Mapping of Nephrology Curricular Competencies with Assessment Tools



This outline maps curricular competencies\objectives with the assessment tools and potential test type. Tests will emphasize certain parts of the outline, and no single test will include questions on all aspects. Questions may include content that is not included in this outline.

| | | | | | | | | Assessme | ent Method | | | | | | | | | |
|----------------------|----------------------|------|-------|--|--------|--|----------------------------|--|--------------------------|-------------------------|--|-------|---|----|---|--|---|--|
| Construct | Domain | Year | Code | Performance indicator (Curriculum) | Page # | Learning Domain (1:Cognitive, 2:Skills, 3:Attitude) | MCQ - Part I Written | MCQ - Final Written | OSCE - Final Clinical | SOE - Final Clinical | | | | | | | | |
| A. Medical Expert | | F1 | A1.1 | The pharmacology of commonly used medications and their kinetic and dosage alteration with HD. | 9,10 | 1 | * | * | | * | | | | | | | | |
| | A1. Basic science | | A1.2 | Understanding dialysis water treatment, delivery systems, and dialyzer reuse. | 9 | 1 | * | * | | * | | | | | | | | |
| | | | A1.3 | a) Urea Kinetic Modeling in HD: Principles and Clinical Application | 8 | 2 | * | * | | * | | | | | | | | |
| | | | A1.4 | Develop competency in immunologic principles of types and mechanisms of renal allograft rejection. | 11 | 1 | | * | | * | | | | | | | | |
| | | | A1.5 | Understanding principles of organ harvesting, preservation, and sharing. | 11 | 1 | | * | | * | | | | | | | | |
| | | | A1.6 | Apply knowledge of the clinical, socio-behavioral, and fundamental biomedical sciences relevant to nephrology. | 13 | 1 | | * | | * | | | | | | | | |
| | | | A1.7 | Apply knowledge of The anatomy and histology of the kidney, including the structure and function of the glomerular filtration barrier. | 13 | 1 | | * | | * | | | | | | | | |
| | | F2 | F2 | F2 | | | A1.8 | Demonstrate effective use of all CanMEDS competencies relevant to nephrology. | 13 | 1,2,3 | | * | * | * | | | | |
| | | | | | A1.9 | Apply knowledge of The physiology and pathophysiology of: - Renal blood flow and glomerular filtration Regulation of acid-base, electrolyte, and water homeostasis Mineral metabolism and its alteration in renal disease, metabolic bone disease, and nephrolithiasis Hypertension. | 13-14 | 1 | | * | | * | | | | | | |
| | | | | | | | A1.10 | Apply knowledge of Clinical pharmacology as it pertains to: - Drug prescribing in renal disease Transplantation, especially with regards to immunosuppression. | 14 | 1 | | * | | * | | | | |
| | | | | | A1.11 | Apply knowledge of Toxicology as it relates to the use of dialysis therapies for poisonings. | 14 | 1 | | * | | * | | | | | | |
| | | | A1.12 | Apply knowledge of Immunology as it pertains to mechanisms of renal injury (including but not limited to glomerulonephritis, vasculitis, tubulointerstitial disease, and renal transplant rejection) and diagnostic testing relevant to renal disease. | 14 | 1 | | * | | * | | | | | | | | |
| | | | | | | | | | | | | A1.13 | Apply knowledge of Microbiology as it pertains to infections of the renal system and infectious complications of renal transplantation. | 14 | 1 | | * | |
| | | | A1.14 | Apply knowledge of Growth and development of the kidney in the normal and disordered state, including but not limited to vesicoureteral reflux, cystic diseases of the kidney, and renal changes with ageing. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.15 | Apply knowledge of Mechanisms of fluid delivery, machine mechanics, and membrane physiology as they relate to all dialysis modalities. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.16 | Apply knowledge of Pathology of disease in the native and transplanted kidney, including but not limited to glomerulonephritis, vasculitis, and systemic disease such as diabetes and hypertension. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.17 | Apply knowledge of Epidemiology of acute renal failure and chronic kidney diseases, including those conditions commonly causing end-stage renal failure, such as diabetes and hypertension. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.18 | Apply knowledge of Principles of genetics as they relate to the inheritance and transmission of diseases that affect the kidney. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.19 | Apply knowledge of Psychology of chronic illness such as chronic kidney disease. | 14 | 1 | | * | | * | | | | | | | | |
| | | | A1.20 | Apply knowledge of The effects of systemic diseases on the kidney as well as the effect of disordered kidney function on systemic health. | 14 | 1 | | * | | * | | | | | | | | |

