

Paediatric Nephrology

Level 3

Paediatrics Sub-specialty Syllabus

Version 1

Approved by the GMC for implementation from 1st August 2018

This document outlines the syllabus to be used by doctors completing completing Level 3 Paediatric Nephrology training in the United Kingdom training in the United Kingdom (UK). It accompanies the RCPCH Progress curriculum and assessment strategy.

This is Version 1.0. As the document is updated, version numbers will be changed, and content changes noted in the table below.

Version number	Date issued	Summary of changes

Introduction

This syllabus supports the completion of the RCPCH Progress curriculum, and should be used in conjunction with the curriculum document.

The purpose of the curriculum is to train doctors to acquire a detailed knowledge and understanding of health and illness in babies, children and young people. The curriculum provides a framework for training, articulating the standard required to work at Consultant level, and at key progression points during their training, as well as encouraging the pursuit of excellence in all aspects of clinical and wider practice.

The curriculum comprises of Learning Outcomes which specify the standard that trainees must demonstrate as they progress through training and ultimately attain a Certificate of Completion of Training (CCT). The syllabi support the curriculum by providing further instructions and guidance as to how the Learning Outcomes can be achieved and demonstrated.

Using the Syllabus

Paediatric trainees are required to demonstrate achievement of generic and sub-specialty or General Paediatric Learning Outcomes throughout their training period.

For all level 1 and level 2 trainees, there are 11 generic paediatric Learning Outcomes for each level. At level 3, there are a further 11 generic paediatric Learning Outcomes for all trainees, and several additional Learning Outcomes in either General Paediatrics or the GRID sub-specialty the trainee has been appointed into.

This syllabus contains 5 interlinked elements, as outlined in figure 1 which illustrates how each element elaborates on the previous one.

Elements of the Syllabus

The **Introductory Statement** sets the scene for what makes a Paediatric Nephrologist.

The **Learning Outcomes** are stated at the beginning of each section. These are the outcomes which the trainee must demonstrate they have met to be awarded their Certificate of Completion of Training (CCT) in Paediatrics. Progress towards achievement of the Learning Outcomes is reviewed annually at the Annual Review of Competence Progression (ARCP).

Each Learning Outcome is mapped to the General Medical Council (GMC) Generic Professional Capabilities framework. Each trainee must achieve all the Generic Professional Capabilities to meet the minimum regulatory standards for satisfactory completion of training.

The **Key Capabilities** are mandatory capabilities which must be evidenced by the trainee, in their ePortfolio, to meet the Learning Outcome. Key Capabilities are therefore also mapped to the GMC Generic Professional Capabilities framework.

The **Illustrations** are examples of evidence and give the range of clinical contexts that the trainee may use to support their achievement of the Key Capabilities. These are intended to provide a prompt to the trainee and trainer as to how the overall outcomes might be achieved. They are not intended to be exhaustive, and excellent trainees may produce a broader portfolio or include evidence that demonstrates deeper learning. It is not expected that trainees provide ePortfolio evidence against every individual illustration (or a set quota); the aim of assessment is to provide evidence against every Key Capability.

The **Assessment Grid** indicates suggested assessment methods, which may be used to demonstrate the Key Capabilities. Trainees may use differing assessment methods to demonstrate each capability (as indicated in each Assessment Grid), but there must be evidence of the trainee having achieved all Key Capabilities.

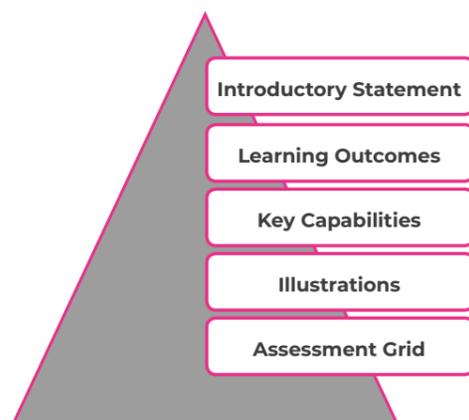


Figure 1: The 5 elements of the syllabus

Using the Syllabus with ePortfolio

Recording evidence in the ePortfolio to demonstrate progression against the learning outcomes and key capabilities can be done from any assessment or event in the ePortfolio.

At the end of any event or assessment, there is an opportunity to add tags, documents and comments. Expanding this by clicking “show more” will enable you to link your assessment to the curriculum items, where you will find the learning outcomes for each domain, key capabilities and example illustrations.

