ESENeph	1,2
Describes the risk of extrarenal complications of nephrotic syndrome	CbD, mini-CEX, ESENeph	1,2
Lists the range of treatment options (including potential adverse effects) available for management of proteinuria and associated extrarenal complications	CbD, mini-CEX, ESENeph	1,2
Skills		
Formulates a differential diagnosis, appropriate plan of investigation and management for a patient with asymptomatic proteinuria, symptomatic proteinuria or nephrotic syndrome	CbD, mini-CEX, MSF	1,2
Assesses the severity of proteinuria and the risk of extra-renal complications	CbD, mini-CEX, MSF	1,2
Recognises the indication for renal biopsy in investigation of proteinuria and discusses the associated risks, likely prognosis and requirement for long term review	CbD, mini-CEX, MSF	1,2
Behaviours		
Appreciates the importance of the primary care team in screening for proteinuria and in long term management of some patients	CbD, mini-CEX, MSF	1,2,3
Recognises the role of Histopathologist in diagnosis and the multidisciplinary team in long term management e.g. dieticians	CbD, mini-CEX, MSF	1,2,3

Level Descriptor

1 Able to investigate and manage a patient with proteinuria and nephrotic syndrome. Can identify and manage the complications of the nephrotic syndrome

2 Discusses with a patient the indication for and potential risks of a renal biopsy and explains clearly the likely treatment and follow up scenarios

3 Involves and liaises effectively with colleagues in other specialities e.g. Histopathology and primary care. Appreciates the importance of primary care in screening for proteinuria and in long term management of proteinuric patients

2. Disorders of Fluid and Electrolyte and Acid Base Regulation

To progressively develop the ability to undertake specialist assessment and treatment of patients with disorders of fluid, electrolyte and acid base regulation

Knowledge	Assessment Methods	GMP
Determines the clinical importance of fluid, electrolyte and acid base abnormalities	CbD, mini-CEX, ESENeph	1,2
Describes the physiology of water, electrolyte and acid base metabolism	CbD, mini-CEX, ESENeph	1,2
Outlines the pathophysiology of sodium, potassium, and hydrogen ion imbalance, and dysregulation of water homeostasis	CbD, mini-CEX, ESENeph	1,2
Describes the methods used to investigate fluid, electrolyte, and acid base abnormalities	CbD, mini-CEX, ESENeph	1,2
Skills		
Assess patients with disorders of fluid, electrolyte, and acid base homeostasis and administer appropriate management	CbD, mini-CEX, MSF	1,2
Performs a thorough and accurate clinical examination which includes the assessment of the volume state	CbD, mini-CEX, MSF	1,2
Interprets the results of appropriate biochemical investigations	CbD, mini-CEX, MSF	1,2
Manages patients with fluid, electrolyte and acid base disorders	CbD, mini-CEX, ESENeph	1,2
Behaviours		
Clearly explains the nature of these conditions (including inherited disorders), their management and prognosis to the patients and carers	CbD, mini-CEX, MSF	1,2,3
Level Descriptor		
1 Is able to accurately assess and investigate a patient with electrolyte and acid/base disorders Is able to initiate appropriate treatment involving the wider multi-disciplinary team (particularly dietetic service) as required		
2 Is able to monitor response to interventions and adjust treatment appropriately Can discuss treatment strategy and the likely prognosis with the patient and carers		
3 Is able to manage complex cases (including the less common forms of electrolyte and acid/base disturbance) in all circumstances		

3. Glomerulonephritis and Tubulo-Interstitial Nephritis

Glomerulonephritis

To assess, diagnose and treat patients with possible glomerulonephritis, manage the complications of the diseases and their treatment, and both the systemic and local renal manifestations

Knowledge	Assessment Methods	GMP
Lists the various types of glomerulonephritis, aetiology, pathology and clinical manifestations	CbD, mini-CEX, ESENeph	1,2
Recalls the pathophysiology of systemic disease causing glomerulonephritis especially vasculitis and SLE, viral (including HIV) and other infections and thrombotic microangiopathies	CbD, mini-CEX, ESENeph	1,2
Describes the natural history and prognosis for the different glomerulonephritides	CbD, mini-CEX, ESENeph	1,2
Describes the investigation of a patient with glomerulonephritis, both at time of presentation and during long term follow-up (including role of renal biopsy)	CbD, mini-CEX, ESENeph	1,2
Describes the available management strategies (both specific and non-specific) including immunosuppression and is aware of recent clinical trials	CbD, mini-CEX, ESENeph	1,2
Describes the place and timing of renal transplantation	CbD, mini-CEX, ESENeph	1,2
Skills		
Clinically assesses patients with glomerulonephritis with or without systemic involvement	mini-CEX	1,2
Investigates patient with suspected glomerulonephritis appropriately including laboratory tests, imaging and renal biopsy	CbD, mini-CEX, ESENeph	1,2
Interprets the results of laboratory investigations and renal biopsy findings	CbD, mini-CEX, ESENeph	1,2
Makes appropriate decisions about urgency of treatment	CbD, mini-CEX	1,2
Determines the place for immunosuppression, balances risks and benefits, and monitors long term use	CbD, mini-CEX, ESENeph	1,2
Behaviours		
Explains the nature of the diseases, their management and prognosis to patients	mini-CEX	1,3
Interacts with pathologists in MDT meetings to understand the implications of renal biopsy findings	MSF	2,3
Appreciates the roles for other specialists and multi-professional teams especially for patients with systemic disease such as SLE	mini-CEX, MSF	2,3

Level Descriptor

1 Able to investigate patients with suspected glomerulonephritis and integrate pathology results to make a diagnosis
Explains clearly to patients the diagnosis and available treatments (including potential risks of treatment)

2 Develops an initial treatment and management plan for the common glomerulonephritides, explains risk and benefits to patients and discusses prognosis
Recognises the systemic features of the diseases and involves other specialists and health

	professionals appropriately
3	Manages more complex patients, relapsing disease, complications of treatment and has a basic knowledge of rarer glomerular diseases Can initiate second and third line therapies and discuss them with patients Understands where uncertainty in treatment exists and how to enrol patients into clinical trials

Tubulointerstitial Nephritis

To assess, diagnose and treat patients with interstitial nephritis or tubulo-interstitial disease		
Knowledge	**Assessment Methods**	**GMP**
Recalls the pathophysiology of interstitial nephritis and tubulo-interstitial disease, their causes and links with systemic diseases	CbD, mini-CEX, ESENeph	1,2
Lists the investigations needed in patients with interstitial nephritis	CbD, mini-CEX, ESENeph	1,2
Describes the natural history and prognosis of interstitial nephritis	CbD, mini-CEX, ESENeph	1,2
Describes the management strategies for treatment and especially the place for steroids or other immunosuppression	CbD, mini-CEX, ESENeph	1,2
Skills		
Clinically assesses patients with interstitial nephritis, and takes a full drug and environmental history	mini-CEX	1,2
Investigates patients appropriately including use of laboratory tests, imaging and renal biopsy	CbD, mini-CEX, ESENeph	1,2
Interprets the results of appropriate laboratory investigations and renal biopsy findings	CbD, mini-CEX, ESENeph	1,2
Makes decisions about urgency of treatment and the place of steroids or other immune-suppression	CbD, mini-CEX	1,2
Behaviours		
Clearly and simply explains the nature of the disease, its management and prognosis to patients	mini-CEX	1,2,3
Interacts with pathologists in MDT meetings to understand the implications of renal biopsy findings	MSF	2,3
Level Descriptor		
1 Knows when interstitial disease should be considered in patients, how to make the diagnosis, and can discuss the diagnosis and prognosis with patients		
2 Understands the role for biopsy in diagnosis and place for specific treatment (s) and can discuss clearly with patients		
3 Can determine follow-up plans for patients Can diagnose and manage systemic disease presenting with interstitial nephritis		

4. Acute Kidney Injury (AKI)

To assess, investigate appropriately, formulate and implement a specialist management plan for a patient with acute kidney injury

Knowledge	Assessment Methods	GMP
Lists the causes of AKI and defines the relationship to systemic disease	CbD, mini-CEX, ESENeph	1,2
Outlines the pathophysiology of AKI in different clinical scenarios e.g. acute tubular necrosis, glomerulonephritis, etc	CbD, mini-CEX, ESENeph	1,2
Describes the methods available to grade severity of AKI	CbD, mini-CEX, ESENeph	1,2
Describes methods of investigation relevant to a patient with AKI	CbD, mini-CEX, ESENeph	1,2
Outlines treatment options: renal replacement therapy (including plasma exchange) and treatment relevant to the underlying cause of AKI (including potential adverse effects)	CbD, mini-CEX, ESENeph	1,2
Describes the role of the multidisciplinary team in care of AKI patient (nurses, critical care staff, dieticians etc)	CbD, mini-CEX, ESENeph	1,2
Skills		
Identifies patients at high risk of AKI and institutes preventative measures	ACAT, CbD, mini-CEX	1,2
Differentiates pre-renal failure, renal failure and urinary tract obstruction	ACAT, CbD, mini-CEX	1,2
Grades the severity of AKI	ACAT, CbD, mini-CEX	1,2
Orders, interprets and acts upon investigations appropriately including: biochemistry, haematology, microbiology, immunology and imaging	ACAT, CbD, mini-CEX	1,2
Initiates appropriate specialist management of AKI and the underlying cause (including renal replacement therapy, immunosuppressant treatment, plasma exchange etc)	ACAT, CbD, mini-CEX	1,2
Behaviours		
Involves specialist teams appropriately – Histopathologist, microbiologist, radiologist, urologist and surgeon	CbD, mini-CEX, MSF	2,3
Discusses with a patient (or relative) the diagnosis, treatment options and likely prognosis	CbD, mini-CEX, MSF	1,2,3
Shares decision making about treatment options with patients and specialist colleagues	CbD, mini-CEX, MSF	1,2,3,4
Participates in multi-disciplinary approach to care	MSF	2,3

Level Descriptor

1 Accurately assesses and investigates a patient with AKI. Initiates appropriate treatment involving the wider multi-disciplinary team as required

2 Monitors response to interventions and adjusts treatment appropriately. Can discuss treatment strategy and likely prognosis with patient and carers

3 Able to manage complex cases in difficult circumstances. Understands the significant issues affecting service delivery and participates in audit, quality control and service development

5. Chronic Kidney Disease (CKD)

To progressively develop the ability to carry out specialist assessment and treatment of patients with chronic kidney disease

Knowledge	Assessment Methods	GMP
Lists the causes of chronic kidney disease	CbD, mini-CEX, ESENeph	1,2
Describes the classification (stages) of chronic kidney disease	CbD, mini-CEX, ESENeph	1,2
Describes the investigations used to assess the cause, severity and reversibility of CKD	CbD, mini-CEX, ESENeph	1,2
Outlines the basis and use of estimated glomerular filtration rate (eGFR)	CbD, mini-CEX, ESENeph	1,2
Describes the natural history and prognosis of chronic kidney disease and the available treatment strategies	CbD, mini-CEX, ESENeph	1,2
Describes pharmacology of commonly used drugs in renal failure and dose adjustments required	CbD, mini-CEX, ESENeph	1,2
Skills		
Takes an accurate clinical history in the assessment of chronic kidney disease including drug history, family, social and environmental history	CbD, mini-CEX	1,2,3
Manages the patient with chronic kidney disease to ensure that reversible causes are identified and treated	CbD, mini-CEX	1,2,3
Manages the non-renal complications of chronic kidney disease	CbD, mini-CEX, ESENeph	1,2
Discusses treatment options with patients appropriately and in liaison with the multi-disciplinary team to support the patient's decision-making processes	CbD, mini-CEX, MSF, ESENeph	1,2,3,4
Makes timely and appropriate plans for renal replacement therapy where necessary	AA, CbD, mini-CEX, MSF, ESENeph	1,2,3,4
Behaviours		
Appreciates the role of the multidisciplinary team including the patient, primary care team and recognised support organisations in the management of patients with chronic kidney disease	CbD, mini-CEX, MSF	3,4
Uses national standards and local guidelines in the management of the patient	AA, CbD, mini-CEX, ESENeph	1,2
Supports the patient when selecting their treatment of choice regardless of background but taking account of individual circumstances	CbD, mini-CEX, MSF	3,4

Level Descriptor

1 Understands classification of chronic kidney disease and recognises need for timely referral into specialist services

Under supervision manages patients with chronic kidney disease including managing complications and is able to involve members of multidisciplinary team appropriately

2 Independently manages patient within specialised service, able to support patient decision making and seeks senior support when appropriate

3 Demonstrates knowledge of service design to deliver successful outcomes to large numbers of patients with chronic kidney disease

Renal Bone Disease

To progressively develop the ability to supervise and manage patients with chronic kidney disease at risk of developing renal bone disease

