

Fellowship Training Program Curriculum

	<i>Consult/Transplant Service</i>	<i>Dialysis Service</i>	<i>St Elizabeth's</i>	<i>Independent Study</i>	<i>Kidney and BP Center</i>	<i>DCI, Boston</i>	<i>Fellows Conference</i>	<i>Research Conference</i>	<i>Journal Club</i>	<i>Harrington Rounds</i>	<i>Transplant Conference</i>	<i>Access Rounds</i>	<i>Dialysis Rounds</i>	<i>Medical Grand Rounds</i>
Patient Care														
Take medical history	●	●	●		●	●								
Perform physical examination	●	●	●		●	●								
Urinalysis and sediment eval	●		●		●									
Interpret laboratory data	●	●	●		●	●								
Interpret radiographic data	●	●	●		●	●								
Determine diagnostic plan	●	●	●		●	●								
Institute therapeutic plan	●	●	●		●	●								
Assess response to therapy	●	●	●		●	●								
Communicate effectively with patients	●	●	●		●	●								
Coordinate care between referral and primary care teams	●	●	●		●	●								

Medical Knowledge and Skills

	<i>Consult/Transplant Service</i>	<i>Dialysis Service</i>	<i>St Elizabeth's</i>	<i>Independent Study</i>	<i>Kidney and BP Center</i>	<i>DCI, Boston</i>	<i>Fellows Conference</i>	<i>Research Conference</i>	<i>Journal Club</i>	<i>Harrington Rounds</i>	<i>Transplant Conference</i>	<i>Access Rounds</i>	<i>Dialysis Rounds</i>	<i>Medical Grand Rounds</i>
Fluid and Electrolytes														
Hyperkalemia	●	●	●		●	●	●	●	●	●	●		●	●
Hypokalemia	●	●	●		●	●	●	●	●	●	●		●	●
Hypernatremia	●	●	●		●	●	●	●	●	●	●		●	●
Diabetes Insipidus	●		●		●		●	●	●	●			●	●
Hyponatremia	●	●	●		●	●	●	●	●	●	●		●	●
SiADH	●		●		●		●	●	●	●				●
Hyperphosphatemia	●	●	●		●	●	●	●	●	●	●		●	●
Hypophosphatemia	●	●	●		●	●	●	●	●	●	●		●	●
Hypermagnesemia	●	●	●		●	●	●	●	●	●	●			●
Hypomagnesemia	●	●	●		●	●	●	●	●	●	●		●	●
Hypercalcemia	●	●	●		●	●	●	●	●	●	●		●	●
Hyperparathyroidism	●	●	●		●	●	●	●	●	●	●		●	●
Hypocalcemia	●	●	●		●	●	●	●	●	●	●		●	●
Acid/Base														
Metabolic acidosis	●	●	●		●	●	●	●	●	●	●		●	●
Distal RTA	●		●		●		●	●	●	●				●
Proximal RTA	●		●		●		●	●	●	●				●
Type IV RTA	●		●		●		●	●	●	●				●
Anion gap acidoses	●	●	●		●	●	●	●	●	●	●		●	●
Diabetic ketoacidosis	●	●	●		●	●	●	●	●	●	●		●	●
Lactic acidosis	●	●	●		●	●	●	●	●	●	●		●	●

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Acid/Base (cont)														
Metabolic alkaloses	●	●	●		●	●	●	●	●	●	●		●	●
Contraction alkalosis	●		●		●		●	●	●	●	●			●
Hypermineralocorticoidism	●		●		●	●	●	●	●	●				●
Respiratory acidosis	●	●	●		●	●	●	●	●	●	●		●	●
Respiratory alkalosis	●	●	●		●	●	●	●	●	●	●		●	●
Acute Kidney Injury														
Perfusion-related injury	●		●		●		●	●	●	●				●
Obstructive nephropathy	●		●		●		●	●	●	●	●		●	●
Acute tubular necrosis	●		●		●		●	●	●	●	●		●	●
Acute interstitial nephritis	●		●		●		●	●	●	●	●		●	●
Rapidly progressive GN	●		●		●		●	●	●	●	●		●	●
Contrast nephropathy	●		●		●		●	●	●	●	●	●	●	●
Atheroembolic kidney disease	●		●		●		●	●	●	●	●		●	●
Kidney disease in pregnancy	●		●		●		●	●	●	●	●		●	●
Role of dialysis in AKI	●		●				●	●	●	●	●	●	●	●
Continuous renal replacement therapies	●	●	●			●	●	●	●	●	●	●	●	●
Chronic Kidney Disease														
Urinalysis and sediment eval	●		●		●		●	●	●	●	●			●
Staging of CKD	●	●	●		●	●	●	●	●	●	●			●
Markers of kidney damage	●		●		●		●	●	●	●	●		●	●
Role of the kidney biopsy and renal path	●		●		●		●	●	●	●	●		●	●
Imaging the kidney	●		●		●		●	●	●	●	●		●	●

