“Evidence-based measures are required to boost staff knowledge base of preanalytical blood sample haemolysis for standardised and quality service. Monitoring and evaluation of the training, conducting and monitoring haemolysis rate are equally crucial.” Makhumula-Nkhoma et al (2014).

Blood sample haemolysis knowledge among clinical staff and phlebotomists
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Abstract:

AIMS AND OBJECTIVES: To investigate the association between confidence level in venepuncture and knowledge in determining causes of blood sample haemolysis among clinical staff and phlebotomists.

BACKGROUND: Various collection methods are used to perform venepuncture, also called phlebotomy, the act of drawing blood from a patient using a needle. The collection method
used has an impact on preanalytical blood sample haemolysis. Haemolysis is the breakdown of red blood cells, which makes the sample unsuitable. Despite available evidence on the common causes, extensive literature search showed a lack of published evidence on the association of haemolysis with staff confidence and knowledge.

DESIGN: A quantitative primary research design using survey method.

METHODS: A purposive sample of 290 clinical staff and phlebotomists conducting venepuncture in one North England hospital participated in this quantitative survey. A three-section web-based questionnaire comprising demographic profile, confidence and competence levels, and knowledge sections was used to collect data in 2012. The chi-squared test for independence was used to compare the distribution of responses for categorical data. anova was used to determine mean difference in the knowledge scores of staff with different confidence levels.

RESULTS: Almost 25% clinical staff and phlebotomists participated in the survey. There was an increase in confidence at the last venepuncture among staff of all categories. While doctors’ scores were higher compared with healthcare assistants’, \( p \leq 0.001 \), nurses’ were of wide range and lowest. There was no statistically significant difference (at the 5% level) in the total knowledge scores and confidence level at the last venepuncture \( F(2,4.690) = 1.67, \ p = 0.31 \) among staff of all categories.

CONCLUSION: Evidence-based measures are required to boost staff knowledge base of preanalytical blood sample haemolysis for standardised and quality service. Monitoring and evaluation of the training, conducting and monitoring haemolysis rate are equally crucial.

RELEVANCE TO CLINICAL PRACTICE: Although the hospital is succeeding in providing regular training in venepuncture, this is only one aspect of quality. The process and outcome also need interventions.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

Blood sample haemolysis knowledge among clinical staff and phlebotomists | 3