

Guidelines for the Ordering of Microscopic Urinalysis

1. Background

Urinalysis has been a frequently ordered investigation of ambulatory patients. The addition of Leucocyte Esterase to the dipstick has permitted the detection of neutrophils or their products in urine without the need for routine microscopy.

2. Limitations

Microscopic examination of urine is no more sensitive than dipstick testing for detection of white blood cells or of haematuria. Routine microscopic urinalysis has been found not to be cost effective. The most common cause for haemoglobin in the urine of adult females is menstruation.

3. Indications

Microscopic examination of the urine sediment should be specifically requested in patients for whom the finding of casts or crystals from a suspected metabolic disorder would alter the clinical management or diagnosis.

4. Interpretation

The presence of dysmorphic red cells, or of red cell, hemegranular or white cell casts on microscopic examination indicates renal disease, as does the presence of more than the occasional hyaline cast.

5. Recommendations

As a screening test in asymptomatic patients, microscopic urinalysis is not cost effective, but when specifically requested for patients for whom there exists the clinical suspicion of disease affecting the kidneys or urinary tract, the yield of clinically useful information is significantly increased.

6. References

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Guidelines for Clinical Laboratory Practice

The OAML, through its Quality Assurance of Clinical Laboratory Practice Program, co-ordinates the development, dissemination, implementation and evaluation of Guidelines for Clinical Laboratory Practice.

This guideline, in its original form, was developed jointly by the Ontario Medical Association (OMA) and the OAML and was issued in August, 1994. The current re-issue has been revised as to format.

The comments of end-users are essential to the development of guidelines which will encourage adherence. You are encouraged to submit your comments on this or any other OAML Guideline to:

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