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<i>Chronic Kidney Disease (cont)</i>														
Proteinuria	●		●		●		●	●	●	●	●		●	●
Hematuria	●		●		●		●	●	●	●	●		●	●
Kidney stones	●		●		●		●	●	●	●	●		●	●
PKD	●	●	●		●	●	●	●	●	●	●		●	●
Tubular syndromes	●		●		●		●	●	●	●	●		●	●
Chronic interstitial nephritis	●		●		●		●	●	●	●	●		●	●
Urinary tract infections	●	●	●		●	●	●	●	●	●	●		●	●
Congenital kidney disease	●		●		●		●	●	●	●	●		●	●
Progression of CKD	●		●		●		●	●	●	●	●			●
Renin-angiotensin blockade	●	●	●		●	●	●	●	●	●	●		●	●
Complications of CKD	●	●	●		●	●	●	●	●	●	●			●
Anemia of CKD	●	●	●		●	●	●	●	●	●	●			●
Iron deficiency in CKD	●	●	●		●	●	●	●	●	●	●			●
Hyperphosphatemia	●	●	●		●	●	●	●	●	●	●			●
Secondary hyperparathyroidism	●	●	●		●	●	●	●	●	●	●		●	●
Renal osteodystrophy	●	●	●		●	●	●	●	●	●	●		●	●
Metabolic Acidosis of CKD	●	●	●		●	●	●	●	●	●	●			●
Uremia	●	●	●		●	●	●	●	●	●	●		●	●
Nutritional issues in CKD	●		●		●		●	●	●	●	●			●
Pharmacokinetics in CKD	●		●		●		●	●	●	●	●			●
Psychosocial impact of CKD	●		●		●		●	●	●	●	●			●
Kidney disease in the elderly	●	●	●		●	●	●	●	●	●	●		●	●
Pregnancy in CKD	●	●	●		●	●	●	●	●	●	●		●	●

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Glomerular Diseases														
Mechanisms of glomerular disease	●		●		●		●	●	●	●	●			●
Wegener's granulomatosis	●		●		●		●	●	●	●	●			●
ANCA (+) vasculitis	●		●		●		●	●	●	●	●			●
Anti-GBM disease	●		●		●		●	●	●	●	●			●
Thrombotic microangiopathy	●		●		●		●	●	●	●	●			●
Anti-phospholipid Ab syndrome	●		●		●		●	●	●	●	●			●
Hemolytic-uremic syndrome	●		●		●		●	●	●	●	●			●
Lupus nephritis	●		●		●		●	●	●	●	●			●
MPGN	●		●		●		●	●	●	●	●			●
Hepatitis associated kidney disease	●		●		●		●	●	●	●	●			●
Cryoglobulinemia	●		●		●		●	●	●	●	●			●
Minimal change disease	●		●		●		●	●	●	●	●			●
FSGS	●		●		●		●	●	●	●	●			●
HIVAN	●		●		●		●	●	●	●	●			●
Diabetic nephropathy	●		●		●		●	●	●	●	●			●
Hypertensive nephrosclerosis	●		●		●		●	●	●	●	●			●
Thin BM disease	●		●		●		●	●	●	●	●			●
Alport's syndrome	●		●		●		●	●	●	●	●			●
IgA nephropathy and HSP	●		●		●		●	●	●	●	●			●
Multiple myeloma	●		●		●		●	●	●	●	●			●
Amyloidosis	●	●	●		●	●	●	●	●	●	●			●
Deposition diseases	●		●		●		●	●	●	●	●			●
Pathology of glomerular disease	●		●		●		●	●	●	●	●			●

