

## Entrustable Professional Activities (EPAs)

### List of EPAs for Renal Medicine

EPA Title	EPA Entrustment Level to be Attained by Exit
<a href="#">EPA 1: Providing Care for Patients with Acute Kidney Injury (AKI) and with Complex Fluid/Electrolyte and Acid/Base Disorders</a>	Level 4
<a href="#">EPA 2: Providing Care for Patients with Chronic Kidney Disease (CKD)</a>	Level 4
<a href="#">EPA 3: Providing Care for Patients with End Stage Renal Disease (ESRD)</a>	Level 4
<a href="#">EPA 4: Providing Care for Kidney Transplant Recipients and Donors</a>	Level 4
<a href="#">EPA 5: Performing Renal-Related Procedures</a>	Level 4 for the following procedures: <ul style="list-style-type: none"><li>• Native Renal biopsy</li><li>• Transplant Renal biopsy</li><li>• Non-tunnelled dialysis catheter insertions</li></ul>

### Entrustment Scale

Entrustment Level	Description
Level 1	Be present and observe, but no permission to enact EPA
Level 2	Practice EPA with direct (pro-active) supervision
Level 3	Practice EPA with indirect (re-active) supervision
Level 4	Unsupervised practice allowed (distant oversight)
Level 5	May provide supervision to junior learners

## Renal Medicine EPA 1

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Title	<b>Providing Care for Patients with Acute Kidney Injury (AKI) and with Complex Fluid/Electrolyte and Acid/Base Disorders</b>
Specification and limitations	<p>Specifications:</p> <ol style="list-style-type: none"> <li>1. Applying clinical, epidemiologic and environmental knowledge to the care of patients with acute electrolyte and kidney disorders</li> <li>2. Directing appropriate evaluation</li> <li>3. Initiating an effective treatment plan</li> <li>4. Initiating, supervising and managing all modalities of extra-corporeal therapies (including CRRT, plasma exchange)</li> <li>5. Identifying and applying evidence-based guidelines</li> <li>6. Anticipating and, when possible, mitigating chronic or long-term issues</li> <li>7. Communicating and coordinating with families and other members of the health care team</li> </ol>
	<p><b>Limitations:</b></p> <p>To consult before initiating the following procedures:</p> <ul style="list-style-type: none"> <li>• Extra-corporeal therapies other than CRRT and plasma exchange</li> </ul>
EPA Entrustment Level to be Attained by Exit	Level 4

**Renal Medicine EPA 2**  
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Title	<b>Providing Care for Patients with Chronic Kidney Disease (CKD)</b>
Specification and limitations	<p>Specifications:</p> <ol style="list-style-type: none"> <li>1. Applying important clinical, epidemiologic, and environmental knowledge to the care of patients with chronic electrolyte and kidney diseases</li> <li>2. Directing appropriate evaluation methods</li> <li>3. Initiating an effective treatment plan</li> <li>4. Recognizing the impact of chronic electrolyte and kidney disease on the physical, mental and emotional well-being of the patient in the context of the family unit, and engaging allied health professionals to address such issues</li> <li>5. Providing effective care of such patients through participation and/or direction of an effective inter-professional health care team</li> <li>6. Constructing and communicating appropriate follow-up plans and providing follow-up care as necessary</li> </ol>
	<p><b>Limitations:</b>  This EPA does not include:</p> <ul style="list-style-type: none"> <li>• Pregnancy in a patient with chronic kidney disease</li> </ul>
EPA Entrustment Level to be Attained by Exit	Level 4

### Renal Medicine EPA 3

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Title	<b>Providing Care for Patients with End Stage Renal Disease (ESRD)</b>
Specification and limitations	<p>This EPA includes providing care for patients with End Stage Renal Disease (ESRD) on Renal Replacement Therapy (RRT) and non-dialysis therapy (supportive care).</p> <p>Specifications:</p> <ol style="list-style-type: none"> <li>1. Applying clinical, epidemiologic, environmental, and regulatory knowledge in the care of patients with ESRD on dialysis (Haemodialysis, Peritoneal Dialysis)</li> <li>2. Identifying and providing appropriate management plans including selection of dialysis modality for patients, management of patients before undergoing chronic dialysis, management of all perioperative and access-related issues, and implementation and supervision of dialysis treatments and other extracorporeal filtration and dialysis-related therapies (all renal replacement therapies)</li> <li>3. Applying clinical, epidemiologic, and regulatory knowledge in the operations of a Haemodialysis centre, including satisfactory water treatment and quality, infection control and appropriate dialyzer and dialysis prescription</li> <li>4. Recognizing the impact of electrolyte disorders, and end stage renal disease on the physical, mental and emotional well-being of the patient in the context of the family unit and engaging Allied Health Professionals (AHP) to address such issues</li> <li>5. Identifying patients suitable for living or deceased donor kidney transplantation and providing the necessary management plans to ensure suitability for transplantation</li> <li>6. Identifying and providing holistic care of ESRD patients on non-dialysis therapy and addressing patients' and their families' physical, psychosocial, religious and cultural needs</li> <li>7. Demonstrating effective communication and principled professional behaviour with patients, families and the inter-professional health care team including surgeons, interventional radiologists, and allied health professionals. These include appropriate follow-up plans and providing follow-up care when necessary</li> <li>8. Care coordination for stage 5 CKD patients with various stakeholders including regulatory bodies, community peritoneal dialysis support, dialysis providers (including private dialysis centres and voluntary welfare organizations), National transplant centres and the National Organ Transplant Unit (NOTU). These include appropriate follow-up plans and providing follow-up care when necessary</li> <li>9. Prioritization of initiation of renal replacement therapy or kidney transplant based on level and changes of renal function</li> <li>10. Pre-initiation evaluation and counselling of patients on dialysis modalities, transplant, outcomes and conservative care</li> <li>11. Evaluation and developing appropriate management plans of renal replacement therapy</li> <li>12. Evaluation and developing appropriate management plans of kidney conservative care</li> <li>13. Evaluation of dialysis access related issues and subsequent management</li> </ol>