Trainees will therefore be able to track their progress in fulfilling the mandatory learning outcomes and key capabilities.



Paediatric Nephrology Introductory Statement

Introductory Statement

A Paediatric Nephrologist is a doctor who deals with the diagnosis, investigation and management of chronic and acute kidney disease, including the provision of dialysis and renal transplantation. Paediatric Nephrologists have a detailed knowledge of renal physiology, including fluid management and disturbances in electrolytes and acid-base balance. They are skilled in the management of acute kidney injury (AKI), which may be managed conservatively or with renal replacement therapy (RRT), including peritoneal dialysis (PD), haemodialysis (HD), and continuous venovenous haemodialysis (CVVHD) and continuous venovenous haemodiafiltration (CVVHF). They are also skilled in the management of chronic kidney disease (CKD), including the pre-dialysis phase, peritoneal dialysis, haemodialysis and transplantation.

Paediatric Nephrologists also develop expertise in the management of children and infants with congenital anomalies of the renal tract, nephrotic syndrome, glomerulonephritis, vasculitis, inherited and acquired forms of tubulopathy, urinary tract infection (UTI) and vesicoureteric reflux (VUR), renal stone disease, hypertension, inborn errors of metabolism, and inherited nephropathies. CKD is a life-long condition and Paediatric Nephrologists are frequently involved in the care of patients from birth all the way through to the successful transition into adult renal care.

Sub-specialty Learning Outcomes

Sub-specialty Learning Outcomes		GMC Generic Professional Capabilities
1.	Demonstrates extensive knowledge of renal physiology, including fluid management and disturbances in electrolytes and acid-base balance.	GPC 2, 3
2.	Manages the diagnosis, investigation and management of acute and chronic kidney disease, including the provision of renal replacement therapy and renal transplantation.	GPC 3, 6
3.	Demonstrates proficiency in all aspects of the management of children and infants requiring acute and long-term dialysis, including peritoneal dialysis, haemodialysis, continuous venovenous haemodialysis and continuous venovenous haemodiafiltration.	GPC 1, 3, 6
4.	Manages children and infants with congenital anomalies of the renal tract, nephrotic syndrome, glomerulonephritis, vasculitis, inherited and acquired forms of tubulopathy, UTI and vesicoureteric reflux, renal stone disease, hypertension, inborn errors of metabolism, and inherited nephropathies.	GPC 1, 3, 6
5.	Shows expertise in the transition of renal patients to adult care.	GPC 1, 3, 6

Sub-specialty Learning Outcome 1



Demonstrates extensive knowledge of renal physiology, including fluid management and disturbances in electrolytes and acid-base balance.	GPC 2, 3
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Key Capabilities

Assesses and manages fluid status.	GPC 3, 6
Assesses and manages derangements in electrolytes and acid-base balance.	GPC 3, 6

Illustrations

Renal physiology: disorders of fluid, electrolyte and acid-base regulation, including inherited tubulopathies and rarer metabolic disease.	
Demonstrates an understanding:	
1.	Of the pathophysiology of fluid balance, electrolyte and acid-base abnormalities.
2.	Of the clinical significance of fluid balance, electrolyte and acid-base abnormalities.
3.	Of the different causes and clinical presentations of acquired and inherited tubulopathies.
4.	Of the pathophysiology and genetics of rarer metabolic disorders leading to renal disease, including cystinosis, hyperoxaluria and methylmalonic acidaemia.
5.	That endocrine disorders can present with abnormalities of fluid status, deranged electrolytes, and acid-base disturbances.
6.	Of the natural history, treatment and prognosis of rarer metabolic disease with renal involvement.
Demonstrates the following skills:	
1.	Assesses, investigates and manages disorders of fluid, electrolyte and acid-base homeostasis.
2.	Assesses fluid status through clinical assessment and the use of adjunct parameters.
3.	Interprets the results of biochemical investigations in order to identify the cause of tubular dysfunction, and instigates appropriate treatment.
4.	Manages all aspects of care in patients with inherited tubulopathies, including children with underlying metabolic disease, in conjunction with other specialist paediatricians, surgeons, dietitians, biochemists and geneticists.