Knowledge	Assessment Methods	GMP
Outlines the physiology of calcium, phosphate, bone and mineral metabolism and the pathophysiology of renal bone disease including: osteomalacia, hyperparathyroid associated bone disease and adynamic bone disease	CbD, mini-CEX, ESENeph	1,2
Describes the use of biochemical tests, imaging techniques and histological methods in the diagnosis and management of renal bone disease	CbD, mini-CEX, ESENeph	1,2
Lists the indications for and the clinical use of dietary modification, phosphate binders, vitamin D preparations, calcimimetic drugs and parathyroidectomy to manage the condition	CbD, mini-CEX, ESENeph	1,2
Describes how to appropriately monitor patients to assess response to treatment for renal bone disease	AA, CbD, mini-CEX, ESENeph	1,2
Skills		
Interprets the results of biochemical, radiological and histological investigations in patients with disorders of bone and mineral metabolism	CbD, mini-CEX, ESENeph	1,2
Prevents, diagnoses and manages renal bone disease in patients with chronic kidney disease before the initiation of renal replacement therapy	CbD, mini-CEX, ESENeph	1,2
Manages the renal bone disease in patients on peritoneal dialysis, haemodialysis and with a renal transplant	CbD, mini-CEX, ESENeph	1,2
Explains available treatment options to patients	CbD, mini-CEX, MSF	1,2,3
Behaviours		
Works appropriately with the multi-disciplinary team, especially dieticians and dialysis staff to manage patients with renal bone disease	CbD, mini-CEX, MSF	3,4
Supports the patient with the behaviour change and treatment concordance required to manage renal bone disease	CbD, mini-CEX, MSF	3,4
Uses national standards and local guidelines in the management of the patient	AA, CbD, mini-CEX, ESENeph	1,2

Level Descriptor

1 Knows the pathophysiology of renal bone disease and the treatment options available for its management

Accurately assesses patients with renal bone disease and initiates appropriate treatment of their renal bone disease involving the wider multi-disciplinary team as required

2 Reviews patients' responses to interventions and responds and adjusts treatment appropriately, showing an understanding for patient concordance and behaviour change management

3 Understands the service delivery implications to provide dietetic support, provision of new agents to control the condition and liaison with surgeons

Renal Anaemia

To progressively develop the ability to supervise and manage patients with chronic kidney disease who develop anaemia

Knowledge	Assessment Methods	GMP
Describes the pathophysiology of renal anaemia and the haematological and biochemical methods to diagnose, assess and monitors treatment in renal anaemia	CbD, mini-CEX, ESENeph	1,2
Distinguishes between anaemia secondary to chronic kidney disease and other causes	CbD, mini-CEX, ESENeph	1,2
Defines the indications for and the use of erythropoietic stimulating agents (ESAs) and their complications	CbD, mini-CEX, ESENeph	1,2
Defines the indications for and use of oral and parenteral iron therapy and its complications	CbD, mini-CEX, ESENeph	1,2
Lists the causes of resistance to ESA therapy and its investigation	CbD, mini-CEX, ESENeph	1,2
Skills		
Diagnoses and treats renal anaemia, monitors the effects of treatment and manages failure of treatment	CbD, mini-CEX, ESENeph	1,2
Manages renal anaemia in chronic kidney disease patients not yet on renal replacement therapy	CbD, mini-CEX, ESENeph	1,2
Manages renal anaemia in chronic kidney disease patients on renal replacement therapy	CbD, mini-CEX, ESENeph	1,2
Prescribes and monitors iron replacement therapy	CbD, mini-CEX, ESENeph	1,2
Audits the use of ESAs and iron therapy in individual patients and patient populations	AA, CbD, mini-CEX	1,2
Behaviours		
Ensures that all patients with chronic kidney disease, whether on renal replacement therapy or not, who will benefit from treatment for their renal anaemia, receive appropriate treatment	CbD, mini-CEX, MSF	1,2,4
Involves the multi-disciplinary team in the counselling of patients, initiation and long-term management of renal anaemia	CbD, mini-CEX, MSF	1,2,3,4
Takes the resource management issues into account when delivering treatment to populations of patients with renal anaemia	AA, CbD, mini-CEX	1,2
Uses national standards and local guidelines in the management of the patient	AA, CbD, mini-CEX, ESENeph	1,2

Level Descriptor

1 Knows how to treat patients with renal anaemia using appropriate ESAs and iron replacement Takes account of functional status of patient in choosing patients for treatment

2 Manages monitoring and complications of treatment of renal anaemia

3 Understands issues regarding delivery of renal anaemia management to large populations of patients

Cardiovascular Disease in Patients with Kidney Diseases

To develop the ability to assess and treat renal patients with cardiovascular disease

Knowledge	Assessment Methods	GMP
Describes the impact of cardiovascular disease on morbidity and mortality of patients with renal disease and in those receiving renal replacement therapy	CbD, mini-CEX, ESENeph	1
Lists cardiovascular risk factors and modification strategies (including hyperlipidaemias and obesity)	CbD, mini-CEX, ESENeph	1
Outlines how to manage acute coronary syndromes and associated problems in the renal patient	CbD, mini-CEX, ESENeph	1
Determines the risk of acute kidney injury after angiographic procedures and knows how to reduce this risk	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses a patient who may have cardiovascular disease including identification and treatment of cardiovascular risk factors	CbD, mini-CEX, ESENeph	1,2
Interprets guidelines for treatment of cardiovascular risk factors including hyperlipidaemia and obesity	AA, CbD, mini-CEX, ESENeph	1,2
Discusses self-management strategies and dietary modifications with patient and when necessary prescribes and monitors drug therapy	CbD, mini-CEX, MSF	1,3
Recognises patients who need referral for specialist cardiology review (including potential renal transplant recipients)	CbD, mini-CEX, ESENeph	1,2
Behaviours		
Involves patients and carers in the long term management of risk factors including use of self-management and dietary strategies	CbD, mini-CEX, PS	1,3
Recognises the role of primary care and the wider MDT (patient, GP, dieticians, other specialist physicians) in the management of cardiovascular risk factors in patients with renal disease and works to develop unified protocols for management	CbD, mini-CEX	2,3

Level Descriptor

1 Is able to identify and manage cardiovascular risk factors. Discusses and agrees a management plan with patients

2 Is able to diagnose and manage the patient with unstable angina or acute coronary syndrome in collaboration with cardiologists

Is able to discuss and agree with patient and MDT (cardiologists, dieticians, physiotherapists and nurses) long term management plan for cardiovascular risk reduction

3 Is able to assess, treat and minimise cardiovascular risk in all patients with renal disease, including potential renal transplant recipients

6. Hypertension

To develop the ability to identify, investigate and treat hypertension, with particular respect to renal disease

Knowledge	Assessment Methods	GMP
Outlines the pathophysiology of primary (essential) hypertension	CbD, mini-CEX, ESENeph	1
Outlines the causes of secondary hypertension and knows how to investigate and treat	CbD, mini-CEX, ESENeph	1,2
Recalls British Hypertension Society and National Institute for Health and Clinical Excellence Guidelines for treatment of hypertension and targets blood pressure levels in different clinical situations	CbD, mini-CEX, ESENeph	1,2
Describes the importance of non-pharmacological measures in achieving blood pressure targets	CbD, mini-CEX, ESENeph	1,2
Outlines the mechanisms of action and potential side effects of antihypertensive drugs and the tolerability and convenience of prescribed regimens	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses a patient with hypertension (including use of home and ambulatory blood pressure monitoring) and appropriately investigates to exclude underlying secondary causes	CbD, mini-CEX, ESENeph	1,2
Identifies the patient with secondary hypertension who is suitable for definitive treatment; recognises and is able to counsel patient about the limitations of such intervention	CbD, mini-CEX, ESENeph	1,2,3,4
Agrees with the patient lifestyle measures and a suitable antihypertensive drug regime	CbD, mini-CEX, ESENeph	1,3
Prescribes antihypertensive medication to achieve blood pressure levels recommended by British Hypertension Society National Institute for Health and Clinical Excellence Guidelines	ACAT, CbD, mini-CEX, ESENeph	1,2
Monitors and reviews effectiveness of blood pressure control over time with patient and primary care team	CbD, mini-CEX, MSF, PS, ESENeph	2,3
Behaviours		
Recognises role of primary care in management of hypertension	CbD, mini-CEX, MSF, ESENeph	2,3
Recognises importance of patient centred care and education to assist compliance, lifestyle alteration and achievement of BP treatment targets	CbD, mini-CEX, PS, ESENeph	1,2,3,4

Level Descriptor

1 Assesses normal and elevated blood pressure in clinic and ward setting. Investigates, identifies and manages essential hypertension

Discusses and advises lifestyle measures (salt restriction, weight loss, alcohol reduction, exercise). Able to prescribe antihypertensive medication safely and effectively.

2 Able to investigate and manage severe or resistant hypertension; able to investigate and manage secondary causes of hypertension

3 Rapidly and accurately assesses and manages hypertensive emergencies (malignant hypertension, scleroderma renal crisis, hypertensive encephalopathy)

7. Renovascular Disease

To develop the ability to carry out assessment and treatment of patients with hypertension and/or renal impairment secondary to renovascular disease

Knowledge	Assessment Methods	GMP
Understands the causes and pathophysiology of renovascular disease	CbD, mini-CEX, ESENeph	1
Knows the methods used to investigate renovascular disease	CbD, mini-CEX, ESENeph	1,2
Knows the risks and complications of investigations such as angiography	CbD, mini-CEX, ESENeph	1,2
Aware of the natural history of the disease and the long term outcomes of intervention and medical management	CbD, mini-CEX, ESENeph	1,2
Understands the general management of extra-renal vascular problems of patients with atherosclerotic renovascular disease	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses patients who may have renovascular disease and determines if further investigation and intervention are required	CbD, mini-CEX, ESENeph	1-3
Acts to minimise the risks of acute kidney injury after angiographic procedures	CbD, mini-CEX, ESENeph	1-3
Able to counsel a patient about risks and benefits of investigations and interventions such as angiography and angioplasty/stent	CbD, mini-CEX, ESENeph	1,2,3,4
Able to provide long term care of blood pressure and cardiovascular risk for the patient with renovascular disease	CbD, mini-CEX, ESENeph	1-3
Behaviours		
Discusses with patient the available treatment options and the supporting evidence	mini-CEX, PS	1,2,3,4
Appreciates multidisciplinary approach to investigation and treatment	CbD, mini-CEX, MSF	1,2,3,4

Level Descriptor

1 Is able to identify renovascular disease and able to manage vascular risk factors. Discusses and agrees a management plan with patient

2 Arranges appropriate imaging to assess renovascular disease, in collaboration with radiologist. Able to interpret findings and discuss management options and long term prognosis with patient and carers

3 Able to identify when intervention or medical management of renovascular disease may be indicated and is able to counsel patient appropriately.

8. Diabetes and Kidney Disease

To progressively develop the ability to carry out specialist assessment and treatment of patients with diabetes and kidney disease

Knowledge	Assessment Methods	GMP
Outlines the pathophysiology of diabetic nephropathy, its predisposing factors and available screening methods	CbD, mini-CEX, ESENeph	1,2
Distinguishes between factors suggesting diabetic nephropathy and incidental kidney disease in diabetic patients	CbD, mini-CEX, ESENeph	1,2
Describes the role and importance of lifestyle factors (including smoking), diabetic control and other therapeutic strategies used to manage and slow progression of diabetic nephropathy and in the development of vascular disease	CbD, mini-CEX, ESENeph	1,2
Lists the indications for referral of diabetic patients to specialist renal clinics	CbD, mini-CEX, ESENeph	1,2
Explains the differing natural history of patients with diabetic renal disease compared to other chronic kidney disease patients	CbD, mini-CEX, ESENeph	1,2
Recognises the role of pancreatic and/or renal transplantation in diabetic patients with kidney disease	CbD, mini-CEX, ESENeph	1,2
Skills		
Makes an accurate and focussed clinical assessment of patients who may have diabetic nephropathy	CbD, mini-CEX, ESENeph	1,2
Recognises and manages non-diabetic renal disease in the diabetic patient	CbD, mini-CEX, ESENeph	1,2
Appropriately implements and monitors treatment for hypertension, hyperlipidaemia and utilises other renoprotective and cardiovascular protective treatments	AA, CbD, mini-CEX, ESENeph	1,2
Plans the long-term management of the patient with diabetic nephropathy who requires renal replacement therapy including renal transplantation	AA, CbD, mini-CEX, ESENeph	1,2,3,4
Contributes to the management of diabetes and its complications in patients with chronic kidney disease, on dialysis or with a transplant	CbD, mini-CEX, ESENeph	1,2,3,4
Behaviours		
Involves patients, carers and the wider multi-disciplinary team in long term patient care	CbD, mini-CEX, MSF	3,4
Works closely with diabetologists to draw up protocols for referral and management of diabetics with renal disease	AA, CbD, mini-CEX, MSF	1,2,3
Works closely with primary care for management of diabetes and stable chronic kidney disease and proteinuria	AA, CbD, mini-CEX, MSF	1,2,3
Recognises need for screening and management of diabetes microvascular and macrovascular complications in patients with chronic kidney disease and diabetes	AA, CbD, mini-CEX, MSF	1,2,3,4
Uses national standards and local guidelines in the management of the patient	AA, CbD, mini-CEX, MSF	1,2
Level Descriptor		
1 Understands the importance of diabetes in patients with kidney disease and applies the available		

	management strategies to control cardiovascular risk and to slow the progression of diabetic renal disease
2	Able to manage diabetes and its complications in patients with established renal failure (dialysis and transplant) and can tailor management plan according to individual needs of patients e.g. other comorbidities
	Understands the potential impact of diabetes on standard management plans and counsels patients appropriately
3	Contributes to development of protocols with diabetes MDT and renal MDT for management of diabetic patients with chronic kidney disease
	Appropriately assesses and refers diabetic patients for transplantation and able to discuss role of dual pancreas and renal transplant and refer appropriately

