

Proteinuria

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Rationale

Proteinuria is often the first indicator of potentially serious underlying renal disease.

Causal Conditions

(list not exhaustive)

- Orthostatic proteinuria
- Tubulointerstitial (interstitial nephritis)
- Glomerular
 - a. Active urine sediment
 - Primary (e.g., IgA nephropathy, membranoproliferative glomerulonephritis)
 - Secondary (e.g., systemic lupus erythematosus (SLE), post-infectious)
 - b. Non-active urine sediment
 - Primary (e.g. minimal change, focal segmental glomerulosclerosis)
 - Secondary (e.g., diabetes, amyloid)

Key Objectives

Given a patient with proteinuria, the candidate will diagnose the cause, severity, and complications, and will initiate an appropriate management plan. In particular, the candidate should recognize the importance of proteinuria as a predictor of chronic kidney disease.

Enabling Objectives

Given a patient with proteinuria, the candidate will

- list and interpret critical clinical findings, including
 - a. perform a history and physical exam to elicit symptoms and signs of underlying diseases associated with kidney disease (e.g., diabetes mellitus, connective tissue diseases);
- list and interpret critical investigations, including
 - a. quantitative measures of proteinuria (e.g., albumin/creatinine ratio, 24 hour protein collection) to guide further diagnostic work-up;
 - b. tests to determine the underlying cause of the proteinuria (e.g., blood glucose, serum protein electrophoresis);
- construct an effective initial management plan, including
 - a. initiate measures to delay progression of chronic kidney disease associated with proteinuria (e.g., angiotensin-converting enzyme inhibition, treatment of hypertension and diabetes);
 - b. refer the patient for specialized diagnostic tests and care (e.g., renal biopsy), if necessary.