Sub-specialty Learning Outcome 2

Manages the diagnosis, investigation and management of acute and chronic kidney disease, including the provision of renal replacement therapy and renal transplantation.	GPC 3, 6
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Key Capabilities

Counsels children and families on all aspects of the management of acute and chronic kidney disease within the multidisciplinary team (MDT) setting.	GPC 3, 5, 7
Assesses and manages patients on dialysis and following kidney transplantation.	GPC 2, 3, 6

Illustrations

Acute Kidney Injury (AKI)	
Applies knowledge of:	
1.	The definition and causes of AKI.
2.	The investigations relevant to AKI, including the indications for renal biopsy.
3.	The epidemiology and public health aspects of verocytotoxin-producing Escherichia coli infection.
4.	The indications for renal replacement therapy in AKI, including continuous venovenous haemodialysis and continuous venovenous haemodiafiltration.
5.	The pathophysiology of AKI.
6.	The aetiology of haemolytic uraemic syndrome (HUS), including atypical HUS (aHUS).
Demonstrates the following skills:	
1.	Recognises patients at risk of AKI and takes appropriate steps to minimise the risk.
2.	Investigates and manages underlying cause of AKI, and is able to interpret the renal biopsy result.
3.	Assesses and manages fluid status, hypertension, electrolyte and acid-base disturbance in AKI.
4.	Instigates dialysis and chooses an appropriate dialysis modality in AKI.
5.	Counsels the patient and carer regarding the long-term outcome following an episode of AKI.
6.	Recognises, investigates and manages diarrhoea-associated (D+) HUS and diarrhoea-negative (D-) or atypical HUS, including by using biologics.
Chronic Kidney Disease (CKD)	
Applies knowledge of:	
1.	The classification of and causes of CKD.
2.	The basis and use of estimated glomerular filtration rate (eGFR) in CKD.
3.	The indications for renal replacement therapy in CKD.
4.	The pathophysiology and complications of anaemia secondary to CKD.
5.	The pathophysiology and complications of renal bone disease.
6.	The presentation, clinical course and prognosis of different causes of CKD in childhood.
Demonstrates the following skills:	
1.	Assesses and manages growth and nutrition in CKD, including the use of enteral feeding and growth hormone treatment.

2.	Identifies and treats potential reversible causes of CKD and slow progression of CKD.
3.	Instigates appropriate treatment to prevent and treat renal bone disease.
4.	Investigates and manages children with CKD.
5.	Manages anaemia secondary to CKD.
6.	Manages cardiovascular risk factors, including hypertension and hyperlipidaemia in CKD.
7.	Manages fluid balance, electrolyte and acid-base abnormalities in CKD.
8.	Staging CKD, monitors progression and instigates renal replacement therapy when required.
Complications of CKD: anaemia and renal bone disease	
Applies knowledge of:	
1.	The indications for use of erythropoiesis-stimulating agents (ESAs), the monitoring required and the potential complications.
2.	The indications for use of oral or parenteral iron therapy in anaemia of CKD, the monitoring required and the potential complications.
3.	The haematological parameters and potential compounding factors which are taken into account when diagnosing and managing anaemia in CKD.
4.	The pathophysiology of renal bone disease and potential complications.
5.	The principles surrounding treatment of renal bone disease, including dietary restrictions.
6.	The use of biochemical parameters in detecting and monitoring renal bone disease.
7.	The normal physiology of calcium, phosphate and bone metabolism.
8.	The pathophysiology of renal anaemia.
Demonstrates the following skills:	
1.	Diagnoses and manages renal bone disease, including the prescription of a restricted dietary phosphate intake, with support from renal dietitians.
2.	Diagnoses and treats renal anaemia.
3.	Prescribes and monitors the use of ESAs, and oral and parenteral iron therapy.
Transplantation	
Applies knowledge of:	
1.	The role of renal transplantation in the management of children with CKD.
2.	The principles of renal transplantation, and the medical, surgical, ethical and potential social contraindications.
3.	The different types of renal transplants, and the relative risks and benefits.

4.	The principles of blood group typing, HLA typing and cross-matching prior to renal transplantation.
5.	The principles of allocation of donor organs in the United Kingdom.
6.	The ethical and legal framework governing renal transplantation, including the Human Tissue Act.
7.	The potential acute and long-term complications and their management following a kidney transplant.
8.	The mode of action of immunosuppressive agents post-transplant, the monitoring required, and potential complications.
9.	The indications for radiological investigations, and their potential complications, following a kidney transplant.
10.	The role of renal biopsy in the diagnosis of kidney transplant dysfunction.
11.	The available management strategies for acute rejection.
12.	The factors in the early post-transplant stage that influence long-term graft function.
13.	The additional factors influencing long-term graft and patient survival following a kidney transplant.
14.	The increased risk of cardiovascular disease and malignancy post-transplant, and the available preventative strategies.
Demonstrates the following skills:	
1.	Adjusts immunosuppression in the long term according to kidney transplant function and other comorbidities.
2.	Assesses and investigates acute deterioration in renal transplant function.
3.	Assesses the suitability of children with CKD for kidney transplantation.
4.	Counsels the patient and carer on all aspects of transplantation, including pre-emptive transplantation, different types of deceased and living donors, the post-transplant course, complications, and side effects of treatment.
5.	Detects, investigates and, where able, treats recurrence of primary disease following kidney transplant.
6.	Manages all aspects of care in a patient with failing kidney transplant or chronic allograft nephropathy, including the preparation for dialysis and re-listing for a second transplant.
7.	Manages patients acutely following kidney transplant, particularly in relation to acute fluid management and the assessment of delayed graft function.
8.	Monitors and modifies immunosuppression following renal transplantation.