| A2. Assessment & Diagnosis | | A2.1 | The trainee is expected to develop competency in demonstrating principles and practice of HD including the establishment of vascular access and the advantages/disadvantages related to each type. | 8 | 1,2 | * | * | * | * |
|----------------------------------|----|--------|--|-------|-----|---|---|---|---|
| | | A2.2 | Placement of temporary dialysis catheters, when necessary, for HD patients. | 8 | 2 | | | * | * |
| | | A2.3 | the trainee is expected to develop competency in demonstrating the technology of HD related to HD machines and dialyzers. | 8 | 1,2 | * | * | * | * |
| | | A2.4 | Assessment of HD adequacy including the use of urea kinetic modeling. | 8 | 1 | * | * | | * |
| | | A2.5 | b) HD Access: Choice, Initiation, Monitoring. HD accesses include temporary lines and permanent accesses (arteriovenous fistula, arteriovenous graft, and tunneled vascular HD catheters) g) Dialyzer Reactions Presentation | 8 | 1 | * | * | | * |
| | F1 | A2.6 | Evaluation of medical complications in patients during and between dialyses and other extra-corporeal therapies, and an understanding of their pathogenesis and prevention. | 8 | 1 | * | * | | * |
| | | A2.7 | Attend the PD unit for assessment and management of cases with PD-related complications, including PD catheter exit site infection, peritonitis, and catheter dysfunction. | 9 | 1,2 | * | * | * | * |
| | | A2.8 | Assessment of PD adequacy including the use of urea kinetic modeling and weekly creatinine clearance. | 9 | 1 | * | * | | * |
| | | A2.9 | Interpretation of peritoneal equilibration testing and its relevance to PD | 9 | 1 | * | * | | * |
| | | A2.10 | Demonstrating the technology of PD including the use of PD cyclers. | 9 | 2 | | | * | * |
| | | 7.2.10 | Demonstrating principles and practice of PD including the establishment of | 9 | | | | | |
| | | A2.11 | peritoneal access, principles of dialysis catheters, and the choice of appropriate PD catheters. | 9 | 1,2 | * | * | * | * |
| | | A2.12 | Addressing the nutritional status and requirements of HD patients. | 9\10 | 1 | * | * | | * |
| | F2 | A2.13 | Selection, evaluation, and preparation of transplant recipients and donors. | 10 | 1 | | | | |
| | | A2.14 | a) Pretransplant Donor Workup b) Pretransplant Recipient Workup c) Transplantation Immunobiology and Immunosuppressive Medications d) Desensitization and Transplantation Across Immunologic Barriers e) Acute Rejection f) Chronic Allograft Dysfunction g) Post-Transplant Infections Including BK virus and Post-Transplant Lymphoproliferative Disorders (PTLD) h) Post-Transplant Complications: Medical and Surgical | 10 | 1 | | * | | * |
| | | A2.15 | Understanding major causes of post-transplant morbidity and mortality. | 11 | 1 | | * | | * |
| | | A2.16 | Although not mandatory, trainees also have the opportunity to perform or learn how to perform transplant kidney biopsies during this rotation. | 11 | 1,2 | | * | * | * |
| | | A2.17 | Diagnosis of all forms of rejection. | 11 | 1 | | * | | * |
| | | A2.18 | Identify and explore issues to be addressed in a patient encounter effectively, including the patient's context and preferences. | 14 | 1 | | * | | * |
| | | A2.19 | Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management. | 14 | 2 | | | * | |
| | | A2.20 | Select medically appropriate investigative methods in a resource-effective and ethical manner. | 14 | 1 | | * | | * |
| | | A2.21 | Interpret the results of the following investigations in the context of the patient who presents with manifestations of renal disease. -Measures of renal function. - Serology. - Urine microscopy. - Other urine tests, including but not limited to electrolytes. - Blood pressure data, including automated and ambulatory blood pressure monitoring. - Renal imaging. - Renal histology. | 14-15 | 1 | | | | |
| | | A2.22 | Demonstrate effective clinical problem-solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses of the following presentations and their associated complications as appropriate in adult or pediatric nephrology. - Acute kidney injury. - Chronic kidney disease of all stages including transplantation. - Proteinuria. - Hematuria. - Nephrolithiasis. - Hypertension. - Genetic renal disorders (cystic, metabolic, tubular, nephritis). - Pyuria. - Disorders of fluid, electrolyte, and acid-base. | 15 | 1 | | | | |
| | | A2.23 | Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to nephrology. - Urine microscopy. - Insertion of central venous access. -Prescription, monitoring and adjustment of dialysis for renal replacement as well as in the treatment of poisonings and metabolic disorders. | 15 | 1 | | | | |

