



Title	Point-of-Care Testing
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Aim

To determine the clinical effectiveness and reliability of selected point-of-care testing (POCT) in specific settings when compared to central laboratory tests.

Conclusions and results

POCT for prothrombin time: INR (international normalized ratios) are within therapeutic range and comparable to central lab testing, but with higher client satisfaction.

POCT for HbA1c in primary care: The availability of HbA1c at the time of consultation has a positive impact by influencing the clinician to make appropriate management decisions. HbA1c also leads to better control of diabetes mellitus (reduction of HbA1c) in subsequent followup visits.

POCT for urine dipsticks in urinary tract infection (UTI): The use of urine dipsticks may reduce laboratory workloads for urine cultures and increase the percentage of positive cultures. In children, evidence shows that urine dipstick (combination of LE and nitrite) testing is useful in diagnosing or excluding UTI.

POCT for electrolytes (Na, K, Cl) in critical care: Evidence shows that POCT for sodium, potassium, and chloride in the critical care setting results in decreased turnaround time, increased staff satisfaction, and reduced blood loss.

POCT for magnesium in critical care: There is insufficient evidence to show that POCT of magnesium leads to improved clinical outcomes in critical care settings.

Recommendations

Before any POCT is considered, the clinical need should be clearly identified and evaluated at the specific setting – bearing in mind that the desired rapid turnaround time might also be achieved via an efficient mechanical transport system and bidirectional IT communication between the laboratory and end users

Methods

An electronic database search from 1990 to 2006 was carried out using appropriate keywords and keyword combinations. The literature retrieved was reviewed and critically appraised. Evidence was graded according to the modified Catalonian Agency for Health Technology Assessment & Research Scale.