



Nephrology

Maintenance of Certification Examination Blueprint

What Does the Examination Cover?

The exam is designed to evaluate the extent of the candidate's knowledge and clinical judgment in the areas in which a nephrologist should demonstrate a high level of competence. Expertise in the broad domain of nephrology, and the diagnosis and treatment of both common and rare conditions that have important consequences for patients, will be assessed. The exam also will test knowledge of general internal medicine as encountered in the practice of nephrology.

Exam content is consistent with a pre-established blueprint, or table of specifications. The blueprint is developed by the Subspecialty Board on Nephrology and is reviewed and revised annually to ensure that it is current. In addition, practicing nephrologists, nephrology trainees, and training program directors are surveyed periodically to provide feedback on the blueprinting process. The blueprint serves as a guide in developing the exam.

The majority of questions (over 75 percent) are based on patient presentations occurring in settings that reflect current medical practice. Questions requiring simple recall of medical facts are in the minority; the majority of items require integration of information from several sources, prioritization of alternatives, and/or utilization of clinical judgment in reaching a correct conclusion. Some questions require interpretation of pictorial material such as radiographs, sonograms, photomicrographs, and radionuclide studies.

The content areas covered and their relative proportions of coverage in specified areas are as follows:

Medical Content Category	Relative Percentage
Chronic kidney disease	14
Glomerular/Vascular disorders	12
Kidney transplantation	10
Hypertension	10
Electrolyte physiology:	
Sodium/Water	10
Acid–Base/Potassium	10
Clinical pharmacology and Miscellaneous	10
Tubular/Interstitial and cystic disorders	6
Mineral metabolism	8
Acute renal failure/ICU nephrology	10
Total	100%

Cross-Content Areas	Relative Percentage
Adolescent Medicine	2
Basic Science	2
Critical Care Medicine	2
End-of-Life/Palliative Care	2
Clinical Epidemiology	2
Ethics	2
Geriatric Medicine	5
Nutrition	2
Preventive Medicine	2
Medical Literature	2

Content Outline of the Maintenance of Certification Examination

This content outline describes a *typical* Nephrology Maintenance of Certification Examination; actual content on a specific examination may vary. Each medical-content category from the examination blueprint is listed in boldface below, along with target blueprint percentage and total number of questions in the category. Within each category, the approximate distribution of questions in specified areas also is listed.

Medical Category (Relative Percentage)	Number of Questions
Sodium/Water (10%)	17–19 as follows:
Hyponatremia	6–8
Hypernatremia	3–5
Oliguria/Polyuria	1–3
Salt excess	2–4
Salt depletion	2–4
Other disorders	0–1

Acid–Base/Potassium (10%)	17–19 as follows:
Metabolic acidosis	3–5
Metabolic alkalosis	2–4
Mixed respiratory and acid–base disturbances	2–4
Hyperkalemia	3–5
Hypokalemia and potassium deficiency	2–4
Respiratory acid–base disorders	1–3
Other disorders	0–1

Medical Category (Relative Percentage)	Number of Questions
Mineral metabolism (8%)	13–15 as follows:
Renal osteodystrophy	3–5
Nephrolithiasis	3–5
Disorders of calcium metabolism	3–5
Disorders of phosphate metabolism	0–2
Disorders of magnesium metabolism	0–2
Other disorders	0–1

Chronic Kidney Disease (14%)	24–26 as follows:
Anemia	3–5
Cardiovascular disease	3–5
Hemodialysis	5–7
Peritoneal dialysis	3–5
Progression to ESRD	1–3
Differential diagnosis	1–3
Complications/Outcomes	1–3
Other disorders	0–1

Hypertension (10%)	17–19 as follows:
Essential hypertension/pathogenesis	0–2
Hypertension with kidney disease	3–5
Renovascular hypertension	3–5
Other secondary forms of hypertension	3–5
Pharmacology of hypertension therapy	3–5
Complications/Target-organ damage	1–3
Epidemiology/Genetics	0–2
Other disorders	0–1

Tubular/Interstitial & Cystic Disorders (6%)	10–12 as follows:
Urinary tract infections	1–3
Renal tubular disorders	1–3
Chronic tubulointerstitial disease	6–8
Other disorders	0–1

Medical Category (Relative Percentage)	Number of Questions
Glomerular/Vascular (12%)	21–23 as follows:
Indications/complications of kidney biopsy	0–2
Nephritic glomerular disorders and vasculitis/vasculopathy	6–8
Nephrotic/heavy-proteinuric glomerular disorders	5–7
Diagnosis of glomerular/vascular disorders based on kidney biopsy	3–5
Diagnosis/treatment of diabetic nephropathy	2–4
Epidemiology/natural history of glomerular disorders	0–2
Other disorders	0–1

Kidney Transplantation (10%)	18–22 as follows:
Pharmacology of immunosuppressive drugs	3–7
Long-term complications	2–6
Recipient/donor outcomes (i.e., patient/graft survival rates, causes of patient death, graft loss)	2–6
Immunology and clinical patterns of allograft rejection	1–3
Perioperative management	1–3
Recipient and donor evaluation	2–4
Miscellaneous	0–1

Pharmacology/Miscellaneous (10%)	17–19 as follows:
Nephrotoxicity	7–9
Drug selection and dosing in kidney disease	3–5
Drug interactions/adverse effects	2–4
Evaluation of hematuria and other urological conditions	0–2
Mechanisms	0–2
Miscellaneous	0–1

Acute Renal Failure/ICU Nephrology (10%)	17–19 as follows:
Differential diagnosis	3–5
Management	6–8
Prevention	0–2
Complications/Outcomes	3–5
ICU	1–3
Miscellaneous	0–1