9. Urological Presentations

Renal Stone Disease

To progressively develop the ability to assess and investigate a patient with renal stone disease and to formulate a management plan for renal stone diseases

Knowledge	Assessment Methods	GMP
Recalls the causes and pathophysiology of renal stone formation, including associations with renal tubular or genetic disorders	CbD, mini-CEX, ESENepj	1,2
Describes the clinical presentation of renal stone disease and its effect on renal function	CbD, mini-CEX, ESENeph	1,2
Describes how to investigate a patient with renal stones using biochemical and imaging techniques	CbD, mini-CEX, ESENeph	1,2
Lists treatment options available including dietary and lifestyle measures to reduce renal stone risk	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses the patient with renal stones and appropriately investigates patients with recurrent renal stones	ACAT, CbD, mini-CEX, ESENeph	1,2
Discusses with a patient suitable simple and dietary measures to reduce risk of renal stone formation	CbD, mini-CEX	1,2,3
Recognises the limitation of medical treatment and appropriately refers patients for surgical assessment	CbD, ESENeph	1,2,3
Recognise the need to appropriately involve other clinicians including dieticians, urologists, radiologists	CbD, MSF	1,2,3
Behaviours		
Explains and discusses the diagnosis and treatment options available	mini-CEX	1,3,4
Encourages lifestyle changes to reduce stone risk	CbD, mini-CEX	1,3
Explains the significance of family history and refers for genetic advice where appropriate	CbD, mini-CEX	1,3

Level Descriptor

1 Performs focused history taking and clinical examination relevant to renal stones

Uses and interprets adjuncts to basic examination e.g. biochemical analysis of timed urine and radiology findings

Ability to advise simple measure e.g. increasing fluid intake, urinary alkalinisation

2 Performs and interprets advanced focused history taking and clinical examination

Uses and interprets findings of more complex investigations e.g. ultrasound and CT scan

Ability to provide more specific treatment advice and to make appropriate referral to other specialities

3 Rapidly and accurately diagnoses and manages in challenging circumstances e.g. renal colic +/- infection

Able to identify and discuss inherited and tubular causes of renal stones with a patient. Knows how to manage more complex cases e.g. cystinuria

Urinary Tract Infection

To undertake a specialist assessment, investigate and manage a patient with urinary tract infection

Knowledge	Assessment Methods	GMP
Lists the bacteriological causes of urinary tract infection	CbD, mini-CEX, ESENeph	1,2
Recalls the underlying predisposing causes of urinary tract infection and the familial nature of some abnormalities	ACAT, CbD, mini-CEX, ESENeph	1,2
Describes the modes of presentation of urinary tract infection (including special circumstances e.g. immunosuppressed or pregnant patient)	ACAT, CbD, mini-CEX, ESENeph	1,2
Describes the potential long term consequences of urinary tract infection	CbD, mini-CEX, ESENeph	1,2
Skills		
Investigates and manages all forms of urinary tract infection including recurrent urinary tract infection	ACAT, CbD, mini-CEX, ESENeph	1,2
Explains the familial nature of urinary tract infection when appropriate	CbD, mini-CEX, ESENeph	1,2,3,4
Behaviours		
Recognises the role of microbiologists, urologists and specialist nurses	CbD, mini-CEX, MSF	2,3
Recognises the role of primary care team in long term management	CbD, mini-CEX, MSF	2,3

Level Descriptor

1 Able to identify, investigate and manage patients with urinary tract infection

2 Able to identify, investigate and manage patients with urinary tract infection including taking action to involve other health care professionals when appropriate

3 Able to identify, investigate and manage more complex cases including recurrent UTI and UTI in immunosuppressed patients

Urinary Tract Obstruction and Neurogenic Bladder

To undertake a specialist assessment, investigate and manage patients with urinary tract obstruction and neurogenic bladder

Knowledge	Assessment Methods	GMP
Describes the anatomy of the urinary tract and the common sites and causes of urinary obstruction	CbD, mini-CEX, ESENeph	1,2
Describes the acute presentation of urinary tract obstruction and understands the long term consequences of urinary tract obstruction	ACAT, CbD, mini-CEX, ESENeph	1,2
Outlines the types of reconstructive procedures undertaken in children and adults and the relevance to future management including transplantation	CbD, mini-CEX, ESENeph	1,2
Skills		
Investigates and manages patients with urinary tract obstruction appropriately (including management of fluid and electrolyte disturbances occurring after the relief of obstruction)	ACAT, CbD, mini-CEX, ESENeph	1,2
Recognises when appropriate to involve Radiologists and Urologists	CbD, mini-CEX, MSF, ESENeph	1,2
Explains to patients and carers the interventions available to patients with urinary tract obstruction and bladder dysfunction (including neurogenic bladder) to avoid infection and prevent progressive renal damage	ACAT, CbD, mini-CEX	1,2,3
Behaviours		
Recognises the role of Urologists, Radiologists, paediatricians, microbiologists, specialist nurses and other health care professionals	ACAT, MSF	2,3
Recognises the role the primary care team in long term management and review	CbD, MSF	2,3

Level Descriptor

1 Able to identify, investigate and manage patients with urinary tract obstruction

2 Able to identify, investigate and manage more complex cases including taking action to involve other health care professionals when appropriate

3 Able to identify, investigate and manage more complex cases including renal transplant patients

10. Inherited and Rarer Diseases

To assess, diagnose and treat patients with genetic and other rare diseases and advise on inheritance

Knowledge	Assessment Methods	GMP
Recalls the pathophysiology and genetics of APKD, Alport's disease, reflux nephropathy, inherited tubular disorders, metabolic disorders such as oxalosis, Fabry's disease and thin membrane nephropathy (amongst others)	CbD, mini-CEX, ESENeph	1
Lists the investigations needed in patients with cystic kidney diseases and other inherited diseases	CbD, mini-CEX, ESENeph	1
Describes the natural history and prognosis of these diseases	CbD, mini-CEX, ESENeph	1
Describes available treatments and outlines their appropriate use	CbD, mini-CEX, ESENeph	1,2
Recalls the patterns of inheritance of genetic conditions and recognises indications for screening.	CbD, mini-CEX	1
Recognises occurrence of rare diseases such as fibrillary GN, scleroderma, cryoglobulinaemia, and knows where to find more information	CbD, mini-CEX	1
Skills		
Assesses patients with inherited diseases takes a full history, and aware of systemic features found in these diseases	mini-CEX	1,2
Initiates investigations including laboratory tests, imaging and renal biopsy (when appropriate).	CbD, mini-CEX, ESENeph	1,2
Interprets the results investigations (including renal biopsy) and initiates specific treatment appropriately	CbD, mini-CEX, ESENeph	1,2
Explains to patients the long term and progressive nature of these diseases and acts to minimise complications	CbD, mini-CEX	1,2
Determines when screening is required and interprets results of screening tests	CbD, mini-CEX, ESENeph	1,2
Behaviours		
Explains the nature of the diseases, their management and prognosis to patients	mini-CEX	1,2,3
Explains the familial nature and mode of inheritance of these diseases clearly and deal with anxieties and the wider family	mini-CEX	1,2,3
Interacts with pathologists and radiologists in MDT meetings to understand the implications of renal biopsy findings and imaging	MSF	1,2,3
Appreciates the multidisciplinary nature of managing patients with inherited systemic disease	CbD, MSF	2,3
Level Descriptor		
1 Can decide when inherited or rare diseases are possible (based on the history, examination and presentation) and the diagnostic paths available, including blood tests, the place for renal biopsy, and genetic tests.		
2 Can discuss with patients the place for genetic testing and the implications, and interact with other		

	healthcare professionals including pathologists, geneticists, paediatricians and family doctors.
3	Knows how to follow-up patients with rare and inherited disease, how to take over patients from paediatric clinics and manage the transition, how to collaborate closely with other professionals to manage any non-renal manifestations, and how to support patients through the implications of inherited diseases. Knows about ongoing trials in such diseases and how to enrol patients where appropriate, and the place for disease registries.

D. Management of Advanced Kidney disease

1. Active Supportive (Non-Dialysis) Care

To develop the ability to identify, counsel and manage patients with chronic kidney disease who require active supportive management (non-dialysis or conservative care)

To develop the ability to identify and counsel patients with chronic kidney disease who require end of life palliative care

To develop the ability to formulate and supervise a management plan for end of life care, together with patient, family /carers and multi-disciplinary team

Knowledge	Assessment Methods	GMP
Lists the symptoms of advanced chronic kidney disease	CbD, mini-CEX, ESENeph	1,2
Recalls the evidence for active supportive care (non dialysis) care of chronic kidney disease	CbD, mini-CEX, ESENeph	1,2
Outlines the principles of pain relief and appropriate analgesic prescription in end stage renal disease	CbD, mini-CEX, ESENeph	1,2
Recalls the factors affecting survival in patients with end stage renal disease	CbD, mini-CEX, ESENeph	1
Recognises the clinical features of dying	ACAT, CbD, mini-CEX	1,2,3
Recalls the principles of bereavement management	CbD, mini-CEX, ESENeph	1,3,4
Describes the medicolegal framework for decisions about patient treatment and advanced directives	CbD, mini-CEX	1,2,3
Recognises when to initiate integrated care pathway for dying patients with the help of the multidisciplinary team	ACAT, CbD, mini-CEX	1,2,3
Skills		
Identifies patients requiring active support management or end of life care	ACAT, CbD, mini-CEX	1,2,3,4
Counsels patients and carers about active supportive care (conservative - non dialysis, non transplant) management of advanced chronic kidney disease	CbD, mini-CEX	1,3,4
Recognises and manages the symptoms of end-stage renal disease including prescription of effective analgesia for patients requiring pain relief and initial management of depression	ACAT, CbD, mini-CEX, ESENeph	1,2,3
Identifies the patient who is deteriorating despite dialysis; counsels patients and carers about withdrawal of dialysis with the support of the multidisciplinary team	ACAT, CbD, mini-CEX	3,4
Behaviours		
Appreciates the role of and liaises closely with other health professionals, including primary care and the palliative care multidisciplinary teams in the provision of active supportive care and end of life care	ACAT, CbD MSF	2,3
Appreciates that patients have physical, social, spiritual and psychological needs	ACAT, CbD, mini-CEX	3,4
Appreciates and promotes good communication with the patient and	ACAT, CbD, mini-	3,4

their family	CEX	
Recognises the complex needs of patients and families when facing death	ACAT, CbD, mini-CEX	3,4
Appreciates the multicultural aspects of bereavement	ACAT, CbD, mini-CEX	3,4

Level Descriptor

1 Is able to identify patients with chronic kidney disease who may be best managed by active supportive (conservative, non dialysis) care and is able to counsel patients and family/carers appropriately with the multidisciplinary team.

Is able to identify the dying patient, discuss integrated pathway of care for dying with patient and family/carers and multidisciplinary team and can prescribe appropriate and effective analgesia

2 Able to manage effectively symptoms of end stage kidney disease such as itch, breathlessness, anorexia and nausea. Able to provide active supportive (conservative, non dialysis) care for patients and carers with the multidisciplinary and primary care team

Understands when to involve specialist palliative care team in end of life care

3 Is able to identify when withdrawal of dialysis is a management option for patients and carers and can discuss with patients and carers appropriately. Understands and is able to provide information and support needed by patients and families facing death. Understands and can facilitate the requirements of different faiths at end of life. Able to provide appropriate support to bereaved carers.

2. Renal Replacement Therapies

Dialysis Therapies: Peritoneal Dialysis – General Principles and Management

To provide the trainee with skills and knowledge to be able to supervise and manage patients on chronic peritoneal dialysis

Knowledge	Assessment Methods	GMP
Recalls the principles of peritoneal dialysis, including membrane physiology, dialysis solutions and their mechanism of action	CbD, mini-CEX, ESENeph	1,2
Describes the relative therapeutic and lifestyle advantages of all modes of peritoneal dialysis	CbD, mini-CEX, ESENeph	1,2
Outlines the different methods of insertion of peritoneal dialysis catheters and their advantages and disadvantages	CbD, mini-CEX, ESENeph	1,2
Recalls the methods used to assess adequacy of peritoneal dialysis and peritoneal membrane function	CbD, mini-CEX, ESENeph	1,2
Recalls the evidence base supporting treatment targets for adequate peritoneal dialysis	CbD, ESENeph	1,2
Skills		
Assesses the suitability of a patient for peritoneal dialysis in the context of other methods of renal replacement therapy.	CbD, mini-CEX, DOPS	1,3
Adjusts the prescription of peritoneal dialysis and monitor change. Manages the nutrition of peritoneal dialysis patients.	CbD, mini-CEX	1,2,3
Organises the day-to-day management of a peritoneal dialysis service	MSF,	2,3,4
Behaviours		
Appreciates the role of nurses and other health care professionals in the day-to-day management of peritoneal dialysis and demonstrate ability to work closely with the multidisciplinary team	MSF	3,4
Appreciates the cost implications of different catheters, fluids and systems in peritoneal dialysis	CbD	2,3
Works closely with management and purchasers to ensure cost effective treatment	MSF	3

Level Descriptor

1 Understands basic principles of the modality and able prescribe an appropriate dialysis regime

2 Demonstrates an understanding of the place of peritoneal dialysis in the overall context of renal replacement therapy. Works with the multidisciplinary team to manage longitudinal patient management including dialysis adequacy and monitoring membrane function

3 Has experience in leading a dialysis quality assurance meeting with the MDT. Understands the organisational issues in delivering a peritoneal dialysis service.