| | | | A2.24 | For the procedures not necessarily performed by nephrologists, describe the risks and benefits and make appropriate recommendations. Renal biopsy. Obtaining and maintaining access for dialysis (central venous catheter, arterial venous fistula, arterial venous graft, and PD catheter). Plasmapheresis. Renal artery revascularization. Renal transplantation surgery. Living kidney donation (adult nephrology only). Renal replacement therapy in critically ill patients. | 15-16 | 1 | | | | |
|--|-----------------------|----|-------|--|-------|-------|---|---|---|---|
| | A3. Manageme nt | | A3.1 | Gain exposure to urea kinetic modeling, dialysis prescription, transonics for evaluation of access, chronic kidney disease – mineral and bone disorder (CKD-MBD), and anemia management. | 8 | 1 | * | * | | * |
| | | | A3.2 | Discuss management of difficult HD vascular access. | 8 | 1 | * | * | | * |
| | | | A3.3 | b) HD Access: Management of Complications. HD accesses include temporary lines and permanent accesses (arteriovenous fistula, arteriovenous graft, and tunneled vascular HD catheters) c) Management of Hypotension/Hypertension in the HD Patient d) Management of Anemia in the HD Patient e) Management of Calcium/Phosphate/PTH Disorders in the HD Patient f) Appropriate Management of Line Sepsis Exploring Controversies g) Dialyzer Reactions Management h) Water Treatment in the Dialysis Unit | 8 | 1 | * | * | | * |
| | | F. | A3.4 | The trainee is expected to develop competency in demonstrating all seven CanMEDS core competencies while learning the basic skills required for management of chronic HD patients. | 8 | 1,2,3 | * | * | * | * |
| | | F1 | A3.5 | Management of medical complications in patients during and between dialyses and other extra-corporeal therapies | 9 | 1 | * | * | | * |
| | | | A3.6 | Although not mandatory, trainees also have the opportunity to learn how to place tunneled HD catheters during this rotation. | 9 | 1,2 | * | * | * | * |
| | | | A3.7 | Management of the complications of PD including peritonitis and its treatment, exit site and tunnel infections and their management, hernias, plural effusions and other less common complications and their management. | 9 | 1 | * | * | | * |
| | | | A3.8 | Understanding end-of-life care and pain management in the care of patients undergoing chronic dialysis. | 10 | 1 | * | * | | * |
| | | | A3.9 | Understanding the choice of immunosuppressive medications and protocols. | 10 | 1 | * | * | | * |
| | | | A3.10 | Although not mandatory, trainees also have the opportunity to learn how to percutaneously insert PD catheters during this rotation. | 10 | 1,2 | * | * | * | * |
| | | | A3.11 | Management of all forms of rejection. | 11 | 1 | | * | | * |
| | | | A3.12 | Immediate postoperative management of transplant recipients. | 11 | 1 | | * | | * |
| | | | A3.13 | Long-term follow-up and management of transplant recipients in the ambulatory setting including economic and psychosocial issues. | 11 | 1 | | * | | * |
| | | | A3.14 | Approach to management of allograft dysfunction including delayed graft function and nonrejection causes. | 11 | 1 | | * | | * |
| | | | A3.15 | Demonstrate effective clinical problem-solving and judgment to address patient problems, including interpreting available data and integrating information to generate management plans of the following presentations and their associated complications as appropriate in adult or pediatric nephrology. - Acute kidney injury. - Chronic kidney disease of all stages including transplantation. - Proteinuria. - Hematuria. - Nephrolithiasis. - Hypertension. - Genetic renal disorders (cystic, metabolic, tubular, nephritis). - Pyuria. - Disorders of fluid, electrolyte, and acid-base. | 15 | 1 | | * | | * |
| | | | A3.16 | Ensure patients receive appropriate end-of-life care. | 15 | 3 | | | * | |
| | | | A3.17 | Implement a management plan in collaboration with the patient and their family. | 15 | 1,3 | | * | * | * |
| | | F2 | A3.18 | Demonstrate appropriate and timely application of therapeutic interventions relevant to nephrology. blood pressure, minimization of proteinuria, and prevention of contrast nephrotoxicity. - Immunosuppression in patients with renal disease and management of its complications. - Plasmapheresis in patients with renal disease. - Hemodialysis (HD). - Peritoneal dialysis (PD). - Renal transplantation. - Strategies for management of complications of kidney disease, including but not limited to bone disease, anemia, growth delay, infection, and malnutrition. | 15 | 1 | | * | * | * |
