A retrospective lab-based analysis of errors contributing to rejected haematology and blood transfusion samples in Cork University Hospital with comparative study in University Hospital Kerry

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Background: Wrong Blood in Tube (WBIT) is a blood sampling error that has potentially fatal patient consequences. Sample mislabelling has been identified as a leading root cause.

Aim: To retrospectively categorise features of individual WBIT errors in two types of laboratories and compare and contrast findings across two Irish hospitals.

Methods: Records of WBIT error were retrieved from CUH and UHK laboratories using Q-Pulse, APEX and hard copy surveys. All records of WBIT error in 2015/2016 were included. Each record was examined to determine date, location, grade of staff and discovery. Research was conducted with the support of University College Cork Medical School.

Results: 211 errors were identified. Identified rates of error were 3 times higher in CUH versus UHK (9/100,000 samples and 3/100,000 samples respectively). Transfusion error rates were higher than haematology error rates in both hospitals. Haematology samples are labelled electronically in CUH and hand-written in UHK, however, no significant difference between the two types of sample existed (p=0.2). Location differences between the two hospitals were significant for GP errors (p=0.03) and Maternity errors (p=0.03) with greater numbers of error seen in CUH for both. Early discovery showed a significant difference (p=0.02) as did late discovery (p=0.018).

Conclusion: Distinct differences between rates and features of error exist between CUH and UHK. Similarities include higher proportions of transfusion error in both. Case ascertainment differed between transfusion and haematology due to method of recording. Further investigation into these findings is warranted.

Biography

Katie Liston graduated from University College Cork with a Bachelor of Medicine, Surgery and Obstetrics in 2018. Since then she has been working in Ireland and has recently completed her 1st year of internship in Cork city. Her main focus of research is the analysis of human factors that contribute to pre-analytical blood sampling errors and the various ways in which these errors can be minimised to promote patient safety.

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