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## Assessment of Urine Analysis Diagnostic Role: A Cross-Sectional Study in South Eastern of Iran

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### ABSTRACT

**Introduction:** Testing for the presence of micro-organisms in the urinary tract, in order to diagnose asymptomatic bacteriuria or symptomatic urinary tract infections (UTI), is very common at all levels of health care. This study was conducted to assess the diagnostic values for bacteriuria and pyuria and evaluate their roles in therapeutic decision making. **Methods:** A total of 1770 urine samples were obtained by simple randomized method from the central Laboratory of the Ali-ebne-Abitaleb Hospital (Zahedan, Iran). Urine culture was done to compare urine microscopy profiles. Sensitivity, specificity, positive and negative predictive values of the findings of urine analysis was described. **Results:** 1055 (59.6%) of the cases were females. 13% (230/1770) of patients had positive urine cultures. The most prevalent cultured micro-organism was *E. coli* (63%). Sensitivity, specificity, positive and negative predictive values of microscopic pyuria were 85%, 88%, 51%, 97%, respectively. As the same for bacteriuria, these calculations were 97%, 98%, 90%, 99% and for the category with both bacteriuria and pyuria were 82%, 99%, 95%, 97%, respectively. **Conclusion:** According to the results, it is concluded that the urine microscopy features seems to be useful to exclude the presence of infection if the results of both bacteriuria and pyuria are negative, but positive test results have to be confirmed.

### KEYWORDS

Urinary Tract Infection; Bacteriuria; Pyuria

### Cite this paper

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