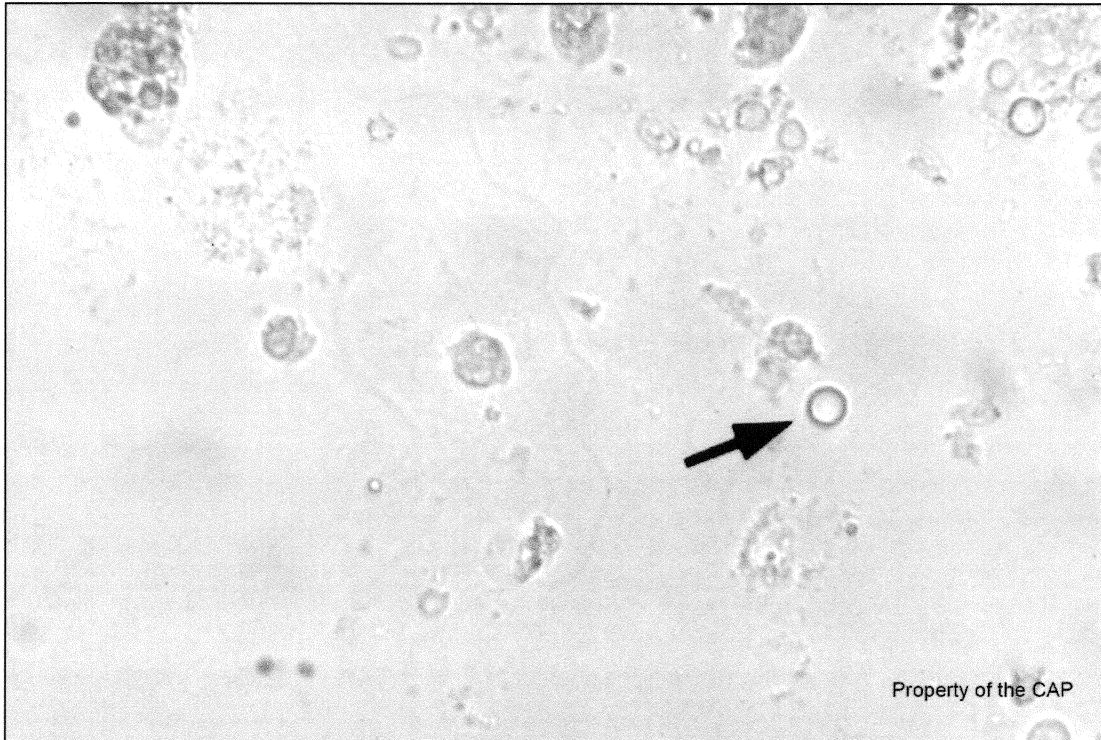


CMMP – Urine Sediment Color Photographs

Case History USP-01 and USP-03

This urine sample is from a 14-year-old girl who is asymptomatic. Laboratory data include: specific gravity = 1.012; pH = 5.5; ketones, glucose, protein, nitrite, bilirubin, and urobilinogen = negative; blood and leukocyte esterase = positive.

USP-01



(URINE, UNSTAINED, HIGH POWER)

High power magnification

Identification	CMMP Participants		Performance Evaluation
	No.	%	

Erythrocyte	3991	95.9	Good
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The arrowed objects are erythrocytes, as correctly identified by 95.9% of participants. Erythrocytes, or red blood cells, are round with no nucleus and 7 to 8 μm in diameter. In unstained specimens they appear as pale yellow-orange discs in, however the cells may be colorless or fainter if the sample is old or hypotonic. In hypertonic urine red blood cells may become crenated.

While small numbers of erythrocytes may be found in the urine sediment of otherwise normal patients, larger numbers are suggestive of disease in the kidney or urinary tract. Hematuria can also be seen in patients who have undergone trauma or have bleeding disorders or iatrogenic anticoagulation. Contamination by menstrual blood frequently causes falsely positive test results.