Dialysis Therapies: Peritoneal Dialysis – Complications

To provide the trainee with skills and knowledge to be able to identify and manage the complications of chronic peritoneal dialysis

Knowledge	Assessment Methods	GMP
Describes the diagnosis and management of peritoneal dialysis associated peritonitis	CbD, mini-CEX, ESENeph	1,2
Describes the management of the catheter exit site and the prevention, diagnosis and treatment of associated infection	CbD, mini-CEX, ESENeph	1,2
Describes the diagnosis and management of mechanical problems associated with peritoneal dialysis (including herniae, leaks, catheter malfunction)	CbD, mini-CEX, ESENeph	1,2
Recalls the methods used to recognise and manage peritoneal membrane injury, including ultrafiltration failure and encapsulating peritoneal sclerosis	CbD, mini-CEX, ESENeph	1,2
Skills		
Adjusts the prescription of peritoneal dialysis required following complications and these monitor changes	CbD, mini-CEX	1,2,3
Manages the prevention and treatment of peritoneal dialysis associated infections (peritonitis and exit-site) and their complications	CbD, mini-CEX	1,2
Manages peritoneal dialysis technique failure and transfer to haemodialysis	CbD, mini-CEX	1,2,3
Behaviours		
Demonstrates participation in the multidisciplinary approach to the prevention and management of complications of peritoneal dialysis	AA, MSF	2,3,4

Level Descriptor

1 Able to initiate appropriate management for acute complications (e.g. peritonitis, leaks)

2 Understands principles of preventing complications (e.g. infection). Able to manage complications through to their full resolution including modality switch.

3 Has participated in the audit, protocol development and quality control of complications

Dialysis Therapies: Haemodialysis – General Principles and Management

To provide the trainee with skills and knowledge to be able to undertake the planning of haemodialysis, its prescription and measurement of its adequacy

Knowledge	Assessment Methods	GMP
Describes the methods of creating vascular access for haemodialysis	CbD	1
Describes the means to deliver purified water, the necessary standards and methods of assessing these	ESENeph	1,2
Recalls the principles of haemodialysis and knows the effects of changes in treatment length and frequency, different dialysis membranes, dialysate fluids	CbD, ESENeph	1,2
Describes the theory of sodium profiling and ultrafiltration	CbD, mini-CEX, ESENeph	1,2
Recalls the methods used to assess adequacy of haemodialysis	CbD, mini-CEX, ESENeph	1,2
Describes the evidence base supporting treatment targets for adequate haemodialysis	CbD, mini-CEX, ESENeph	1,2
Skills		
Adjusts the prescription of haemodialysis and monitor change	CbD, mini-CEX	1,2,3
Advises on ultrafiltration, sodium profiling and the use of different dialysate solutions	CbD, mini-CEX	1,2,3
Discusses the therapeutic and lifestyle implications of home versus hospital-based haemodialysis with a patient and carers	CbD, mini-CEX	1,2,3
Assesses the suitability of different methods of vascular access	CbD, mini-CEX	1,2,3
Organises the day-to-day management of a haemodialysis unit	CbD, mini-CEX	1,2,3
Behaviours		
Appreciates the role of nurses and other health care professionals in the day-to-day management of haemodialysis and changes in prescription	MSF	2,3,4
Works closely with management and purchasers to ensure cost-effective treatment	MSF	2,3,4

Level Descriptor

1 Understands basic principles of dialysis treatment and how this is achieved with standard haemodialysis. Able to prescribe a basic dialysis session.

2 Understands haemodialysis treatment in greater depth (water purity, haemodiafiltration, sodium profiling), able to prescribe, adjust and monitor treatment adequacy

3 Can manage haemodialysis treatment in the wider context of CKD5 at individual and service provision level. Experience in leading a dialysis quality assurance meeting with the MDT

Dialysis Therapies: Haemodialysis – Complications

To provide the trainee with skills and knowledge to be able to manage the complications of haemodialysis

Knowledge	Assessment Methods	GMP
Knows the complications of arterio-venous fistulae and artificial grafts including thrombosis, haemorrhage, infection, stenoses and poor flow	CbD, mini-CEX, ESENeph	1,2
Defines the methods of dealing with dialysis line sepsis, poor flow and line blockage	CbD, mini-CEX, ESENeph	1,2
Outlines the aetiology of intradialytic hypotension and available management strategies	CbD, mini-CEX, ESENeph	1,2
Describes the management of hard water syndrome, air embolism and EtOH reactions	CbD, mini-CEX, ESENeph	1,2
Describes the pathophysiology and management of dialysis-associated amyloid	CbD, mini-CEX, ESENeph	1,2
Skills		
Identifies and manages the complications of vascular access involving, when necessary, surgeons and radiologists	AA, CbD, mini-CEX	1,2,3
Manages dialysis-related sepsis and develops protocols with microbiologists	AA, CbD, mini-CEX	1,2,3
Develops protocols to deal with acute dialysis emergencies	AA, CbD	1,2,3
Behaviours		
Appreciates the role of nurses and other health care professionals in the day-to-day management of haemodialysis and its complications	CbD,	3
Appreciates the multidisciplinary nature of management of haemodialysis complications with development of close working relationships with surgeons and radiologists in the management of vascular access complications	CbD, MSF	3

Level Descriptor

1 Able to initiate appropriate management for acute complications e.g. line infection/dysfunction, intradialyctic hypotension)

2 Understands principles of preventing complications (e.g. management of access.) Able to manage complications through to their full resolution, including modality switch

3 Has participated in the audit, protocol development and quality control of complications

3 Dialysis in Patients with Acute Kidney Injury / Renal Replacement Therapies

Acute Dialysis and Plasma Exchange

To supervise and manage acute renal replacement therapy including plasma exchange

Knowledge	Assessment Methods	GMP
Knows the indications for acute dialysis and plasma exchange	ACAT, CbD, mini-CEX	1,2
Describes the principles of haemodialysis, haemofiltration and haemodiafiltration and indications for their use	ACAT, CbD, mini-CEX, ESENeph	1,2
Understands the principles of plasma exchange and potential complications of treatment	ACAT, CbD, mini-CEX, ESENeph	1,2
Describes the methods of creating vascular access for acute renal replacement therapy	ACAT, CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses the suitability of a patient for haemodialysis or haemofiltration	ACAT, CbD, mini-CEX	1,2
Prescibes haemodialysis and haemofiltration safely, adjusts prescriptions appropriately and monitors response to treatment	ACAT, CbD, mini-CEX	1,2
Prescribes medication safely and appropriate to patients with acute kidney injury	ACAT, CbD, mini-CEX	1,2,3
Assesses the suitability of a patient for plasmapheresis	ACAT, CbD, mini-CEX	1,2,3
Prescribes plasmapheresis safely and assesses response to treatment	ACAT, CbD, mini-CEX	1,2,3
Manages the patient with acute renal failure requiring both plasmapheresis and acute renal replacement therapy	ACAT, CbD	1,2,3
Behaviours		
Appreciate the role of Intensivist in the management of patients with multiorgan failure and multisystem disease requiring acute renal replacement therapy (and plasma exchange)	ACAT, CbD	3
Appreciate role of nurses in the management of acute renal replacement therapy and plasma exchange	CbD, MSF	3

Level Descriptor

1 Knows the indications for acute dialysis and plasma exchange and potential complications of treatment. Aware of when and how to initiate treatment including prescription of treatment and able to adjust simple dialysis prescriptions based on available data and patients clinical condition. Is able to explain the procedures to the patients and carers.

2 Aware of potential complications of treatment and acts to minimises complications. Able to monitor a course of treatment and adjust prescription according to patient's investigations and progress. Knows about the different methods for each (including acute peritoneal dialysis) and how to select the most appropriate.

3 Can interact with the whole MDT to manage patients undergoing acute dialysis or plasma exchange, understand the psychological effects on patients and their families and discuss prognosis and management clearly with them. Understands the limited evidence base and the place for enrolling patients in trials. Knows when to stop plasma exchange or when to repeat a course of treatment

4. Renal Transplantation

Pre-Transplant Evaluation

To be able to evaluate and manage patients who are suitable for renal transplantation

Knowledge	Assessment Methods	GMP
Recognises the role of renal transplantation in the management of patients with end-stage renal disease	CbD, mini-CEX, ESENeph	1,2
Recalls the principles of renal transplantation, and the medical, surgical ethical, and social contraindications	CbD, mini-CEX, ESENeph	1,2,4
Outlines the benefits and risks of transplantation in comparison with other treatment modalities for end stage renal disease	CbD, mini-CEX, ESENeph	1,2
Describes the advantages and disadvantages of renal transplantation including pre-dialysis renal transplantation	CbD, mini-CEX, ESENeph	1,2
Describes the risks and benefits associated with different organ types e.g. living donor and deceased donor transplantation	CbD, mini-CEX, ESENeph	1,2
Recalls the principles of blood group typing, HLA matching, and donor –recipient cross matching	CbD, mini-CEX, ESENeph	1,2
Recalls the ethical and legal framework (especially the Human Tissue Act) governing renal transplantation	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses suitability of patients with end-stage renal disease for renal transplantation	CbD, mini-CEX	1,2,3
Discusses the issues around living donor transplantation and pre-dialysis transplantation	CbD, mini-CEX	1,2,3
Counsels patients and relatives in all aspects of renal transplantation including living kidney donation	CbD, mini-CEX,	1,2
Assess the suitability of a person as a living kidney donor in accordance with the British Transplant Society Guidelines	CbD, mini-CEX ESENeph	1,2,3,4
Develops and carries out protocols for pre-transplant assessment of recipients and living donors	AA, CbD, mini-CEX, MSF	1,2,3
Behaviours		
Recognises the role of the multidisciplinary team, particularly nurses and live donor programme coordinators, in the initial counselling of potential renal transplant recipients and donors	MSF	1,2,3,4
Recognises the multidisciplinary nature of the management of renal transplant patients	MSF	1,2,3

Level Descriptor

1 Is aware of the principles of renal transplantation and the contraindications to renal transplantation. Is aware of the benefits of renal transplantation and some of the complications

2 Understands the principles of donor and recipient evaluation prior to renal transplantation including blood group typing, HLA matching, and donor-recipient cross-matching

Understands the role of the multidisciplinary team in the evaluation of kidney donors and recipients

3 Is able to counsel patients and relatives in all aspects of renal transplantation. Is able to assess the suitability of potential renal transplant recipients and living kidney donors

Understands the legal framework governing renal transplantation

Acute Stage

To be able to manage patients in the early stages post renal transplant

Knowledge	Assessment Methods	GMP
Outlines the issues that can influence patient and renal transplant survival in the first 3 months following renal transplantation	CbD, mini-CEX, ESENeph	1,2
Lists the medical and surgical problems which occur in the first three months following renal transplant	CbD, mini-CEX, ESENeph	1,2
Recalls the indications for radiological investigation (ultrasound scan, radio-isotope scanning etc) and renal transplant biopsy in the acute stage following renal transplant	CbD, mini-CEX, ESENeph	1,2
Describes the role of renal transplant biopsy and the Banff scoring criteria in the diagnosis of acute rejection	CbD, mini-CEX, ESENeph	1,2
Describes the mode of action and adverse effects of immunosuppressive agents	CbD, mini-CEX, ESENeph	1,2
Recognises the potential for interaction of immunosuppressive agents with other drugs	CbD, mini-CEX, ESENeph	1,2
Recalls the available management strategies for acute transplant rejection	CbD, mini-CEX, ESENeph	1,2
Recalls the factors in the early post transplant stage that influence long term graft function	CbD, mini-CEX, ESENeph	1,2
Skills		
Optimises the graft and patient outcome in the first 3 months after renal transplantation	CbD, mini-CEX	1,2
Assesses the significance of changes in renal transplant function	CbD, mini-CEX	1,2
Investigates renal transplant patients with acute transplant dysfunction and interprets the results of investigations	CbD, mini-CEX	1,2
Evaluates patients with surgical and medical complications of renal transplantation	CbD, mini-CEX	1,2
Plans and modifies immunosuppressive therapy regimens	CbD, mini-CEX	1,2
Counsels patients and relatives in all aspects of renal transplantation	CbD, mini-CEX	1,2,3
Behaviours		
Recognises the multidisciplinary nature of the management of renal transplant patients.	MSF	1,2,3,4

Level Descriptor

1 Understands the basic principles of management in the acute phase of renal transplantation including the mode of action and adverse effects of immunosuppressive agents

Is aware of medical and surgical complications that can occur early post-renal transplant including acute transplant dysfunction

