



Delta checks proved to be an effective tool for detecting blood group errors and prevention of accidental mismatched blood transfusions” Makroo and Bhatia (2017).

Abstract:

BACKGROUND: Blood grouping is the single most important test performed by each and every transfusion service. A blood group error has a potential for causing severe life-threatening complications. A number of process strategies have been adopted at various institutions to prevent the occurrence of errors at the time of phlebotomy, pretransfusion testing, and blood administration. A delta check is one such quality control tool that involves the comparison of laboratory test results with results obtained on previous samples from the same patient.

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MATERIALS AND METHODS: We retrieved the records of all transfusion-related incidents reported in our institute, between January 2008 and December 2014. Errors identified as “Failed Delta checks” and their root cause analyses (RCA) were reviewed.

RESULTS: A total of 17,034 errors related to blood transfusion were reported. Of these, 38

were blood grouping errors. Seventeen blood group errors were identified due to failed delta checks, where the results of two individually drawn grouping samples yielded different blood group results. The RCA revealed that all of these errors occurred in the preanalytical phase of testing. Mislabeling resulting in wrong blood in tube was the most commonly identified cause, accounting for 11 of these errors, while problems with correct patient identification accounted for 5 failed delta checks.

CONCLUSION: Delta checks proved to be an effective tool for detecting blood group errors and prevention of accidental mismatched blood transfusions. Preanalytical errors in patient identification or sample labeling were the most frequent.

Reference:

Makroo, R.N. and Bhatia, A. (2017) Delta check for blood groups: A step ahead in blood safety. Asian Journal of Transfusion Science. 11(1), p.18-21.

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