| | | | A3.19 | For the procedures not necessarily performed by nephrologists, describe the risks and benefits and make appropriate recommendations. Renal biopsy. Obtaining and maintaining access for dialysis (central venous catheter, arterial venous fistula, arterial venous graft, and PD catheter). Plasmapheresis. Renal artery revascularization. Renal transplantation surgery. Living kidney donation (adult nephrology only). Renal replacement therapy in critically ill patients. | 15-16 | 1 | | * | | * |
| | | | A3.20 | Ensure adequate follow-up is arranged for procedures performed. | 16 | 1,3 | | * | * | * |

| Considerable and provided and control y accordancy in proceedings of the control | | | | A3.21 | Arrange appropriate follow-up care services for the patient and their family. | 16 | 1,3 | * | * | * |
|--|-----------------|------------------------|----|-------|--|----|-----|---|---|---|
| Sourcement of secondary or writing all Direct professional and a professional and professional and a professional and a professional and professional and a professio | | Promotion & Illness | F2 | A4.1 | interventions relevant to nephrology. blood pressure, minimization of proteinuria, and prevention of contrast nephrotoxicity. - Immunosuppression in patients with renal disease and management of its complications. - Plasmapheresis in patients with renal disease. - Hemodialysis (HD). - Peritoneal dialysis (PD). - Renal transplantation. - Strategies for management of complications of kidney disease, including but not limited to bone disease, anemia, growth delay, infection, and | 15 | 1 | * | | * |
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| Develop proport, trust, and ethical therapeatic relational posentis patients. In amilies, and respectives Recognite that being a good communicator is a core cinicus still for good physicians, and there effective physician subfaction, additions, and improved clinical statistical physicians subface the effective physician subface consultations on of order patient subface the physicians subface consultations of the statistical physicians subface the effective physician subface consultations and their families and canadicative physicians subface consultations and their families and canadicative physicians subface consultations and their families and canadicative physicians are comparable. Deliver information to patients, families, caregivers, colleagues, and other professionals in a compassionate manner and in such a very that it is good and the professionals in a compassionate manner and in such a very that it is good and the professionals in consultation of the professionals in consultation and professionals in clinical professionals in clinical manner. But physicians, and are consultational and canadicative and professionals in clinical manner. But physicians, and are consultational and canadicative physicians and consultation and canadicative physicians. But physicians, and are consultational and canadicative physicians and canadicative patients. But physicians, and are consultational and are consultative patients. But physicians, and are consultational and are consultated patients. But physicians, and are consultational and are consultated patients. But physicians, and are consultational and perspectives of the public consultation and consultational and perspectives of the public consultation and perspectives of the public consultations and perspectives of patients and families, congenies, colleagues, and other professionals. But physicians, and it investigate and consultation and perspectives of posterionals. But physicians, and invesses of consultations are patients to be public consultations and | | | | B5 | health | 16 | 2,3 | | * | |
| physiciss, and that effective physician patient communication can lotter patients statistically physician asidatach, adherence, and improved dirical outcomes. Expeller positive therappeatic relationships with patients and their families carejives that are characterized by understanding, trival, respect, honesty, and empathy. Colleter information to patients, families, carejivers, colleagues, and other professionism is an opposition of the patients of the p | | | | В6 | Develop rapport, trust, and ethical therapeutic relationships with patients, | 16 | 2,3 | | * | |