2 Is able to recognise and investigate the medical and surgical complications that occur in the early post-transplant period

3 Is able to manage all aspects of treatment for renal transplants recipients in early post-transplant period in collaboration with the multi-disciplinary team

Is able to recognise and manage all complications including acute transplant dysfunction

Is able to counsel patients and relatives in all aspects of renal transplantation

Long-Term Care

To be able to undertake the long term supervision and management of renal transplant recipients		
Knowledge	**Assessment Methods**	**GMP**
Recalls the factors that can influence long term patient and renal transplant survival	CbD, mini-CEX, ESENeph	1,2
Describes the medical and surgical problems which can occur after the first three months following renal transplant	CbD, mini-CEX, ESENeph	1,2
Lists the causes of renal dysfunction more than 3 months after renal transplantation	CbD, mini-CEX, ESENeph	1,2
Describes the potential long term adverse effects of immunosuppressive agents	CbD, mini-CEX, ESENeph	1,2
Recalls the strategies that maximise long term graft function and survival	CbD, mini-CEX, ESENeph	1,2
Recognises increased risk of cardiovascular and malignant disease in the long term transplant patient and understands the treatment and preventative strategies available	CbD, mini-CEX, ESENeph	1,2
Skills		
Identifies declining transplant function, assesses significance of changes, investigates appropriately, and makes appropriate changes to management	CbD, mini-CEX	1,2
Utilises strategies that optimise long term graft and patient outcomes	CbD, mini-CEX	1,2
Identifies and manages cardiovascular, malignant and infectious problems in renal transplant recipients	CbD, mini-CEX	1,2
Modifies long term immunosuppressive therapy regimens and tailors to an individual patient considering other comorbid conditions and changing circumstances	CbD, mini-CEX	1,2
Minimizes and manage the medical complications of a failing renal transplant	CbD, mini-CEX	1,2
Counsels patients and relatives in all aspects of renal transplantation, including graft failure and preparation for dialysis or re-transplantation	CbD, mini-CEX	1,2,3
Behaviours		
Recognises the benefits of involving patients, relatives, and carers in the management	CbD, mini-CEX	1,2,3,4
Recognises the multidisciplinary nature of the management of renal transplant patients	MSF	1,2,3
Encourages life style modifications to modify cardiovascular risk and promotes self efficacy and self monitoring	CbD, mini-CEX	1,2,3
Level Descriptor		
1 Is aware of the causes of renal transplant dysfunction after 3 months post renal transplant Is aware of the medical and surgical complications that may occur after 3 months post renal transplant		
2 Is aware of how to investigate and manage late renal transplant dysfunction Is aware of strategies that minimise the risk of complications after 3 months post renal transplant		
3 Is able to manage all aspects of treatment of the renal transplant recipient after 3 months post		

transplant in manner that maximises transplant survival and minimises complications in the recipient

Is able to counsel patients and relatives in all aspects of renal transplantation

E. Special Circumstances

1. Sexual Health Issues

Male Sexual Health

To be able to undertake an initial assessment, investigation and management of a patient with a sexual health concern including erectile dysfunction

Knowledge	Assessment Methods	GMP
Recalls the common pathological, pharmacological and emotional causes of male sexual health problems including erectile dysfunction	CbD, mini-CEX, ESENeph	1,2
Describes the common forms of treatment available and common contraindications	CbD, mini-CEX, ESENeph	1,2
Skills		
Assesses and investigates a patient with erectile dysfunction	CbD, mini-CEX	1,2
Modifies treatment regimes which may underlie or contribute to the problem	CbD, mini-CEX	1,2
Behaviours		
Sensitively discuss sexual health concerns with a patient including erectile dysfunction and fertility issues.	CbD, mini-CEX	1,2,3,4
Refers to other Specialists e.g Urologists appropriately for further investigation and management	CbD, mini-CEX	1,2
Refers patients for psychological support when required	CbD, mini-CEX	1,2,3

Level Descriptor

1 Can assess a patient with erectile dysfunction and appropriately investigate for underlying causes Able to sensitively explain and discuss with a patient

2 Able to recognise and modify treatment regimes appropriately which may cause or exacerbate the problem

3 Refers appropriately to other Specialists including Urologists, Psychologists etc

Female Sexual Health: Renal Disorders in Pregnancy

To counsel patients with pre-existing kidney disease or a renal transplant about sexual health issues including fertility, contraception and the implications of pregnancy.

To be able to and manage the renal condition during pregnancy

To undertake a specialist assessment, investigation and management of a patient who develops a renal disorder during pregnancy

Knowledge	Assessment Methods	GMP
Recalls the effects of kidney disease on fertility and recognises the need for safe and effective contraception in patients with renal disease and with a renal transplant	CbD, mini-CEX, ESENeph	1,2
Recalls the effects of pregnancy on renal physiology in normal individuals and those with pre-existing renal disease (including those on renal replacement therapy)	CbD, mini-CEX, ESENeph	1,2
Outlines the potential risks of pregnancy to the mother and foetus in patients with chronic kidney disease (including dialysis and renal transplant)	CbD, mini-CEX, ESENeph	1,2
Recognises the importance of appropriate drug therapy in pregnancy and potential risks of commonly used drugs to the foetus	CbD, mini-CEX	1,2
Recalls how to manage co-morbid medical conditions in patients with pre-existing renal disease, dialysis or a renal transplant during a pregnancy with particular emphasis on minimisation of the risk to mother and foetus	CbD, mini-CEX, ESENeph	1,2
Recognises renal disorders that are inherited and recalls the patterns of inheritance	CbD, mini-CEX, ESENeph	1,2
Skills		
Counsels patients with renal disease, on dialysis or with a renal transplant about the risks and implications of pregnancy and acts to minimise risks to mother and foetus	CbD, mini-CEX	1,2,3
Safely investigates de-novo renal disease in pregnancy or a deterioration in renal function in a pregnant transplant patient	CbD, mini-CEX	1,2
Manages hypertension appropriately in pregnancy	CbD, mini-CEX	1,2
Modifies medication including immunosuppressive drugs appropriately during pregnancy or in a woman planning pregnancy	CbD, mini-CEX	1,2
Recognises and manages the renal consequences of pre-eclampsia and acute renal failure in pregnancy and the puerperium	ACAT, CbD, mini-CEX	1,2
Explains the inheritance of genetic disorders, recognises the need for genetic counselling and refers appropriately	CbD, mini-CEX	1,2,3
Behaviours		
Appreciates the role of the multidisciplinary team including: Obstetricians, midwives and pharmacists in the management of patients both before conception, during pregnancy and post-partum	ACAT, CbD, mini-CEX, MSF	2,3
Discusses sensitively the risks and implications of pregnancy to a patient and their partner/family to enable the woman to make an informed choice	CbD, mini-CEX, MSF	3,4
Level Descriptor		
1 Demonstrates an understanding of normal renal physiological changes of pregnancy and		

	recognises the implications of pregnancy for patients with renal disorders
	Demonstrates an appreciation of the importance of the multi-disciplinary team in the management of pregnancy and renal disease
2	Recognises the common complications of pregnancy in a patient with renal disease and is able to discuss with a patient
	Able to discuss in detail the management of renal consequences of pre-eclampsia and pregnancy related renal failure
3	Able to manage a patient with pre-existing renal disease who become pregnant (in association with MDT)
	Can discuss at an appropriate level inherited renal disorders and the need for genetic counselling with patients and relatives
	Can discuss competently and sensitively the risks and implications of pregnancy to a patient and their partner/family

2. Adult Paediatric Interface

To progressively develop the ability to carry out specialist assessment and treatment of young adults and adolescents with kidney disease progressing from the paediatric renal service to the adult renal service

Knowledge	Assessment Methods	GMP
Recalls the common causes of chronic kidney disease in paediatric patients, and where to obtain information on rarer causes of chronic kidney disease in these patients	CbD, mini-CEX, ESENeph	1,2
Recalls issues of consent and confidentiality in adolescent patients	CbD, mini-CEX, MSF	1,2,3,4
Describes the impact of renal disease on other physical systems within the patient, on the psychosocial functioning of the patient, family, carers, and other professionals (healthcare, colleges etc)	CbD, mini-CEX, MSF	1,2,3,4
Understand the importance of the developmental stage when communicating with adolescents and young adults	CbD, mini-CEX, PS	1
Skills		
Makes an accurate and focussed clinical assessment of patients with kidney disease at the adult/paediatric interface	CbD, mini-CEX, ESENeph	1,2,3
Treats the patient holistically and sensitively in accordance with the patient's wishes and taking account of the needs and wishes of the carers and family members of the patient	CbD, mini-CEX, MSF	1,2,3,4
Manages the change of environment and/or geographical area within which the patient will be managed	CbD, mini-CEX, MSF	3,4
Manages the change in personnel and referral systems applicable to chronic kidney disease patients, dialysis patients and transplant patients at the paediatric/adult interface	CbD, mini-CEX, MSF	3,4
Recognises when the timing of referral from paediatric service/young persons/ **adolescent** service to adult renal services is appropriate	AA, CbD, mini-CEX, MSF	1,2,3,4
Behaviours		
Actively involves patients, carers and the wider multi-disciplinary team in long term care of the patient, liaising with primary care and other clinical services (e.g. diabetes, urology, etc).	CbD, mini-CEX, MSF	2,3,4
Recognises that the multi-disciplinary team involved in the care of young adults may be broader than that involved with older adults and might involve specialised psychological and social services, etc	CbD, mini-CEX, MSF	2,3,4
Works closely with paediatricians and the adult and paediatric multi-disciplinary teams to draw up protocols for transition to adult renal services	AA, MSF	2,3,4
Recognises the individual needs of patients at the point of transfer especially taking account of young people with special needs or learning disabilities	CbD, mini-CEX, MSF	3,4

Level Descriptor

1 Can list the main causes of kidney disease in young people which might be associated with long term survival and require transfer into adult services. Manages young adult patients following transfer to adult services under supervision

2 Manages young adult patients following transfer, involving the wider multi-disciplinary team as

	appropriate
3	Involved in the management of patients during and after transfer, leading the wider multi-disciplinary team as appropriate

3. Nutrition in Patients with Renal Disease

To identify, understand and manage the nutritional needs of patients with kidney disease		
Knowledge	**Assessment Methods**	**GMP**
Recognises the wide range of nutritional issues facing renal patients and special dietary regimes prescribed (e.g. low protein diet in chronic kidney disease)	CbD, mini-CEX, ESENeph	1,2
Recognises the relationship between adequacy of dialysis and nutrition	CbD, mini-CEX, ESENeph	1,2
Recalls the treatment strategies for hyperlipidaemia in patients with kidney disease	CbD, mini-CEX, ESENeph	1
Skills		
Considers a patient's nutritional status and provides appropriate nutritional advice with the support of dieticians	ACAT, CbD, mini-CEX	1,2
Manages the nutritional needs of patients with acute kidney injury and other complex multisystem disorders	ACAT, CbD, mini-CEX	1,2,3
Behaviours		
Appreciates the role of the dietetic team and works in partnership with the wider multidisciplinary team (primary care team, other specialists) to meet patients' nutritional needs	ACAT, CbD, MSF	1,3
Level Descriptor		
1 Able to recognise and manage the range of common nutritional issues arising in patients with acute kidney injury, chronic kidney disease, or in patients on dialysis or with a renal transplant		
2 Able to recognise and manage more complex nutritional problems in patients with all forms of renal disease in collaboration with dietetic and other specialist colleagues		
3 Can competently discuss complex nutritional issues with patients and carers		

F. Investigational and Procedural Competencies

1. Native Kidney Biopsy

1. To state the indications for and potential complications of a native renal biopsy
2. To competently perform a native kidney biopsy (OPTIONAL*)

Knowledge	Assessment Methods	GMP
Lists the indications for a renal biopsy	CbD, mini-CEX, ESENeph	1,2
Describes the anatomy of the native kidneys	CbD, DOPS, mini-CEX, ESENeph	1,2
Lists the contraindications to performing a renal biopsy	CbD, mini-CEX, ESENeph	1,2
Lists the potential complications of a renal biopsy	CbD, mini-CEX, ESENeph	1,2
Skills		
Minimises and manages complications of renal biopsy	ACAT, CbD, mini-CEX	1,2
Interprets the renal biopsy findings with the assistance of a Histopathologist	CbD, mini-CEX	1,2
Discusses the indication, perceived benefits and potential risks of the procedure with a patient or relative in a manner that facilitates informed consent	ACAT, mini-CEX	1,2,3,4
Discusses the biopsy findings with a patient to enable shared decision making regarding treatment options	mini-CEX	1,2,3,4
**Utilises ultrasound to localize kidneys and use ultrasound guidance to assist in renal biopsy (optional)*	DOPS	1,2
**Able to competently perform a native kidney biopsy*	DOPS	1,2
Behaviours		
Provides appropriate information to patients and checks understanding	MSF, PS	2,3,4
Appreciates the role of the radiologist or radiographer (if appropriate) and Histopathologist	CbD, MSF	2,3
**Uses appropriate technique to minimise risk of infection when performing a kidney biopsy (optional)*	DOPS	2
**Has appropriate self-confidence and recognition of limitations when performing a kidney biopsy (optional)*	DOPS, MSF	2,4
**Audits personal technical performance when performing kidney biopsy against standards (optional)*	AA	2,3

Level Descriptor

1 Knows the indications for native kidney biopsy, and is aware of the contraindications and potential complications of the procedure

2 Can confidently discuss the indications for a kidney biopsy and the potential risk of complications (versus benefits) with patients and carers in order to obtain informed consent

Knows how to minimise the risk of complications and how to manage complications which may

	arise
3	Able to confidently discuss the results of a renal biopsy with a patient in a way that enables the patient to be involved in decisions regarding acute and long term treatment options.
4	*(OPTIONAL)* *Can competently perform a renal biopsy and is aware of own performance compared to recognised standards and regularly audits performance*

*Additional competencies required to demonstrate competence to perform a renal biopsy as an operator are shown in italics.

