

Madigan Army Medical Center Referral Guidelines

Hematuria

Diagnosis/Definition

The occasional red blood cell in the urine is not a concerning or significant finding.

Red blood cells in the urine are very common after strenuous activity such as running, prolonged marching, contact sports, and airborne operations.

Urinary tract infections (UTI) are another common cause of hematuria and urine tests to evaluate for persistent hematuria should be obtained no sooner than 4 weeks after treatment of a UTI.

Significant hematuria includes:

- any episode of gross hematuria
- any episode of macroscopic hematuria (defined as 100 RBC or more per high powered field [phpf])
- 3 or more RBC phpf on at least 2 out of 3 properly collected and properly performed urinalyses

Initial Diagnosis and Management

Initial diagnosis is by microscopic examination of a properly collected urinalysis.

Proper collection is defined as a mid stream specimen in a patient who has avoided strenuous physical exercise or instrumentation for at least 48hrs. Women should not be menstruating.

- If women cannot perform an adequate clean catch urinalysis, obtain a catheterized specimen for analysis.

Urine microscopy must be performed in conjunction with the chemical strip (aka dipstick) urinalysis.

- Dipstick urinalysis correlates poorly with quantitative evaluations of formed elements (RBC/HPF). Microscopic analysis is required to quantify the number of RBC, if present, and differentiate hematuria from hemoglobinuria and myoglobinuria.

Urine should be sent for culture and sensitivity and the patient treated if there is clinical concern and/or laboratory evidence of infection.

Serum basic metabolic panel/Chem7 should be obtained to assess kidney function.

Pregnancy test should be obtained in all females of childbearing potential.

A PSA should be checked in all men between the ages of 50 and 79 and in all African American men and/or men with a family history of prostate cancer beginning at age 40.

Ongoing Management and Objectives

Patients with urinary tract infection should be treated appropriately and reevaluated for hematuria no sooner than 6 weeks after treatment.

Patients with microscopic hematuria and a recent history of trauma should be reevaluated for hematuria no sooner than 6 weeks.

- Patients with microscopic hematuria and a history of strenuous activity within 24 hours of urinalysis should be reevaluated for hematuria after 48 hours of no strenuous activity.

Indications for Specialty Care Referral

Any patient with gross hematuria.

Those patients with microscopic hematuria as defined above with no evidence of infection.

In order to facilitate timely care, the urology service will screen the records and contact all patients referred for hematuria.

- If a patient does not meet the definition for significant hematuria the consult will be returned to the ordering provider.
- If a patient cannot be contacted, the consult will be returned to the ordering provider.
- Patients with gross hematuria should expect their evaluations to be completed within 30 days.
- Patients with microscopic hematuria should expect their evaluations to be completed within 60 days.

Criteria for Return to Primary Care

If the evaluation does not reveal a concerning finding, the patient will be released to their primary care provider for annual urinalyses.

- Patients with persistent microscopic hematuria should be referred to urology every 3 years for repeat evaluation.
- Patients should be referred to urology for any episode of macroscopic or gross hematuria.

Last Review for this Guideline: **March 2010**
Referral Guidelines require review every three years.

Maintained by the Madigan Army Medical Center - Quality Services Division
Clinical Practice and Referral Guidelines Administrator