| Standard protein therapeutic relationships with patients and their families and caregives that are characterised by understanding fusis, respect, homesty, and other professionals in a compassionate meaner and in such as way that it is understandable, and enoughty. Deliver information to patients, families, caregivers, colleagues, and other professionals in a compassionate meaner and in such as way that it is understandable, and enoughes discussion and participation in decision-rushing. Program patients, families, and relevant health professionals in shared decision-making or develop a plan of cire. Procurage discussion, questions, and interaction in the encounter. Plan Address challenging communication issues effectively, such as: - Televiering based news. Prosent verbal reports of clinical encounters and plans. Prosent verbal reports of clinical encounters in challenge patients. Prosent verbal reports of clinical encounters and procedures & for the properties of the procedures & for the properties and plans and performed and counters. Prosent encounters and disserting the procedures performed and procedures & for the procedure in formation relating to procedures performed and procedures before and procedures an | | | | В7 | Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence, and improved clinical | 16 | 1 | * | | * |
| independent of the compassionate manner and in such a way that it is understanding, and recoverage discussion and participation in decision. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounter. Bit incourage discussion, questions, and interaction in the encounters and plans. Bit incourage discussion, questions, and accurate. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate informed consents in obtained for procedures a. Bit insure appropriate information relating to procedures performed and their nutromes. Bit insure appropriate information relating to procedures performed a. Bit insure appropriate information relating to procedures a. Bit insure appropriate information relating to procedures a. Bit insure appropriate information on the procedures and their professionals. Bit insure appropriate insure and description of the professionals. Bit insure appropriate insuration and perspectives of a patients and animals, acceptives, colleagues, and other professionals. Bit insure appropriate insuration information interaction because and about a patient standard and animals, are appropriate appropriate animals and animals and animals. Bit insure appropriate insurat | | | | B8 | Establish positive therapeutic relationships with patients and their families and caregivers that are characterized by understanding, trust, respect, honesty, | 16 | 3 | | * | |
| decisionmaking to develop a plan of care. 20 decisionmaking to develop a plan of care. 21 decisionmaking to develop a plan of care. 22 decisionmaking to develop a plan of care. 23 defress challenging communication issues effectively, such as: - Delivering bad news. 24 defress challenging communication issues effectively, such as: - Delivering bad news. 25 defress of plant and experimental plans. 26 defress of plant plants and plans. 27 desired plants are decision and plans. 28 desired plants are decision and plans. 29 desired plants are decision and accurate. 20 desired plants are decision and accurate. 20 desired plants are decision and accurate. 20 desired provided provided provided plants are decision and accurate. 20 desired provided plants are decision and accurate. 20 desired provided plants are decision and accurate. 21 desired provided plants are decision and accurate. 22 desired plants are decision and desemble and accurate. 23 decision and desemble and accurate. 24 desired provided plants are decision and desemble and accurate. 25 desired plants are decision and desemble and accurate. 26 desired provided plants are decision and desemble and accurate are decision. 27 desired plants are decision and accurate are decision. 28 desired plants and families, caregivers, coleagues, and other professionals. 28 desemble and accurate are decision and other professionals. 29 desemble and accurate are decision and other professionals. 29 desemble and accurate are decision and other professionals. 20 defently and expore problems to be addressed from a patient encounter decicion and decision and plants and accurate, and appropriate records of clinical encounters and plants. 20 defently and expore problems to be addressed from a patient encounter are decision and plants. 20 defently and expore problems to be addressed from a patient encounter and accurate, and appropriate records of clinical encounters and decision and plants. 21 decision and expore problems to be addressed from a patien | | | | В9 | professionals in a compassionate manner and in such a way that it is understandable, and encourages discussion and participation in decision- | 16 | 2,3 | | * | |
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| - Delivering bad news. 17 2 | | | | B11 | Encourage discussion, questions, and interaction in the encounter. | 17 | 3 | | * | |