2. Renal Transplant Biopsy

1. To state the indications for and potential complications of a renal transplant biopsy
2. To perform transplant kidney biopsy (OPTIONAL)*

Knowledge	Assessment Methods	GMP
Describes the anatomy of a transplanted kidney	CbD, DOPS, mini-CEX, ESENeph	1,2
Lists the indications for a renal transplant biopsy	CbD, mini-CEX, ESENeph	1,2
Lists the contraindications to performing a renal transplant biopsy	CbD, mini-CEX, ESENeph	1,2
Lists the potential complications of a renal transplant biopsy	CbD, mini-CEX, ESENeph	1,2
Skills		
Minimises and manages complications of renal transplant biopsy	ACAT, CbD, mini-CEX, ESENeph	1,2
Interprets the biopsy findings with the assistance of a Histopathologist	CbD, ESENeph	2,3
Discusses the biopsy findings with a patient to enable shared decision-making regarding treatment options	ACAT, CbD, mini-CEX	1,3,4
Discusses the indication, perceived benefits and potential risk of the procedure with a patient or relative in a manner that facilitates informed consent	ACAT, CbD, mini-CEX	1,3,4
Able to competently perform a renal transplant biopsy (optional)	*DOPS*	*1,2*
Behaviours		
Provides appropriate information to patients to facilitate informed consent	ACAT, mini-CEX	1,3,4
**Uses appropriate technique to minimise risk of infection*	*DOPS*	*2*
**Has appropriate self-confidence and recognition of limitations when performing a renal transplant biopsy*	*DOPS, MSF*	*2*
**Audits personal technical performance against standards*	*AA*	*2*

Level Descriptor

1 Knows the indications for renal transplant biopsy, and is aware of the contraindications and potential complications of the procedure

2 Can confidently discuss the indications for a renal transplant kidney biopsy and the potential risk of complications (versus benefits) with patients and carers in order to obtain informed consent

Knows how to minimise the risk of complications and how to manage complications which may arise

3 Able to confidently discuss the results of a renal transplant kidney biopsy with a patient in a way that enables the patient to be involved in decisions regarding acute and long term treatment options

4 *(OPTIONAL)*

Can competently perform a renal transplant kidney biopsy and is aware of own performance compared to recognised standards and regularly audits performance

*Additional competencies required to demonstrate competence to perform a renal biopsy as an operator are shown in italics.

3. Insertion of Temporary Haemodialysis Catheters

To insert and manage temporary haemodialysis catheters

Knowledge	Assessment Methods	GMP
Understands and describes the anatomy of the central venous system in the upper thorax, neck and femoral veins	CbD, DOPS	1,2
Defines the indications for insertion of temporary haemodialysis catheters and the relative merits and problems associated with each site of insertion	CbD, DOPS, ACAT	1,2
Describes the complications associated with temporary haemodialysis catheter insertion, the methods of minimising these complications and their treatment should they occur	ACAT, CbD, DOPS	1,2
Describes the treatment of catheter related sepsis and blocked catheters	ACAT, CbD	1,2
Skills		
Able to discuss the indications, benefits and adverse events of the procedure to patients, relatives and carers in a manner that will allow informed consent	DOPS	1,2,3,4
Able to perform insertion of temporary haemodialysis catheters using the Seldinger technique and ultrasound guidance for bilateral internal jugular and femoral veins	DOPS	1,2
Describes the anatomical method of insertion of temporary haemodialysis catheters in all central vein positions	CbD, DOPS	1
Explains the use of the catheter and its management to the patient, relatives and carers	DOPS, mini-CEX	1,3,4
Behaviours		
Appreciates the role of the dialysis/ward nurses in the management of a temporary haemodialysis catheter after its insertion and to ensure education of patients and carers	CbD, mini-CEX, MSF	3
Demonstrates appropriate self-confidence in terms of line insertion and recognition of limitations	DOPS	2,4

Level Descriptor

1 Defines the indications for insertion of temporary haemodialysis catheters

Can demonstrate the anatomy of central venous system and is able to insert temporary haemodialysis catheters using ultrasound guidance under supervision

Knows the potential complications of the procedure and acts to minimise them

2 Can confidently discuss the indications, benefits and complications of the procedure with patients and carers in order to obtain informed consent

Demonstrates competence in temporary haemodialysis catheter insertion (including taking informed consent) in the neck and femoral veins using ultrasound guidance

3 Demonstrates a comprehensive and competent ability to insert temporary haemodialysis catheters at any site

Demonstrates ability to manage catheter related sepsis, blocked catheters and other line related complications

Can confidently discuss line management with nurses and family members

4. Additional Procedural Competencies

This Curriculum defines the minimum level of competence required to achieve a CCT in Renal Medicine. It is mandatory for all trainees to acquire basic competences with respect to native and transplant renal biopsy as described in Section 2.1. To demonstrate competence *to perform* a native or transplant kidney biopsy the additional skills and attitudes described in Good Clinical Care Section B must be demonstrated and assessed by DOPS as described in the ARCP Grid (page 111).

4 Learning and Teaching

4.1 The training programme

The organisation and delivery of postgraduate training is the statutory responsibility of the General Medical Council (GMC) which devolves responsibility for the local organisation and delivery of training to the Deaneries. Each Deanery oversees a "School of Medicine" which is comprised of the regional Training Committees (STCs) in each medical Specialty. Responsibility for the organisation and delivery of Renal Medicine training in each Deanery is, therefore, the remit of the regional Renal Medicine STC. Each STC has a Training Programme Director who coordinates the local training programme in Renal Medicine.

The exact structure of the training programme may vary between Deaneries. Generally, a training programme will consist of 6-12 month clinical placements in Renal Medicine. A training rotation may involve placements in a renal unit based in a District General Hospital or in a University Teaching Hospital. The renal services in these two types of hospital are broadly similar, with the exception that renal transplantation mostly takes place in University Teaching Hospitals. Many renal units also manage satellite haemodialysis units, either in other hospitals or in community based facilities. At least six months of the placements from ST3 onwards should be spent in a post (or posts) involving the management of renal transplant patients, of which three months should be in a post involving the management of patients in the immediate post-transplant period.

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the entire curriculum is covered and also that unnecessary duplication and educationally unrewarding experiences are avoided. However, the sequence of training should ideally be flexible enough to allow the trainee to develop a special interest.

Trainees in Renal Medicine are encouraged to take an active interest in research, education and in leadership. Trainees may wish to take a period of out of the training programme to pursue a project or further degree in these areas. If a trainee also regularly takes part in clinical nephrology work in a recognised post during research, this may count towards the clinical nephrology years required for training if prospectively recognised by GMC.
Renal Medicine trainees may undertake training as Integrated NIHR Academic Clinical Fellows or Clinical Lecturers.

Renal Medicine trainees are adult learners and take responsibility for their own education. It is the responsibility of the trainers to ensure that the trainee has adequate access to educational opportunities and it is the trainees responsibility to be pro-active in identifying areas where they need to improve their knowledge, skills or behaviours. Trainees should take advantage of informal and formal educational opportunities in their departments and be enthusiastic in seeking educational opportunities to address gaps in their education.

Acting up as a consultant (AUC)

"Acting up" provides doctors in training coming towards the end of their training with the experience of navigating the transition from junior doctor to consultant while maintaining an element of supervision.

Although acting up often fulfills a genuine service requirement, it is not the same as being a locum consultant. Doctors in training acting up will be carrying out a consultant's tasks but with the understanding that they will have a named supervisor at the hosting hospital and that the designated supervisor will always be available for support, including out of hours or during on-call work. Doctors in training will need to follow the rules laid down by the Deanery / LETB within which they work and also follow the JRCPTB rules which can be found at www.jrcptb.org.uk/trainingandcert/Pages/Out-of-Programme.

4.2 Teaching and learning methods

Renal Medicine trainees are adult learners and take responsibility for their own education. It is the responsibility of the trainers to ensure that the trainee has adequate access to educational opportunities and it is the trainees responsibility to be pro-active in identifying areas where they need to improve their knowledge, skills or behaviours. Trainees should take advantage of informal and formal educational opportunities in their departments and be enthusiastic in seeking educational opportunities to address gaps in their education.

The curriculum will be delivered through a variety of learning experiences. Trainees will learn from practice, clinical skills appropriate to their level of training and to their attachment within the department.

Trainees will achieve the competencies described in the curriculum through a variety of learning methods. There will be a balance of different modes of learning from formal teaching programmes to experiential learning 'on the job'. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a rotation.

This section identifies the types of situations in which a trainee will learn.

Learning with Peers - There are many opportunities for trainees to learn with their peers. Local postgraduate teaching opportunities allow trainees of varied levels of experience to come together for small group sessions. Examination preparation encourages the formation of self-help groups and learning sets.

Work-based Experiential Learning - The content of work-based experiential learning is decided by the local faculty for education but includes active participation in:

- Medical clinics including Renal Medicine clinics. After initial induction, trainees will review patients in outpatient clinics, under direct supervision. The degree of responsibility taken by the trainee will increase as competency increases. As experience and clinical competence increase trainees will assess 'new' and 'review' patients and present their findings to their clinical supervisor.
- Renal Medicine-specific takes, unselected emergency admissions
- Consultant ward rounds following unselected emergency admission duties
- Personal ward rounds and provision of ongoing clinical care on specialist medical ward attachments. Every patient seen, on the ward or in out-patients, provides a learning opportunity, which will be enhanced by following the patient through the course of their illness: the experience of the evolution of patients' problems over time is a critical part both of the diagnostic process as well as management. Patients seen should provide the basis for critical reading and reflection of clinical problems.

- Consultant-led ward rounds. Every time a trainee observes another doctor, consultant or fellow trainee, seeing a patient or their relatives there is an opportunity for learning. Ward rounds, including those post-take, should be led by a consultant and include feedback on clinical and decision-making skills.
- Multi-disciplinary team meetings. There are many situations where clinical problems are discussed with clinicians in other disciplines. These provide excellent opportunities for observation of clinical reasoning.
- Procedure lists. A trainee will initially observe and then receive training in practical procedure skills including native and transplant renal biopsy and dialysis catheter insertion.

Trainees have supervised responsibility for the care of in-patients. This includes day-to-day review of clinical conditions, note keeping, and the initial management of the acutely ill patient with referral to and liaison with clinical colleagues as necessary. The degree of responsibility taken by the trainee will increase as competency increases. There should be appropriate levels of clinical supervision throughout training with increasing clinical independence and responsibility as learning outcomes are achieved (see Section 5: Feedback and Supervision).

Formal Postgraduate Teaching – The content of these sessions are determined by the local faculty of medical education and will be based on the curriculum. There are many opportunities throughout the year for formal teaching in the local postgraduate teaching sessions and at regional, national and international meetings. Many of these are organised by the Royal Colleges of Physicians.

Suggested activities include:

- A programme of formal bleep-free regular teaching sessions to cohorts of trainees (e.g. a weekly core training hour of teaching within a Trust)
- Case presentations
- Journal clubs
- Research and audit projects
- Lectures and small group teaching
- Grand Rounds
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence based medicine and journal clubs
- Joint Renal Medicine meetings
- Attendance at training programmes organised on a deanery or regional basis, which are designed to cover aspects of the training programme outlined in this curriculum.

Independent Self-Directed Learning -Trainees will use this time in a variety of ways depending upon their stage of learning. Suggested activities include:

- Reading, including web-based material
- Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)
- Audit and research projects
- Reading journals
- Achieving personal learning goals beyond the essential, core curriculum

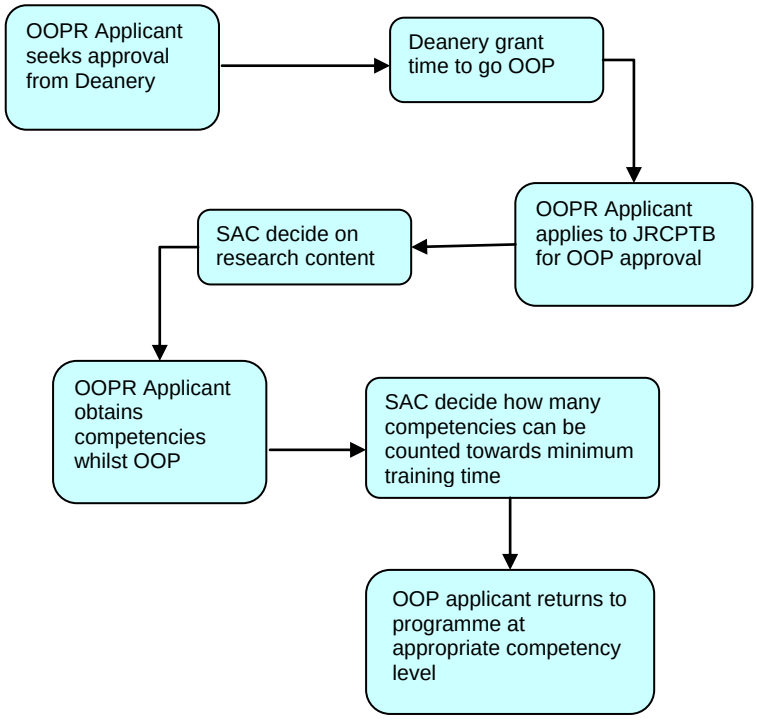
Formal Study Courses - Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include management courses and communication courses.

