

POSTER PRESENTATION

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# Laboratory sampling according to triage - how much does it cost?

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## Background

METTS has been shown to be a triage-system reducing mortality at the emergency department. It was stated that point-of-care-analysis of standardized laboratory samples in triage systems could reduce the costs for single patients. In this single centre study, we controlled if the costs for single patients at the emergency department could be reduced by standardized sampling according to METTS without point-of-care analysis.

## Methods

METTS was introduced as the triage system at our university hospital. The triage followed a standardized system following a user's guide, and standardized laboratory sample packages were created and taken accordingly. In contrast to the original concept using point-of-care-analysis, the samples were sent to the hospitals central laboratory.

The total costs for laboratory analysis during a three months period after the introduction of METTS at our emergency department were compared to their historical controls. The number of patients attended and the total costs for laboratory analysis were calculated according to the hospitals computerized attendance and accounting systems. Statistical analysis was performed using the unpaired two-tailed Student's T-test.

## Results

A total of 9000 patients were attended from December 2008 to february 2009 (period 1) and 8553 patients from December 2009 to february 2010 (period 2,  $p = 0.39$ ). Total costs for laboratory analysis was  $439.3 \pm 53$  TSKR in period 1 and  $670 \pm 21.6$  TSKR in period 2 ( $p = 0.0089$ ). Mean laboratory costs per patient were

$145.67 \pm 7$  SKR in period 1 and  $235.33 \pm 5$  SKR ( $p < 0.001$ ) in period 2, i.e. +61.55%.

## Conclusion

The introduction of standardized laboratory analysis using the hospitals central laboratory instead of point-of-care-systems results in significant increase of costs. Economically, the use of standardized sampling coupled to primary triage without point-of-care-analysis should be discouraged.

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