| Bit Prepare a comprehensive medical report for transplant candidate patients. Bit Prepare a comprehensive medical report for transplant candidate patients. Bit Elicit a history that is relevant, concise, and accurate. Bit Elicit a history that is relevant, concise, and accurate. Bit Decument and disseminate information relating to procedures & therapies. Bit Decument and disseminate information relating to procedures performed and their outcomes. Bit Respect patient confidentiality, privacy, and autonomy. Bit Respect patient confidentiality, privacy, and autonomy. Bit Seaware of and responsive to nonverbal cues. Bit Facilitate a structured clinical encounter effectively. Bit Facilitate a structured clinical encounter effectively. Including the patient's context, responses, concerns, and a patient encounter effectively, including the patient's context, responses, concerns, and a patient encounter effectively, including the patient's context, responses, concerns, and a preferences. Beaper cliversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: - Obtaining informed consent. Bit Address challenging communication issues effectively, such as: - Obtaining informed consent. Bit Address challenging communication issues effectively, such as: - Ob | | | | B12 | | 17 | 2,3 | | * | |
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| 8. Communicator 8.16 8.16 8.16 8.16 8.16 8.16 8.16 8.1 | | | | B14 | Prepare a comprehensive medical report for transplant candidate patients. | 10 | 2 | | * | |
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| Big Listen effectively. Big Be aware of and responsive to nonverbal cues. Big Be aware of and responsive to nonverbal cues. Big Facilitate a structured clinical encounter effectively. Big Accurately elicit and synthesize relevant information and perspectives of patients and families, caregivers, colleagues, and other professionals Big Gather information about a disease and about a patient's beliefs, concerns, expectations, and illness experience. Big Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Big Present medical information effectively to the public or media about a medical issue. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. Big Beg level of functioning, gender, religion, and cultural beliefs on decisionmaking. Address challenging communication issues effectively, such as: Obtaining informed consent. Big Address challenging communication issues effectively, such as: Obtaining informed consent. Addressing anger, confusion, and misunderstanding. Initiating and withdrawing dialysis. Appropriateness and choice of renal replacement modality. Big Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | B17 | | 16 | 2 | | * | |
| Bao Be aware of and responsive to nonverbal cues. Bai Facilitate a structured clinical encounter effectively. Baccurately elicit and synthesize relevant information and perspectives of patients and families, caregivers, colleagues, and other professionals Baccurately elicit and synthesize relevant information and perspectives of patients and families, caregivers, colleagues, and other professionals Baccurately elicit and synthesize relevant information from other sources, such as a patient's beliefs, concerns, expectations, and illness experience. Back even ut and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. Baccurately elicit and synthesize relevant information from other sources, such as a patient's beliefs, concerns, and a patient's beliefs, concerns, and family and a patient's beliefs on decision family and a patient's family, and a patient's family, and a patient's family, a | | | | | | | | | * | |
| B21 Facilitate a structured clinical encounter effectively. B22 Accurately elicit and synthesize relevant information and perspectives of patients and families, caregivers, colleagues, and other professionals B33 Gather information about a disease and about a patient's beliefs, concerns, expectations, and iliness experience. B24 Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. B25 Present medical information effectively to the public or media about a medical issue. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. B26 Respect diversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: - Obtaining informed consent. B27 Addressing anger, confusion, and misunderstanding. - Initiating and withdrawing dialysis. - Appropriateness and choice of renal replacement modality. B29 Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | | | | | | | |
| Accurately elicit and synthesize relevant information and perspectives of patients and families, caregivers, colleagues, and other professionals B33 Gather information about a disease and about a patient's beliefs, concerns, expectations, and illness experience. B24 Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. B25 Present medical information effectively to the public or media about a medical issue. B26 Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. B27 Respect diversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: Obtaining informed consent. Addressing anger, confusion, and misunderstanding. Initiating and withdrawing dialysis. Appropriateness and choice of renal replacement modality. B29 Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | | · | | | | * | |
| expectations, and illness experience. B24 Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals. B25 Present medical information effectively to the public or media about a medical issue. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. B26 Respect diversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: Obtaining informed consent. Addressing anger, confusion, and misunderstanding. Initiating and withdrawing dialysis. Appropriateness and choice of renal replacement modality. B27 Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | | Accurately elicit and synthesize relevant information and perspectives of | | | | * | |
| patient's family, caregivers, and other professionals. Present medical information effectively to the public or media about a medical issue. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. Respect diversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: - Obtaining informed consent Addressing anger, confusion, and misunderstanding Initiating and withdrawing dialysis Appropriateness and choice of renal replacement modality. Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | B23 | | 16 | 2 | | * | |
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| Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences. Respect diversity and difference, including but not limited to the impact of age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: - Obtaining informed consent Addressing anger, confusion, and misunderstanding Initiating and withdrawing dialysis Appropriateness and choice of renal replacement modality. Bay Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | B25 | Present medical information effectively to the public or media about a | 17 | 2 | | * | |
| B27 age, level of functioning, gender, religion, and cultural beliefs on decision-making. Address challenging communication issues effectively, such as: Obtaining informed consent. Addressing anger, confusion, and misunderstanding. Initiating and withdrawing dialysis. Appropriateness and choice of renal replacement modality. B29 Maintain clear, accurate, and appropriate records of clinical encounters and plans. | | | | B26 | Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and | 17 | 2 | | * | |
| - Obtaining informed consent Addressing anger, confusion, and misunderstanding Initiating and withdrawing dialysis Appropriateness and choice of renal replacement modality. B29 Maintain clear, accurate, and appropriate records of clinical encounters and plans. 17 2 ** | | | | B27 | age, level of functioning, gender, religion, and cultural beliefs on decision- | 17 | 3 | | * | |
| plans. 17 2 | | | | B28 | Obtaining informed consent.Addressing anger, confusion, and misunderstanding.Initiating and withdrawing dialysis. | 17 | 2 | | * | |
| B30 Provide clear, accurate, and appropriate consultation reports. 17 2 * | | | | B29 | | 17 | 2 | | * | |
| | | | | B30 | Provide clear, accurate, and appropriate consultation reports. | 17 | 2 | | * | |

| | | | Document the learning process | 20 | l 2 | | * | |
|-----------------|----|-----|--|----|-----|---|----------|---|
| | | B31 | Document the learning process. | 20 | 2 | | * | |
| | | B32 | Select effective teaching strategies and content to facilitate others' learning. | 20 | 2 | | * | |
| | | B33 | Demonstrate an effective lecture or presentation. | 20 | 2 | | * | |
| | | B34 | Provide effective feedback. | 20 | 2 | | * | |
| | | C1 | Seek appropriate consultation from other health professionals, recognizing | 16 | 2 | | | |
| | | | the limits of their own expertise Participate effectively and appropriately in an interprofessional health care | | | | | |
| | | C2 | team | 17 | 2 | | | |
| | | С3 | Describe the specialist's roles and responsibilities to other professionals. | 17 | 1 | * | | * |
| | | C4 | Describe the roles and responsibilities of other professionals within the health care team. Members of this team may include nurses, clinical nutritionists, social workers, pharmacy staff, physiotherapists, occupational therapists, teachers, child life specialists, psychologists, hospital management staff, biomedical technicians, and other physicians, in addition to the nephrologist. | 17 | 1 | * | | * |
| C. Collaborator | F2 | C5 | Recognize and respect the diversity of roles, responsibilities, and competences of other professionals in relation to their own. | 17 | 1,3 | * | | * |