4.3 Research

Trainees, who wish to acquire research competencies, in addition to those specified in their specialty curriculum, may undertake a research project as an ideal way of obtaining those competencies. For those in specialty training, one option to be considered is that of taking time out of programme to complete a specified project or research degree. Applications to research bodies, the deanery (via an OOPR form) and the JRCPTB (via a Research Application Form) are necessary steps, which are the responsibility of the trainee. The JRCPTB Research Application Form can be accessed via the JRCPTB website. It requires an estimate of the competencies that will be achieved and, once completed, it should be returned to JRCPTB together with a job description and an up to date CV. The JRCPTB will submit applications to the relevant SACs for review of the research content including an indicative assessment of the amount of clinical credit (competence acquisition) which might be achieved. This is likely to be influenced by the nature of the research (eg entirely laboratory-based or strong clinical commitment), as well as duration (eg 12 month Masters, 2-year MD, 3-Year PhD). On approval by the SAC, the JRCPTB will advise the trainee and the deanery of the decision. The deanery will make an application to the GMC for approval of the out of programme research. All applications for out of programme research must be prospectively approved.

Upon completion of the research period the competencies achieved will be agreed by the OOP Supervisor, Educational Supervisor and communicated to the SAC, accessing the facilities available on the JRCPTB ePortfolio. The competencies achieved will determine the trainee's position on return to programme; for example if an ST3 trainee obtains all ST4 competencies then 12 months will be recognised towards the minimum training time and the trainee will return to the programme at ST5. This would be corroborated by the subsequent ARCP.

This process is shown in the diagram below:



Funding will need to be identified for the duration of the research period. Trainees need not count research experience or its clinical component towards a CCT

programme but must decide whether or not they wish it to be counted on application to the deanery and the JRCPTB.

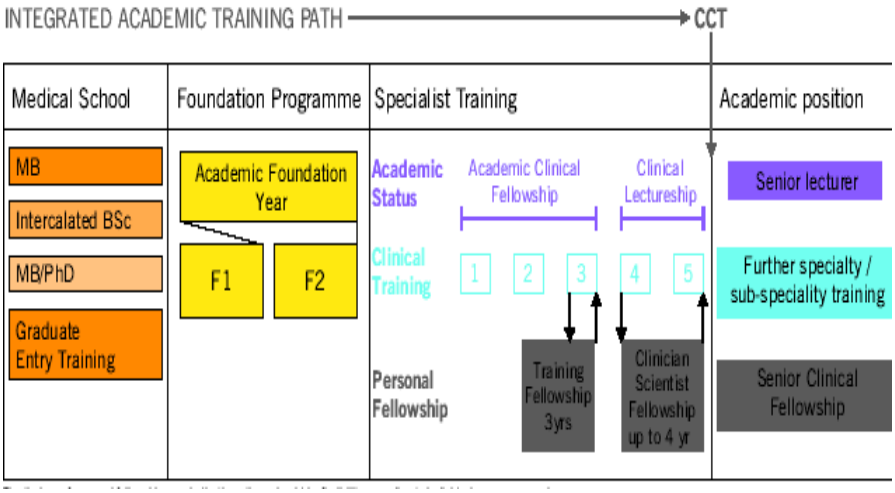
A maximum period of 3 years out of programme is allowed and the SACs will recognise up to 12 months towards the minimum training times.

4.4 Academic Training

The importance and relevance of academic training and participation in research is outlined in many key medical education documents and is traditionally valued in Renal Medicine:
It is acknowledged in the GMC Good Medical Practice (2006) Guidelines that 'maintaining an interest in research findings or engaging or participating in research activities is an aspect of maintaining good medical practice' for all doctors. In addition, the generic standards for training of GMC state (Section 6.25 and 6.26) that it is mandatory for all Trainees "to be exposed during their training to the academic opportunities available in their Specialty (6.25) and that 'Trainees who recognise that their particular skills and aptitude are well-suited to an academic career should be encouraged and guided in that endeavour (6.26). More recently, the Gold Guide emphasises the importance of research and academic medicine in the training of Speciality trainees.

In addition to the generic training required of all doctors in Speciality training programmes some Renal Speciality trainees will wish to develop a career in academic medicine and may wish to undertake a period of academic training either in an integrated academic training pathway or as a period of out of training programme experience.

1. Trainees appointed to an NIHR integrated academic training pathway



NIHR Integrated Academic training posts

Trainees selected for an integrated academic training path will be allocated an NTN (A) in the appropriate speciality. For trainees who already hold an NTN this will be converted to an NTN (A).

Clinical Lectureship (CL) – up to 4 years.
These posts are designed for Speciality trainees with a higher degree (i.e. following a research fellowship). The CL will provide "post-doctoral" academic training and induction into other aspects of academic life. In addition, Clinical Lecturers will be expected to gain independent research funding.

CL will complete Speciality training within four years under the terms of the “Gold Guide”.

It is anticipated that following CCT, the post holders will move on to established academic posts (Senior Lecturer/Hon. Consultant), to senior research fellowships or to NHS consultant posts.

Failure to progress academically (see below) will lead to a return to a conventional Renal Medicine training programme and loss of the NIHR funding.

A small number of trainees may commence Specialty training in Renal Medicine whilst completing a 3 year Academic Clinical fellowship post in ST3.

2. A Speciality trainee with approval of the Postgraduate Dean to take time out of programme for a period of research (OOPR) (see Section 4.3).

3. A trainee may be appointed as a Clinical Lecturer with a University.

Academic integrated pathways to CCT are
a) considered fulltime CCTs as the default position and
b) are run through in nature.

The academic programmes are CCT programmes and the time set for the CCT is the same for academic trainees. If a trainee fails to achieve all the required competencies within the notional time period for the programme, this would be considered at the ARCP, and recommendations to facilitate completion of clinical training would be made (assuming other progress to be satisfactory) see the guidelines for monitoring training and progress http://www.academicmedicine.ac.uk/careersacademicmedicine.aspx. Please note that NIHR funding cannot be extended to allow a trainee to achieve the remaining clinical competencies. Extension of a CCT date will be in proportion depending upon the nature of the research and will ensure full capture of the specialty outcomes set down by the Royal College and approved by GMC.

5 Assessment

5.1 The assessment system

The purpose of the assessment system is to:

- enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, measure their own performance and identify areas for development;
- drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience;
- provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme;
- ensure trainees are acquiring competencies within the domains of Good Medical Practice*;*
- assess trainees’ actual performance in the workplace;
- ensure that trainees possess the essential underlying knowledge required for their Renal Medicine;

- inform the Annual Review of Competence Progression (ARCP), identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme;
- identify trainees who should be advised to consider changes of career direction.

The integrated assessment system comprises of workplace-based assessments and knowledge – base assessments. Individual assessment methods are described in more detail below.

Workplace-based assessments will take place throughout the training programme to allow trainees to continually gather evidence of learning and to provide trainees with formative feedback. They are not individually summative but overall outcomes from a number of such assessments provide evidence for summative decision making. The number and range of these will ensure a reliable assessment of the training relevant to their stage of training and achieve coverage of the curriculum.

5.2 Assessment Blueprint

In the syllabus (3.3) the "Assessment Methods" shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used.

5.3 Assessment methods

The following assessment methods are used in the integrated assessment system:

Examinations and certificates

- European Specialty Examination Nephrology (ESENeph)
- Advanced Life Support Certificate (ALS)

The Federation of Royal Colleges of Physicians of the UK, in association with the British Renal Society has developed a Specialty Certificate Examination. The aim of this national assessment is to assess a trainee's knowledge and understanding of the clinical sciences relevant to specialist medical practice and of common or important disorders to a level appropriate for a newly appointed consultant. The Renal Medicine Certificate Examination is a prerequisite for attainment of the CCT.

Information about MRCP(UK) and the ESENeph, including guidance for candidates, is available on the MRCP(UK) website www.mrcpuk.org

Workplace-based assessments WPBAs

- Multi-Source Feedback (MSF)
- mini-Clinical Evaluation Exercise (mini- CEX)
- Direct Observation of Procedural Skills (DOPS)
- Case-Based Discussion (CbD)
- Acute Care Assessment Tool (ACAT)
- Audit Assessment (AA)
- Teaching Observation (TO)

These methods are described briefly below. More information about these methods including guidance for trainees and assessors is available in the ePortfolio and on the JRCPTB website www.jrcptb.org.uk. Workplace-based assessments should be recorded in the trainee's ePortfolio. The workplace-based assessment methods

include feedback opportunities as an integral part of the assessment process, this is explained in the guidance notes provided for the techniques.

Multisource feedback (MSF)
This tool is a method of assessing generic skills such as communication, leadership, team working, reliability etc, across the domains of Good Medical Practice. This provides objective systematic collection and feedback of performance data on a trainee, derived from a number of colleagues. 'Raters' are individuals with whom the trainee works, and includes doctors, administration staff, and other allied professionals. The trainee will not see the individual responses by raters, feedback is given to the trainee by the Educational Supervisor.

Mini-Clinical Evaluation Exercise (mini-CEX)
This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. The mini-CEX can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available.

Direct Observation of Procedural Skills (DOPS)
A DOPS is an assessment tool designed to assess the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development.

Case based Discussion (CbD)
The CbD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should include discussion about a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

Acute Care Assessment Tool (ACAT)
The ACAT is designed to assess and facilitate feedback on a doctor's performance during their practice on the Acute Medical Take. Any doctor who has been responsible for the supervision of the Acute Medical Take can be the assessor for an ACAT.

Audit Assessment Tool (AA)
The Audit Assessment Tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation OR on a presentation of the audit at a meeting. If possible the trainee should be assessed on the same audit by more than one assessor.

Teaching Observation (TO)
The Teaching Observation tool is designed to provide structured, formative feedback to trainees on their competence at teaching. The Teaching Observation can be based on any instance of formalised teaching by the trainee who has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors).

5.4 Decisions on progress (ARCP)

The Annual Review of Competence Progression (ARCP) is the formal method by which a trainee's progression through her/his training programme is monitored and recorded. ARCP is not an assessment – it is the review of evidence of training and assessment. The ARCP process is described in A Reference Guide for Postgraduate Renal Medicine Training in the UK (the "Gold Guide" – available from www.mmc.nhs.uk). Deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the trainee's ePortfolio.

The ARCP Decision Aid is included in section 5.5, giving details of the evidence required of trainees for submission to the ARCP panels.

5.5 ARCP Decision Aid

Assessment Level (see detailed descriptors in the curriculum)	Level 1		Level 2-3		Level 3-4
Dual CCT*	End ST3	End ST4	End ST5	End ST6 = PYA	End ST7
Single CCT	End ST3		End ST4 = PYA		End ST5
<u>Core Competencies</u> 1. Clinical Skills 2. Time management/Decisions 3. Patient focus and safety 4. Team working /Communication 5. Quality Improvement 6. Infection Control 7. Heath promotion/public health 8. Ethics/confidentiality 9. Consent and Legal Framework 10. Ethical Research 11. Evidence and guidelines 12. Audit 13. Teaching and Training 14. Personal Behaviour 15. Management/NHS Structure	Core competencies to be evaluated using work-place assessment tools (below) using level descriptors. Minimum 1 audit (completed AAT)		Core competencies to be evaluated using work-place assessment tools (below) using level descriptors. Shortfalls to be identified at PYA. Minimum 1 audit (completed AAT) Demonstrate involvement in portfolio research (+ online NIHR training)		Focus on complex situations, decision making skills and team-leadership. Involved in management project (e.g. service delivery or development) and related Audit (AAT) Management course.
<u>Renal Specific: Good Clinical Care</u> 1. Common presentations 2. Advanced kidney disease management 3. Special Situations/skills 4. Leadership	Spectrum of mini-CEX, CbD, ACAT (minimum 2 each per year) that demonstrate satisfactory progress to appropriate level (see descriptors), focussing on common presentations and renal replacement		Spectrum of mini-CEX, CbD, ACAT (minimum 2 each per year) that demonstrate satisfactory progress to appropriate level (see descriptors), to include special situations/skills, rarer diseases. Shortfalls to be identified at PYA.		mini-CEX, CbD, ACAT that assess more advanced aspects of clinical care and leadership – e.g. conducting rounds and QA sessions
<u>Assessment Framework</u> 1. ESENeph 2. MSF 3. Clinical Supervisors report 4. ALS	Opportunity to pass Satisfactory Satisfactory Valid		Opportunity to pass Optional Satisfactory Valid		Passed Satisfactory Satisfactory Valid
<u>Procedures</u> (*minimum* documentation)**	Per procedure: x6 satisfactory DOPS, 3 different assessors on at least 2 occasions				

*In assessment of trainees undertaking dual training the level for a given ST year will depend on education opportunity likely to reflect local deanery arrangements.