	<p><b>Limitations:</b></p> <p>This EPA does not include the administrative work involved in the setting up, monitoring and daily running of the haemodialysis centre.</p> <p>This EPA does not include:</p> <ul style="list-style-type: none"> <li>○ Pregnant women on dialysis</li> <li>○ Changing of dialysis modality in specific situations including withdrawal of dialysis (e.g. patient with dementia requiring psychiatric assessment)</li> </ul>
<p>EPA Entrustment Level to be Attained by Exit</p>	<p>Level 4</p>

**Renal Medicine EPA 4**

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Title	<b>Providing Care for Kidney Transplant Recipients and Donors</b>
Specification and limitations	<p><b>Specifications:</b></p> <ol style="list-style-type: none"> <li>1. Applying clinical, epidemiological, and regulatory knowledge in the care of both the donor and the recipient of kidney transplantation; including interactions with regulatory bodies, organ procurement organizations, transplant teams and national organizations</li> <li>2. Evaluation of patients with or approaching ESRD and identify suitable candidates for transplantation. Consider the impact of the underlying renal diagnosis, comorbidities, and psychosocial, economical, issues of the patient in regards to kidney transplantation</li> <li>3. Identifying and administering appropriate management plans for patients with Stage 5 CKD considering renal transplant. This includes addressing care issues for patients undergoing kidney transplantation, identification and management of perioperative issues, and implementation and supervision of immunosuppression and adjunctive therapies</li> <li>4. Management of both deceased as well as living donor kidney transplant – including assessment of both donor and recipient for suitability, optimising both donor and recipient for optimal outcome as well as applying the latest knowledge to ensure the best outcome following kidney transplantation surgery in the pre-operative, peri-operative and post-operative periods</li> <li>5. Long term monitoring and management of patients post-transplantation and donation, including but not limited to, renal function, recurrent glomerulonephritis, complications associated with kidney transplant, as well as bio-psycho-social aspect of patients following kidney transplant. Recognising the importance of donor safety, implications of donor nephrectomy and need for long term follow-up</li> <li>6. Recognising and initiating appropriate management for rejection</li> </ol> <p><b>Limitations:</b></p> <p>This EPA does not include:  Management of acute rejection that require the use of biologics and extra-corporeal support</p> <p>Management of pregnancy in kidney transplant recipient</p>
EPA Entrustment Level to be Attained by Exit	Level 4

**Renal Medicine EPA 5**

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Title	<b>Performing Renal-Related Procedures</b>
Specification and limitations	<p><b>Specifications:</b></p> <ol style="list-style-type: none"> <li>1. Knowing the indications for kidney biopsies and for establishing dialysis access for renal replacement therapy, as well as the equipment required to perform these procedures</li> <li>2. Obtaining informed consent for renal-related procedures after providing readily understandable explanations of risks, benefits, alternatives, and potential complications associated with each procedure</li> <li>3. Developing, through deliberate practice, the skills necessary to perform renal-related procedures, including native and transplant kidney biopsy, and non-tunnelled HD catheter insertion</li> <li>4. Monitoring the status of patients during, and after renal-related procedures, including timely treatment of potential complications associated with each procedure</li> <li>5. Providing appropriate and timely follow-up care as well as short-term and long-term post-procedure management to ensure patient safety after renal-related procedures</li> <li>6. Perform and interpret ultrasound findings for the purposes of renal-related procedures, and to recognize abnormal findings and assess feasibility of proceeding with procedure</li> <li>7. Providing effective care of such patients through participation and/or direction of an effective inter-professional health care team</li> <li>8. Constructing and communicating appropriate follow-up plans and providing follow-up care when necessary</li> </ol> <p><b>Limitations:</b></p> <p>This EPA does not include:</p> <ul style="list-style-type: none"> <li>• Kidney biopsy in pregnant women</li> <li>• Kidney biopsy in single native kidney or congenital abnormality</li> <li>• Insertion of tunnelled dialysis catheters and peritoneal dialysis catheters</li> <li>• Arteriovenous fistula/graft angiogram and angioplasty</li> </ul>
EPA Entrustment Level to be Attained by Exit	<p>Level 4 for the following procedures:</p> <ul style="list-style-type: none"> <li>• Native Renal biopsy</li> <li>• Transplant Renal biopsy</li> <li>• Non-tunnelled dialysis catheter insertions</li> </ul>