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Hypertension														
Blood pressure regulation	●	●	●		●	●	●	●	●	●	●		●	●
Essential hypertension	●	●	●		●	●	●	●	●	●	●		●	●
Secondary hypertension	●	●	●		●	●	●	●	●	●	●		●	●
Renovascular disease	●	●	●		●	●	●	●	●	●	●		●	●
Hypermineralocorticoidism	●	●	●		●	●	●	●	●	●	●		●	●
Pheochromocytoma	●	●	●		●	●	●	●	●	●	●		●	●
Management of refractory HTN	●	●	●		●	●	●	●	●	●	●		●	●
Diuretics	●	●	●		●	●	●	●	●	●	●		●	●
Transplantation														
Evaluation of transplant candidacy	●	●	●		●	●	●	●	●	●	●		●	●
Evaluation of kidney donors	●				●		●	●	●	●	●			●
Peri-operative transplant care	●						●	●	●	●	●			●
Post-transplant complications	●		●		●		●	●	●	●	●			●
Delayed graft function	●				●	●	●	●	●	●	●			●
Transplant immunology	●		●		●		●	●	●	●	●			●
Induction therapy	●						●	●	●	●	●			●
Calcineurin inhibitors	●		●		●		●	●	●	●	●			●
Anti-proliferative therapy	●		●		●		●	●	●	●	●			●
Steroids in transplantation	●		●		●		●	●	●	●	●			●
Acute rejection	●		●		●		●	●	●	●	●			●
Salvage immunosuppression	●		●		●		●	●	●	●	●			●
HUS after transplantation	●		●		●		●	●	●	●	●			●
Care of the immunocompromised patient	●		●		●		●	●	●	●	●			●

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<i>Transplantation (cont)</i>														
Transplant ID	●		●		●		●	●	●	●	●			●
Bone disease after transplantation	●		●		●		●	●	●	●	●			●
Tertiary hyperparathyroidism	●		●		●		●	●	●	●	●			●
Post-transplant erythrocytosis	●		●		●		●	●	●	●	●			●
Pathology of kidney transplantation	●		●		●		●	●	●	●	●			●
Dialysis														
Modality education	●	●	●		●	●	●	●	●	●			●	●
Hemodialysis access	●	●	●		●	●	●	●	●	●	●	●	●	●
Hemodialysis kinetics	●	●	●			●	●	●	●	●	●	●	●	●
Complications of HD	●	●	●			●	●	●	●	●	●	●	●	●
Hypotension on HD	●	●	●			●	●	●	●	●	●		●	●
Reuse dialyzers						●	●	●	●	●			●	●
Home hemodialysis						●	●	●	●	●			●	●
Peritoneal dialysis catheters		●	●		●	●	●	●	●	●		●	●	●
PD adequacy and kinetics		●	●		●	●	●	●	●	●	●	●	●	●
Complications of PD		●	●		●	●	●	●	●	●	●	●	●	●
PD ultrafiltration and UF failure		●	●		●	●	●	●	●	●	●	●	●	●
Peritonitis		●	●		●	●	●	●	●	●	●	●	●	●
Exit site and tunnel infections		●	●		●	●	●	●	●	●	●	●	●	●
Anemia in ESRD		●	●		●	●	●	●	●	●	●		●	●
Bone disease in ESRD		●	●		●	●	●	●	●	●	●		●	●
BP management in ESRD		●	●		●	●	●	●	●	●	●		●	●
Electrolyte management in ESRD		●	●		●	●	●	●	●	●	●		●	●

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<i>Dialysis (cont)</i>														
Nutritional issues in ESRD		●	●		●	●	●	●	●	●	●		●	●
Pharmacokinetic issues in ESRD		●	●		●	●	●	●	●	●	●		●	●
Psychosocial impact of ESRD		●	●		●	●	●	●	●	●	●		●	●
Withdrawal of dialysis and palliative care		●	●		●	●	●	●	●	●			●	●
Procedures														
Native kidney biopsy	●		●		●									
Transplant kidney biopsy	●		●		●									
Internal jugular catheter placement	●	●	●											
Femoral vein catheter placement	●	●	●											
Subclavian vein catheter placement	●	●	●											
Urinalysis and sediment evaluation	●		●		●									
Hemodialysis	●	●	●			●								
Peritoneal Dialysis	●	●	●		●	●								
Continuous renal replacement therapies	●	●	●											
System-Based Practice														
Billing and coding	●	●	●		●	●	●						●	●
Decision making skills	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Informatics	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Universal precautions	●	●	●		●	●								●
Ethics	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Medical/legal issues	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cost containment	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Understand the role of the consultant	●	●	●		●	●								

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Interpersonal and Communication Skills														
Communicate effectively with patients	●	●	●		●	●	●			●	●	●	●	●
Coordinate care between consultant and primary care team	●	●	●		●	●	●			●	●	●	●	●
Document patient care in a timely fashion	●	●	●		●	●					●	●	●	●
Communicate scholarly work				●				●	●	●				●
Professionalism														
Treat patients and their families with the utmost respect	●	●	●		●	●								
Understand and appreciate the role of the ancillary staff	●	●	●		●	●								
Interact effectively with other health care providers	●	●	●		●	●								
Maintain a proper appearance and composure	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Demonstrate integrity	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Practice-Based Learning and Improvement														
Understand and critique medical literature	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Recognize the obstacles to providing care	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Incorporate EBM into patient care	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Study design and research methodology				●			●	●	●	●				●
Statistical tools				●			●	●	●	●				●