Sub-specialty Learning Outcome 3



Demonstrates proficiency in all aspects of the management of children and infants requiring acute and long-term dialysis, including peritoneal dialysis, haemodialysis, continuous venovenous haemodialysis and continuous venovenous haemodiafiltration.	GPC 1, 3, 6
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Key Capabilities

Safely prescribes haemodialysis and peritoneal dialysis.	GPC 6
Advises on the use of continuous venovenous haemodialysis.	GPC 2, 3, 6

Illustrations

Dialysis: haemodialysis, continuous venovenous haemodialysis, continuous venovenous haemodiafiltration and peritoneal dialysis	
Applies knowledge of:	
1.	The indications, contraindications and relative efficiencies of different dialysis modalities relative to each other.
2.	The principles of haemodialysis, including home haemodialysis.
3.	The principles of peritoneal dialysis.
4.	The principles of continuous venovenous haemodialysis and continuous venovenous haemodiafiltration.
5.	The choices of vascular access for haemodialysis, the relative merits, and the potential complications related to access.
6.	The surgical procedure for insertion of a peritoneal dialysis catheter, the associated risks, and the complications related to access.
7.	The methods available for the assessment of adequacy in haemodialysis.
8.	The methods available for the assessment of adequacy in peritoneal dialysis.
Demonstrates the following skills:	
1.	Counsels the patient and carer on the risks and benefits of different dialysis modalities.
2.	Plans, prescribes and adjusts haemodialysis, and monitors adequacy.
3.	Plans, prescribes and adjusts peritoneal dialysis, and monitors adequacy.
4.	Supports intensivists in the management of a patient requiring continuous venovenous haemodialysis or continuous venovenous haemodiafiltration in the intensive care setting.
5.	Manages patient with AKI requiring both dialysis and plasmapheresis, in conjunction with an apheresis team.
6.	Recognises and manages specific complications of haemodialysis, including those related to vascular access.
7.	Recognises and manages specific complications of peritoneal dialysis, including those related to the peritoneal dialysis catheter.

Sub-specialty Learning Outcome 4



Manages children and infants with congenital anomalies of the renal tract, nephrotic syndrome, glomerulonephritis, vasculitis, inherited and acquired forms of tubulopathy, UTI and vesicoureteric reflux, renal stone disease, hypertension, inborn errors of metabolism, and inherited nephropathies.	GPC 1, 3, 6
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Key Capabilities

Measures and assesses blood pressure in children and infants, including the interpretation of ambulatory blood pressure monitoring.	GPC 3, 5, 6
Establishes the indications for renal biopsy, the potential complications and their management, and is able to interpret the histopathological findings.	GPC 1, 3, 5, 6
Counsels families on urinary tract abnormalities diagnosed antenatally.	GPC 3, 5, 6
Interprets radiological imaging of the kidney and urinary tract to enhance management.	GPC 3, 5, 6

Illustrations

Urinary tract: disorders of micturition, UTI, obstructive uropathies and renal stone disease	
Applies knowledge of:	
1.	The development and anatomy of the urinary tract.
2.	The importance of genital abnormalities and their association with renal disease.
3.	The physiology of normal micturition and acquisition of bladder control.
4.	The causes of disturbed micturition.
5.	The pathophysiology of the neuropathic bladder.
6.	The role of urodynamics in the investigation of disturbed micturition.
7.	The epidemiology and microbiology of UTIs and the role of host defence mechanisms.
8.	The clinical signs and symptoms of UTI in different ages in children.
9.	The evidence base linking UTI, vesicoureteric reflux and reflux nephropathy to the progression to CKD.
10.	The causes of obstructive uropathy, including posterior urethral valves.
11.	Acute presentation of urinary tract obstruction, and the long-term consequences.