| | | C6 | Work with others to assess, plan, provide, and integrate care for individuals or groups of patients, in particular those with progressive kidney disease, on dialysis and with a renal transplant. | 17 | 2 | | | |
| | | C7 | Work with others to assess, plan, provide, and review other tasks, such as research problems, educational work, program reviews, or administrative responsibilities. | 17 | 2 | | | |
| | | C8 | Participate effectively in interprofessional team meetings. | 17 | 2 | | | |
| | | C9 | Enter into interdependent relationships with other professions for the provision of quality care. | 17 | 3 | | | |
| | | C10 | Respect differences and address misunderstandings and limitations in other professionals. | 18 | 3 | | | |
| | | C11 | Work collaboratively with others in their organizations. | 18 | 3 | | | |
| | | D1 | Perform rounds regularly and make treatment decisions with appropriate supervision. | 8 | 2 | | | |
| | F1 | D2 | Practicing a team approach in the care of patients on HD. | 9 | 2 | | | |
| | | D3 | Practicing a team approach in the care of patients on PD. | 10 | 2 | | | |
| | | D4 | Attend all combined medical and surgical transplant rounds to review program policies and review complex patients for the wait list. | 10 | 2 | | | |
| | | D5 | Demonstrate the ability to prioritize professional duties effectively when faced with multiple patients and problems. | 13 | 3 | | | |
| | | D6 | Contribute to the enhancement of quality care and patient safety in nephrology, integrating currently available best evidence and best practices. | 14 | 2 | | | |
| | | D7 | Describe the principles of team dynamics. | 18 | 1 | * | | |
| | | D8 | Demonstrate leadership in a health care team as appropriate. | 18 | 3 | | | |
| | | D9 | Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict | 18 | 2 | | | |
| | | D10 | Work with other professionals to prevent conflicts. | 18 | 2 | | | |
| | | D11 | Participate in activities that contribute to the effectiveness of their health care organizations and systems | 18 | 2 | | | |
| | | D12 | Participate in systemic quality process evaluation and improvement, such as patient safety initiatives or quality assurance processes in the dialysis unit. | 18 | 2 | | | |
| | | D13 | Describe the structure and function of the health care system as it relates to nephrology, including the roles of physicians at the local, regional, and national level in the provision of predialysis care, dialysis therapies, and living and deceased kidney transplantation. | 18 | 1 | * | | |
| | | D14 | Describe principles of health care financing, including physician remuneration, budgeting, and organizational funding. | 18 | 1 | * | | |
| | | D15 | Set priorities and manage time to balance patient care, practice requirements, outside activities, and personal life. | 18 | 3 | | | |
| | | D16 | Manage a practice including finances and human resources. | 18 | 2 | | | |
| D. Leader | | D17 | Implement processes to ensure personal practice improvement. | 18 | 2 | | | |
| | F2 | D18 | Employ information technology appropriately for patient care. | 18 | 2 | | | |
| | | D19 | Nephrologists are able to Employ collaborative negotiation to resolve conflicts. | 18 | 2 | | | |
| | | D20 | Recognize one's own differences, misunderstanding, and limitations that may contribute to interprofessional tension | 18 | 3 | | | |

| D21 | Reflect on interprofessional team function. | 18 | 1 | * | |
|-----|---|----|---|---|--|
| D22 | Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency, and access with optimal patient care, in particular with highcost therapies or scarce societal resources such as dialysis and deceased donor organs. | 19 | 1 | * | |
| D23 | Lead or implement change in health care. | 19 | 2 | | |
| D24 | Apply evidence and management processes for cost-appropriate care for individual patients with kidney disease as well as at a systems level. | 19 | 2 | | |
| D25 | Chair or participate effectively in committees and meetings. | 19 | 2 | | |
| D26 | Plan relevant elements of health care delivery (e.g., work schedules). | 19 | 2 | | |
| D27 | Describe the principles of maintenance of competence. | 20 | 1 | * | |
| D28 | Describe the principles and strategies for implementing a personal knowledge management system. | 20 | 1 | * | |
| D29 | Recognize and reflect on learning issues in practice. | 20 | 1 | * | |
| D30 | Conduct a personal practice audit. | 20 | 2 | | |
| D31 | Integrate new learning into practice. | 20 | 2 | | |
| D32 | Manage conflicts of interest. | 21 | 2 | | |
| D33 | Participate in peer review. | 21 | 2 | | |
| D34 | Demonstrate a commitment to physician health and sustainable practice | 21 | 3 | | |