

TECHNICAL NOTE



Study of haemolysis interference limit on serum potassium assay on Roche[®] Cobas 8000 and evaluation of corrected potassium

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ABSTRACT

Roche Diagnostics[®] decided a more restrictive haemolysis index (≤ 20 HI) for approval the release of serum potassium results. This study examined the risk of overestimating serum potassium results related to the HI according to the Ricos total error ($\pm 5.6\%$) and evaluated the approach of Martinez-Morillo and Alvarez to determine a corrected potassium. According to Ricos' criteria, our study showed compliant potassium results with HI less than or equal to 75. Between 90 and 100 HI, the results did not show a significant overestimation. The equation to obtain $K_{\text{corrected}}$ was: $K_{\text{measured}} - (0.004 \times \text{HI})$. The use of corrective formulas for adjusting results of potassium could help the laboratory to identify patients at increased risk and to repeat the test as soon as possible.

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KEYWORDS

Potassium; haemolysis index; analytical interference; overestimation; correcting results