

# Hematuria

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## Rationale

Hematuria can be gross or microscopic. Although gross hematuria is often caused by a significant underlying pathology, both microscopic and gross hematuria require investigation.

## Causal Conditions

(list not exhaustive)

- Renal
  - a. Glomerular disease (e.g., systemic lupus erythematosus, hemolytic uremic syndrome, vasculitis)
  - b. Nonglomerular (e.g., acute interstitial nephritis, renal tumour, exercise)
- Postrenal (e.g., stones, bladder tumour, benign prostatic hyperplasia, cystitis)
- Hematologic (e.g., coagulopathy, sickle hemoglobinopathy)
- Heme-negative red urine (e.g., medications, food)

## Key Objectives

Given a patient with hematuria, the candidate will interpret a urinalysis, paying attention to differentiating glomerular from nonglomerular causes, and construct an initial management plan.

## Enabling Objectives

Given a patient with hematuria, the candidate will

- list and interpret clinical findings, including results of a detailed history and an appropriate physical examination;
- list and interpret investigations, including a urinalysis and urine microscopy, as well as further laboratory and imaging studies as appropriate; and

- construct an appropriate initial management plan, including appropriate follow-up and referral for specialized procedures as required (e.g., renal biopsy, cystoscopy).