



We evaluated if the StatStrip Xpress Meter, a Lactate point of care testing (POCT) handled device, could be a valuable tool in the mobile intensive care units (MICU) to assess the severity of septic patients” Léguillier et al (2018).

Abstract:

AIM OF THE STUDY: We evaluated if the StatStrip Xpress Meter, a Lactate point of care testing (POCT) handled device, could be a valuable tool in the mobile intensive care units (MICU) to assess the severity of septic patients.

METHODS: We first investigated POCT analytical performance, then, using samples collected from 50 identified septic patients admitted to the intensive care unit (ICU), we compared lactate values obtained with the device to those obtained with four central laboratory analysers: one whole blood and three plasma-based methods.

RESULTS: Results were compared by least squares regression, Bland-Altman plot and by comparing concordance within clinically relevant lactate ranges. We observed a reliable analytical performance of the POCT (CVs < 3.8% for repeatability and <5.0% for reproducibility) an excellent correlation between POCT and central laboratory analysers (R^2 : 0.96-0.98, slopes:0.83-0.90, intercepts: 0.02-0.03) and an excellent concordance of the POCT results to the central laboratory analyser results (98-100%).

CONCLUSION: Whatever the methodology used, lactate values obtained are comparable and transferable between POCT and central laboratory analysers meaning that POCT could be a valuable tool in the MICU to evaluate the severity of septic patients and to better manage their hospital triage.

Reference:

Léguillier, T., Jouffroy, R., Boisson, M., Boussaroque, A., Chenevier-Gobeaux, C., Chaabouni, T., Vivien, B., Nivet-Antoine, V. and Beaudeau, J.L. (2018) Lactate POCT in mobile intensive care units for septic patients? A comparison of capillary blood method versus venous blood and plasma-based reference methods. *Clinical Biochemistry*. March 6th. .

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