** Essential: Non-tunnelled intravenous dialysis catheters. Non-essential: renal biopsy, tunnelled intravenous dialysis catheters, non-surgical insertion of peritoneal dialysis catheters

5.6 Penultimate Year Assessment (PYA)

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. JRCPTB and the deanery will coordinate the appointment of this assessor. This is known as “PYA”. Whilst the ARCP will be a review of evidence, the PYA will include a face to face component.

5.7 Complaints and Appeals

The MRCP(UK) office has complaints procedures and appeals regulations documented in its website which apply to all examinations run by the Royal Colleges of Physicians including the ESENeph.

All WPBA method outcomes must be used to provide feedback to the trainee on the effectiveness of the education and training where consent from all interested parties has been given. If a trainee has a complaint about the outcome from a specific assessment this is their first opportunity to raise it.

Appeals against decisions concerning in-year assessments will be handled at deanery level and deaneries are responsible for setting up and reviewing suitable processes. If a formal complaint about assessment is to be pursued this should be referred in the first instance to the chair of the Specialty Training Committee who is accountable to the regional deanery. Continuing concerns should be referred to the Associate Dean.

6 Supervision and feedback

This section of the curriculum describes how Speciality trainees will be supervised, and how they will receive feedback on performance

All training in Renal Medicine should be conducted in institutions with appropriate standards of clinical governance and that meet the relevant Health and Safety standards for clinical areas. Training placements must also comply with the European Working Time Directive for trainee doctors and relevant GMC requirements

6.1 Supervision

The GMC Standards for training require that all trainees have a designated educational supervisor who will meet with them regularly to identify learning needs and review their progress. The responsibilities of supervisors have been defined by GMC in the “Operational Guide for the PMETB Quality Framework”. These definitions have been agreed with the National Association of Clinical Tutors, the Academy of Medical Royal Colleges and the Gold Guide team at MMC, and are reproduced below:

Clinical supervisor
“Is a trainer who is selected and appropriately trained to be responsible for overseeing a specified trainee’s clinical work and providing constructive feedback during a training placement. Some training schemes appoint an Educational Supervisor for each placement. The roles of Clinical and Educational Supervisor may then be merged”.

Educational supervisor
“Is a trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee’s educational progress during a

training placement or series of placements. The Educational Supervisor is responsible for the trainee's Educational Agreement".

During a placement the trainee will work with a Clinical Supervisor who is responsible for overseeing a trainee's clinical work and providing constructive feedback on performance. The Clinical Supervisor will be involved in conducting some work based assessments and will liaise with the Educational Supervisor.

Trainees will at all times have a named Educational Supervisor and Clinical Supervisor, responsible for overseeing their education. Depending on local arrangements and in some training schemes the roles of clinical and educational supervisor may be merged.

The Educational Supervisor, who is appointed by the Training Programme Director, is responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements. In this role they will conduct regular appraisals, provide feedback to the trainee and document progress in the e-portfolio.

The Educational Supervisor is responsible for the trainees learning agreement. The Educational Supervisor will provide a report to Annual Review of Competence Progression (ARCP) panel and provide feedback to the trainee on the ARCP outcome.

The Educational Supervisor will sometimes be involved in supporting the educational needs of trainees with difficulties and should be aware of the local employer and deanery mechanisms available to support trainees in difficulty.

The Educational Supervisor, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward clinical incidents involving the trainee. The Educational Supervisor should be part of the clinical Renal Medicine team. Thus if the clinical directorate (clinical director) have any concerns about the performance of the trainee, or there were issues of doctor or patient safety, these would be discussed with the Educational Supervisor. These processes, which are integral to trainee development, must not detract from the statutory duty of the employer to deliver effective clinical governance through its management systems.

Quality and governance of training is a vital cornerstone of clinical governance. The GMC standards for trainers clearly state the minimum training required of all trainers by January 2010. In addition, the GMC Good Medical Practice document clearly states that clinical teachers must develop appropriate skills and are responsible for the appropriate supervision of doctors in training. It is essential that all Clinical and Educational Supervisors of Renal Speciality trainees achieve and maintain a level of training commensurate with their role.

All elements of work in training posts must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure and case mix undertaken. Outpatient and referral supervision must routinely include the opportunity to personally discuss all cases if required. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

Trainers must be supported in their role by a postgraduate medical education team and have a suitable job plan with an appropriate workload and time to supervise trainees

Opportunities for feedback to trainees about their performance will arise through the use of the workplace-based assessments, regular appraisal meetings with supervisors, other meetings and discussions with supervisors and colleagues, and feedback from ARCP.

6.2 Feedback

Frequent and timely feedback on performance is essential for successful work-based experiential learning. To train as a physician, a doctor must develop the ability to seek and respond to feedback on clinical practice from a range of individuals to meet the requirements of Good Medical Practice and revalidation.

Constructive feedback should be provided by Clinical and Educational Supervisors throughout training in both formal and informal settings. Opportunities for feedback will arise during appraisal meetings, when trainees are undergoing workplace-based assessments, in the workplace setting, and through discussions with supervisors, trainers, assessors and those within the team.

6.3 Appraisal

A formal process of appraisals and reviews underpins training. This process ensures adequate supervision during training, provides continuity between posts and different supervisors and is one of the main ways of providing feedback to trainees. All appraisals should be recorded in the ePortfolio

Induction Appraisal

The trainee and educational supervisor should have an appraisal meeting at the beginning of each post to review the trainee's progress so far, agree learning objectives for the post ahead and identify the learning opportunities presented by the post. Reviewing progress through the curriculum will help trainees to compile an effective Personal Development Plan (PDP) of objectives for the upcoming post. This PDP should be agreed during the Induction Appraisal. The trainee and supervisor should also both sign the educational agreement in the e-portfolio at this time, recording their commitment to the training process.

Mid-point Review

This meeting between trainee and educational supervisor is mandatory (except when an attachment is shorter than 6 months), but is encouraged particularly if either the trainee or educational or clinical supervisor has training concerns or the trainee has been set specific targeted training objectives at their ARCP. At this meeting trainees should review their PDP with their supervisor using evidence from the e-portfolio. Workplace-based assessments and progress through the curriculum can be reviewed to ensure trainees are progressing satisfactorily, and attendance at educational events should also be reviewed. The PDP can be amended at this review.

End of Attachment Appraisal

Trainees should review the PDP and curriculum progress with their educational supervisor using evidence from the e-portfolio. Specific concerns may be highlighted from this appraisal. The end of attachment appraisal form should record the areas where further work is required to overcome any shortcomings. Further evidence of

competence in certain areas may be needed, such as planned workplace-based assessments, and this should be recorded. If there are significant concerns following the end of attachment appraisal then the programme director should be informed

7 Managing curriculum implementation

7.1 Intended use of curriculum by trainers and trainees

This curriculum and ePortfolio are web-based documents which are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) website www.jrcptb.org.uk.

The educational supervisors and trainers can access the up-to-date curriculum from the JRCPTB website and will be expected to use this as the basis of their discussion with trainees. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

Each trainee will engage with the curriculum by maintaining a portfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

Local management of the curriculum is the responsibility of the local faculty of Education (STC, Training Programme Director, and Educational Supervisors). The details of how the curriculum is covered in any individual training programme and training unit is the responsibility of the local faculty of education in consultation with the Federation of Royal Colleges of Physicians.

Coordination of the Curriculum at national and regional level is the joint responsibility of the Deaneries and the Federation of Royal Colleges of Physicians, with robust arrangements for quality assurance of training

This curriculum puts the emphasis on learning rather than teaching. Trainees are responsible for their own learning and the utilisation of opportunities for learning throughout their training. The workplace-based assessment process is also trainee led

7.2 Recording progress

On enrolling with JRCPTB trainees will be given access to the ePortfolio for Renal Medicine. The ePortfolio allows evidence to be built up to inform decisions on a trainee's progress and provides tools to support trainees' education and development.

The trainee's main responsibilities are to ensure the ePortfolio is kept up to date, arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their personal development plan, record their reflections on learning and record their progress through the curriculum.

The supervisor's main responsibilities are to use ePortfolio evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings. They are also expected to update the trainee's record of progress through the curriculum, write end-of-attachment appraisals and supervisor's reports.

8 Curriculum review and updating

The curriculum is led on behalf of the RCP JRCPTB by the Renal SAC. The Renal SAC will gather expert opinion from the Renal Association, Heads of Renal Medicine training and Deaneries. The review process of the curriculum will involve key stakeholders including trainees, trainers, patients, the public, the NHS and other healthcare organisations. It is anticipated that changes will develop over time and minor changes will be agreed with GMC on an annual basis.

Evaluation methods will include:

GMC trainee and trainer survey results
Information from College representatives, Programme Directors and Educational and Clinical Supervisors
Information from Deaneries, NHS and other healthcare organisations

9 Equality and diversity

The Royal Colleges of Physicians will comply, and ensure compliance, with the requirements of equality and diversity legislation, such as the:

- Race Relations (Amendment) Act 2000
- Disability Discrimination Act 1995
- Human Rights Act 1998
- Employment Equality (Age) Regulation 2006
- Special Educational Needs and Disabilities Act 2001
- Data Protection Acts 1984 and 1998

The Federation of the Royal Colleges of Physicians believes that equality of opportunity is fundamental to the many and varied ways in which individuals become involved with the Colleges, either as members of staff and Officers; as advisers from the medical profession; as members of the Colleges' professional bodies or as doctors in training and examination candidates. Accordingly, it warmly welcomes contributors and applicants from as diverse a population as possible, and actively seeks to recruit people to all its activities regardless of race, religion, ethnic origin, disability, age, gender or sexual orientation.

Deanery quality assurance will ensure that each training programme complies with the equality and diversity standards in postgraduate medical training as set by GMC.

Compliance with anti-discriminatory practice will be assured through:

- monitoring of recruitment processes;
- ensuring all College representatives and Programme Directors have attended appropriate training sessions prior to appointment or within 12 months of taking up post;
- Deaneries must ensure that educational supervisors have had equality and diversity training (at least as an e learning module) every 3 years
- Deaneries must ensure that any specialist participating in trainee interview/appointments committees or processes has had equality and diversity training (at least as an e module) every 3 years.
- ensuring trainees have an appropriate, confidential and supportive route to report examples of inappropriate behaviour of a discriminatory nature. Deaneries and Programme Directors must ensure that on appointment trainees are made aware of the route in which inappropriate or discriminatory behaviour can be reported and supplied with contact names and numbers.

Deaneries must also ensure contingency mechanisms are in place if trainees feel unhappy with the response or uncomfortable with the contact individual.

- monitoring of College Examinations;
- ensuring all assessments discriminate on objective and appropriate criteria and do not unfairly disadvantage trainees because of gender, ethnicity, sexual orientation or disability (other than that which would make it impossible to practise safely as a physician). All efforts shall be made to ensure the participation of people with a disability in training.

Appendix 1

Members of the Renal Curriculum Working Group:

Chair:	Dr Sue Carr Chair Renal Association Education & Training Committee Consultant Nephrologist/Hon Senior Lecturer, University Hospitals of Leicester
Nominees from the SAC:	Professor Simon Davies Secretary Consultant Nephrologist , Dept of Nephrology, North Staffordshire Hospital
	Dr Andrew Mooney Yorkshire Deanery Representative Consultant Nephrologist Renal Unit, St James' University Hospital, Leeds
	Dr Steve Riley Wales Deanery Representative Consultant Nephrologist Institute of Nephrology, University Hospital of Wales, Cardiff
Nominees from the Renal Association:	Professor Caroline Savage Academic Vice President Professor of Nephrology Renal Medicine, Renal Immunobiology, Division of Immunity and Infection, University of Birmingham
	Dr Jeremy Levy Specialty School lead Renal Association Education & Training Committee Consultant in Renal Medicine Imperial College Healthcare NHS Trust
Programme Directors/Chairs of STCs:	Dr Alison Brown North East Deanery Representative Consultant Nephrologist Nephrology Unit, Freeman Hospital, Newcastle upon Tyne
	Dr Pearl Pai Training Director Renal Association Education & Training Committee Consultant Nephrologist

	Renal Dept, Royal Liverpool University Hospital, Liverpool
	Dr Peter Topham Senior Lecturer/Hon Consultant Nephrologist, University of Leicester
Trainee Representatives:	Dr Madeleine Vernon Renal Speciality Registrar, Edinburgh
Lay Rep:	Mr Dennis Crane - NKF Advocacy Officer (Northern)
	Mrs Sue Cavendish, East Midlands Deanery
Management Rep:	Mrs Rebecca Brown Cardio-Respiratory General Manager (previously Renal Services and Urology General Manager), University Hospitals of Leicester NHS Trust

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Dr Mordi Muorah, Trainee, Paediatric Nephrology