

“Blood transfusion is not associated with significant changes in recipient vital signs. Our data could be used to develop reference ranges for transfusion-related vital signs” Gehrie et al (2015).

Reference:

Gehrie, E.A., Hendrickson, J.E. and Tormey, C.A. (2015) Variation in vital signs resulting from blood component administration in adults. Transfusion. April 13th. .

Interpretation of variables in vital signs during transfusion [@ivteam](http://ctt.ec/5h4EV+) #ivteam

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Abstract:

BACKGROUND: Although vital signs are routinely recorded before and after every transfusion, there are few published data on how these variables vary with component administration. Thus, there is very little evidence available to support guidelines that are intended to differentiate “benign” changes in vital signs from transfusion reactions. The aim of this study was to evaluate the variation in vitals observed after transfusion.

STUDY DESIGN AND METHODS: Retrospective data were extracted from blood bank records for 3496 component infusions (red blood cells, n = 2359; platelets, n = 478; plasma, n = 659) over a 1-year period. The following were collected: recipient pre- and posttransfusion vital signs (temperature, pulse rate, and blood pressure) and whether a transfusion reaction was reported.

RESULTS: Transfusion was associated with very mild median changes in temperature (approx. 0°C), pulse rate (<5 beats/min), or blood pressure (<5 mmHg) across all components. The transfusion reaction rate reported by clinical teams was 0.5%, but reported temperature changes indicated a higher reaction rate of 2.1% based on institutional criteria.

CONCLUSIONS: Blood transfusion is not associated with significant changes in recipient vital signs. Our data could be used to develop reference ranges for transfusion-related vital signs. More than 75% of transfusion reactions may not be reported to the blood bank.

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