12.	The types of reconstructive procedures undertaken in children with bladder abnormalities and their relevance to future kidney transplantation.
13.	The causes and pathophysiology of renal stone formation, including association with renal tubular and inherited disorders.
14.	The clinical presentation of renal stone disease and associated complications.
15.	How to investigate renal stone disease and associated complications.
16.	The treatment available for renal stone disease, including dietary measures.

Demonstrates the following skills:	
1.	Counsels parents on abnormalities of kidney and urinary tract detected antenatally, in conjunction with colleagues in fetomaternal medicine.
2.	Assesses, investigates and manages children with kidney stone disease in conjunction with dietitians, radiologists, biochemists and urologists.
3.	Counsels the patient and carer in conjunction with a urologist with regards to the interventions available to manage urinary tract obstruction and complex bladder dysfunction, especially in relation to kidney transplantation.
4.	Interprets radiological investigations in children with a UTI or vesicoureteral reflux.
5.	Interprets urodynamic studies and instigates appropriate management.
6.	Investigates and manages children with recurrent and atypical UTIs, including those with vesicoureteric reflux and renal parenchymal defects.
7.	Investigates and manages complex disorders of micturition.
8.	Investigates and manages patients with urinary tract obstruction, including the management of fluid and electrolyte disturbance following relief of obstruction.

Glomerular disorders: haematuria, proteinuria and nephrotic syndrome, glomerulonephritis and vasculitides	
Applies knowledge of:	
1.	The pathophysiology and causes of microscopic and macroscopic haematuria.
2.	The pathophysiology and causes of proteinuria.
3.	The aetiology of nephrotic syndrome, including congenital nephrotic syndrome.
4.	The investigation of proteinuria (including renal biopsy) and the treatment options available.
5.	The investigation of nephrotic syndrome (including renal biopsy) and the treatment options available, including the potential side effects of treatment and the on-going surveillance required.
6.	The complications of nephrotic syndrome and their management.
7.	The association of haematuria and proteinuria to systemic disease.
8.	The causes of glomerulonephritis, including connective tissue disorders and vasculitis.

9.	The investigations required to identify the cause of glomerulonephritis or vasculitis, including the role of renal biopsy.
10.	The management strategies available for the treatment of glomerulonephritis and vasculitis including immunosuppression, biologics, cytotoxic drugs and plasmapheresis.
11.	The aetiology of inherited abnormalities in the glomerular basement membrane, including Alport's syndrome.
12.	Viral-mediated renal disease including HIV-associated nephropathy.
13.	The role of complement in acquired and inherited glomerular disease, including C3 nephropathy.
14.	The pathophysiology and presentation of thrombotic microangiopathies (TMA), including haemolytic uraemic syndrome.
15.	The potential treatment options for TMA and HUS and other complement-mediated renal diseases including the use of immunosuppression, plasmapheresis and biologics.
Demonstrates the following skills:	
1.	Formulates a differential diagnosis, investigates and manages a child with microscopic and macroscopic haematuria.
2.	Formulates a differential diagnosis, investigates and manages a child with proteinuria or nephrotic syndrome.
3.	Institutes appropriate treatment for a child with glomerulonephritis or vasculitis in conjunction with other specialities, for example rheumatology.
4.	Interprets histological findings on renal biopsy in a child with haematuria, proteinuria or nephrotic syndrome and instigates appropriate treatment.
5.	Manages the complications of nephrotic syndrome.
6.	Manages fluids, electrolytes and hypertension in children with glomerular disease.
7.	Provides supportive management for children with steroid-resistant nephrotic and congenital nephrotic syndrome.
8.	Recognises indications for renal biopsy in the investigation of haematuria, proteinuria and nephrotic syndrome.
Hypertension and renovascular disease	
Applies knowledge of:	
1.	How to define hypertension according to normal blood pressure data in children.
2.	The pathophysiology of primary and secondary hypertension.
3.	How to detect, investigate and treat hypertension.
4.	The importance of life-style measures to manage primary hypertension.
5.	The mechanism of action and potential side effects of antihypertensive agents.
6.	The long-term consequences of untreated hypertension in relation to kidney and other end-organ damage.

