

# Post-Transfusion Purpura (PTP) n=1

# 22

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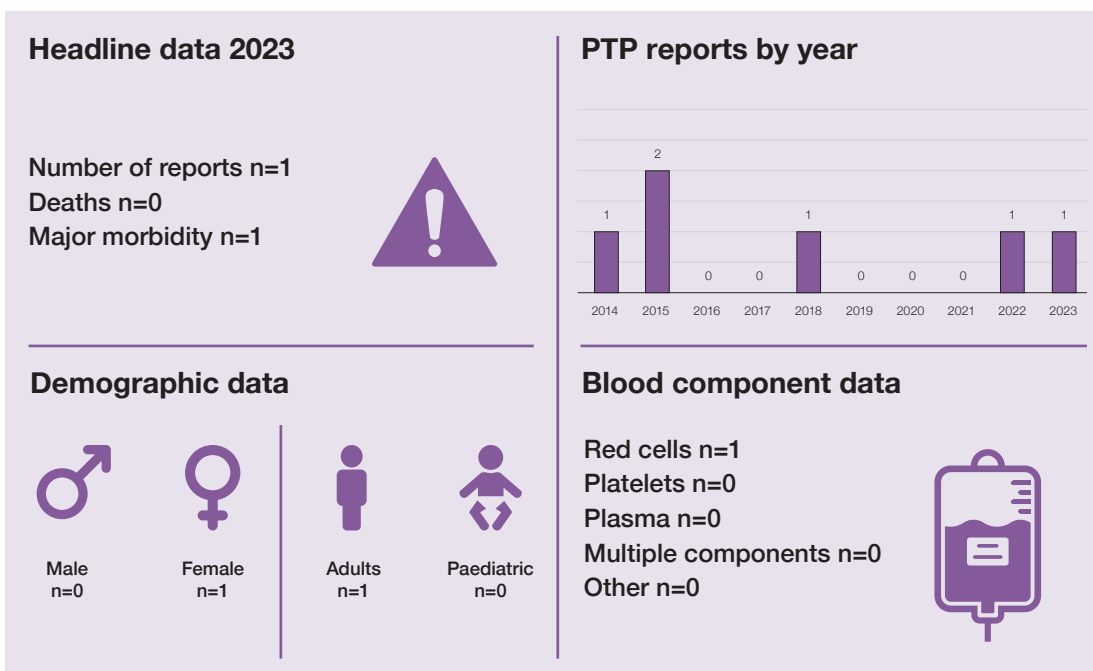
## Definition:

Post-transfusion purpura is defined as thrombocytopenia arising 5-12 days following transfusion of cellular blood components (red cells or platelets) associated with the presence in the patient of antibodies directed against the HPA (human platelet antigen) systems.

## Abbreviations used in this chapter

**ED** Emergency department  
**HPA** Human platelet antigen

**IVIg** Intravenous immunoglobulin  
**PTP** Post-transfusion purpura



## Introduction

There was 1 case of PTP reported in 2023.

## Deaths related to transfusion n=0

There were no deaths reported in this category in 2023.

## Major morbidity n=1

### Case 22.1: Post-transfusion purpura with HPA-1a antibody

A patient received one unit of red cells post-delivery. She presented to the ED 18 days later with widespread petechiae and a platelet count of  $3 \times 10^9/L$ . HPA-5b antibodies were found in her plasma. IVIg was administered and she made a complete recovery.

The history and response to treatment is typical of PTP although the delay following transfusion is unusual. Most cases present around 5-7 days after transfusion. Antibody-mediated PTP remains the most likely explanation here, in the absence of any other reasons for severe thrombocytopenia. Anti-HPA antibodies often increase in the weeks following delivery and it is possible that the delayed response may represent a primary sensitisation due to the recent pregnancy rather than a pre-existing HPA antibodies.

## Conclusion

PTP has become extremely rare since the introduction of universal leucodepletion. There have been 10 cases reported to SHOT over the last 11 years including this case. It remains an important diagnosis to be aware of since it is readily treatable by IVIg and has implications for avoidance of further transfusion in the recipient. Avoiding unnecessary transfusions, monitoring patients for delayed reactions and educating patients about these potential risks are vital (Narayan, et al., 2021).



## Recommended resource

### SHOT Bite No.30: Post-transfusion purpura

<https://www.shotuk.org/resources/current-resources/shot-bites/>

## Reference

Narayan, S., Poles, D. & Latham, T., 2021. Post-transfusion purpura - Insights from SHOT UK. *Vox Sanguinis*, 116(S1), pp. 95-96. doi: <https://doi.org/10.1111/vox.13117>.

