

# RE. Autologous Fresh Whole Blood Transfusion Training – a Narrative Review and Report of U.S. Military Experience

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We write in response to the letter to the editor “Untangling the Forward Blood Transfusion Conversation” and thank the authors for their interest in our article on “Autologous Fresh Whole Blood Transfusion Training – a Narrative Review and Report of U.S. Military Experience”<sup>1</sup>. We acknowledge the concerns raised over possible intertwining autologous Fresh Whole Blood (FWB) transfusion training and therapeutic blood transfusion but view comparison of these topics as complimentary and informative rather than problematic.

The discussion of blood-borne viral transmission and transfusion reactions, whilst acknowledged in our manuscript as “virtually absent”, nevertheless is applicable. We acknowledge that whilst a volunteer as both the donor and recipient of autologous blood is naturally incapable of acquiring an infection from themselves, and we agree that routine viral testing is unnecessary for training. However, certain risks of blood transfusion training are still applicable. First, there is a risk of needle-stick injury to the person taking and administering the blood. Second, as the authors note there is the small but not zero chance of inadvertent transfusion of blood to someone other than the original donor. This risk is heightened when multiple volunteers participate simultaneously in training sessions that occur in the live clinical environment. Although there are no documented cases of adverse outcomes due to administrative

transfusion errors in the training environment, the rare but potentially serious risk observed in therapeutic transfusions remains<sup>2</sup>.

We acknowledge the link made between transfusion training and capability in our manuscript. The rationale for this is the observation that activation of the emergency donor panel is substantially slower without training. Our experience of 32 autologous transfusions over 8 training sessions demonstrated an improvement in the time period from activation of the process to commencement of blood transfusion from a mean of 75 minutes in the initial session to 41 minutes in the final 3 sessions (1). Further, it appears illogical if training is implemented as part of a low-titre O program not to concurrently assess antibody titres in O donors. To do so obviates the requirement to obtain a separate blood sample for the regular anti-A / anti-B testing necessary in such a program.

We agree that “prolonged deliberation over the training modality should not delay the end state”. Consequently, we advocate adoption of a training modality that is safe and effective, and replacement of this only when another option, such as simulation, can be shown to be superior.

Regards,  
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## References

1. Chan, D. L., Fritz, D., Nessler, T., Santoy, L., Peterson, W., & Reade, M. (2023). Autologous fresh whole blood transfusion training-a narrative review and report of US Military experience. *Journal of Military and Veterans Health*, 31(3), 18-24.
2. Linden, J. V., Wagner, K., Voytovich, A. E., & Sheehan, J. (2000). Transfusion errors in New York State: an analysis of 10 years' experience. *Transfusion*, 40(10), 1207-1213.