7.	The causes of renovascular hypertension.
8.	The methods to investigate and treat renovascular disease, and the potential risks of these investigations.
Demonstrates the following skills:	
1.	Assesses a patient with hypertension including the use of ambulatory blood pressure monitoring.
2.	Detects and manages complications following angiography or angioplasty.
3.	Initiates and monitors treatment for hypertension.
4.	Instigates the investigation and treatment of renovascular disease in conjunction with vascular surgeons and interventional radiologists.
5.	Provides long-term care to patients with renovascular disease, including the management of blood pressure and detection of recurrent disease.
Cystic kidney disease	
Applies knowledge of:	
1.	The different forms of inherited and sporadic cystic kidney disease including autosomal dominant polycystic kidney disease, autosomal recessive kidney disease, Hepatocyte Nuclear Factor-1beta (HNF-1beta)-associated renal disease and diabetes.
2.	The extra-renal manifestations, management and long-term outlook.
3.	The screening tools available for the detection of cystic kidney disease in parents, siblings and relatives.
4.	The available treatments for the different forms of cystic kidney disease.
Demonstrates the following skill:	
1.	Investigates and manages all aspects of care for children with cystic kidney disease, liaising with geneticists and hepatologists.
Tubulo-interstitial disease	
Applies knowledge of:	
1.	The pathophysiology of interstitial nephritis and tubulo-interstitial disease, their causes, and links with systemic disease.
2.	The investigations needed to ascertain the cause of interstitial disease.
3.	The natural history of tubulo-interstitial nephritis.
4.	The management of tubulo-interstitial nephritis.
Demonstrates the following skills:	
1.	Assesses and investigates a patient with tubulo-interstitial nephritis, including the use of laboratory tests and the interpretation of a renal biopsy.
2.	Instigates treatment of tubulo-interstitial nephritis.
3.	Monitors for extra-renal manifestations associated with tubulo-interstitial nephritis.

Renal biopsy	
Applies knowledge of:	
1.	The indications for native and transplant renal biopsies.
2.	The anatomy of the native kidney in relation to performing a biopsy.
3.	The contraindications to performing a biopsy.
4.	The potential complications of renal biopsy, and the relative frequency.
Demonstrates the following skills:	
1.	Organises necessary investigations to minimise risk from biopsy.
2.	Takes informed consent from the patient or carer for native and transplant renal biopsies.
3.	Detects and manages post-renal biopsy complications.
4.	Interprets renal biopsy findings in conjunction with a histopathologist.
5.	Discusses the results of renal biopsy, treatment options and prognosis with patient or carer.
<i>Being able to perform an ultrasound-guided renal biopsy with or without radiological assistance is optional.</i>	

Sub-specialty Learning Outcome 5

Shows expertise in the transition of renal patients to adult care.

GPC 1, 3, 6

Key Capabilities

Manages the transition of a renal patient to adult services.

GPC 1, 3, 5, 6

Illustrations

1. Addresses the complex transition pathways required for patients with rare inherited renal disease, including those with an underlying metabolic disorder.
2. Recognises the complexity of transitioning patients with CKD to adult care and the particular risks associated with non-concordance, for example, the transplant failing.

Assessment Grid

This table suggests assessment tools which may be used to assess the Key Capabilities for these Learning Outcomes. This is not an exhaustive list, and trainees are permitted to use other methods within the RCPCH Assessment Strategy to demonstrate achievement of the Learning Outcome, where they can demonstrate these are suitable.

Key Capabilities	Assessment / Supervised Learning Event suggestions									
	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)	Paediatric Case-based Discussion (ePaed Cbd)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	Paediatric Multi Source Feedback (ePaed MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Assesses and manages fluid status.	✓	✓								
Assesses and manages derangements in electrolytes and acid-base balance.	✓	✓								
Counsels children and families on all aspects of the management of acute and chronic kidney disease within the multidisciplinary team (MDT) setting.	✓	✓					✓	✓		
Assesses and manages patients on dialysis and following kidney transplantation.	✓	✓						✓		
Safely prescribes haemodialysis and peritoneal dialysis.	✓	✓			✓	✓				
Advises on the use of continuous venovenous haemodialysis.	✓	✓								
Measures and assesses blood pressure in children and infants, including the interpretation of ambulatory blood pressure monitoring.	✓	✓	✓							
Establishes the indications for renal biopsy, the potential complications and their management, and is able to interpret the histopathological findings.	✓	✓								
Counsels families on urinary tract abnormalities diagnosed antenatally.	✓	✓				✓	✓	✓		
Interprets radiological imaging of the kidney and urinary tract to enhance management.	✓	✓					✓			
Manages the transition of a renal patient to adult services.	✓	✓				✓	✓	✓		

