

TRANSFUSION TRANSMITTED INJURIES SURVEILLANCE SYSTEM, 2022: INFOGRAPHIC

HIGHLIGHTS

The Transfusion Transmitted Injuries Surveillance System (TTISS) network monitors over 95% of transfusion activities in Canadian hospitals. The 2022 data are summarized below:

- A total of 866 blood recipients resulted in adverse transfusion reactions (ATRs)¹
- **68.5% (n=593/866) were related to blood components and 31.5% (n=273/866) were caused by plasma derivatives.**
- **9.5% (n=82/866) of ATRs were definitely and 90.5% (n=784/866) were probably or possibly related to transfusions.**
- **7.2% (n=62/866) of ATRs resulted in grade 3 (life threatening) injuries.**
- **1.4% (n=12/866) of ATRs resulted in transfusion related deaths.**
- **6 deaths** reported per million units of blood components transfused

ATRs BY TYPE



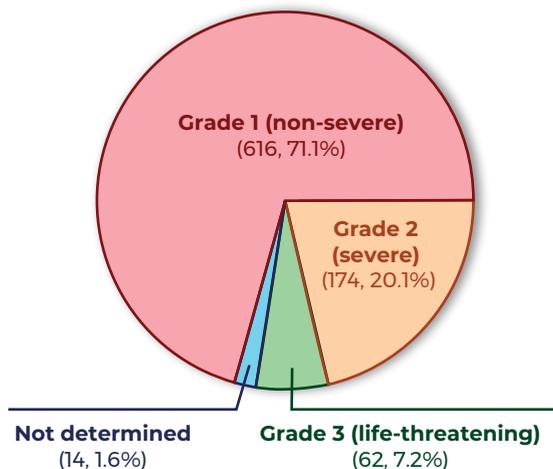
ATRs with few cases are not shown here, i.e., ASPT (0.6%), BACT (0.9%), and Unknown (2.5%).

* "Other" indicates ATRs with too few occurrences, are not classified, or not listed in the User's Manual. These events may include severe electrolyte imbalance, atypical pain syndrome, malaria (*P. Falciparum*, *P. Vivax*, *babesiosis*), Lyme disease, syphilis, toxoplasmosis, Creutzfeldt-Jacob Disease, etc.

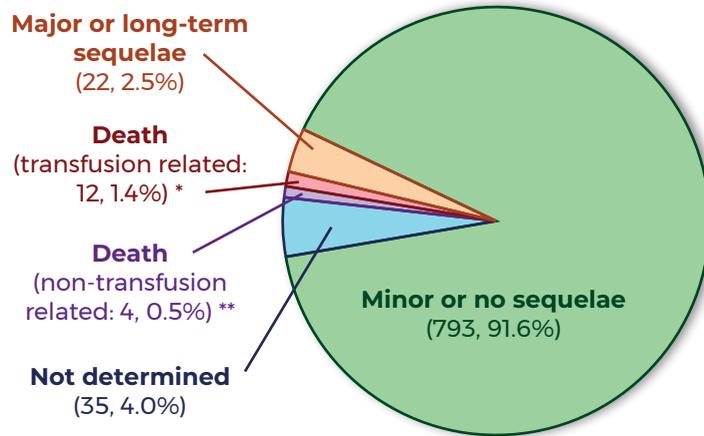
ABBREVIATIONS

AHR	Acute Haemolytic Reaction
ASPT	Aseptic Meningitis
BACT	Bacterial Infection
DHR	Delayed Haemolytic Reaction
HYPT	Hypotensive Reaction
IVIG-HD	Intravenous Immune Globulin Headache
SAAR	Severe Anaphylactic or Anaphylactoid Reaction
TACO	Transfusion-Associated Circulatory Overload
TAD	Transfusion-Associated Dyspnea
TRALI	Transfusion-Related Acute Lung Injury

ATRs BY SEVERITY²



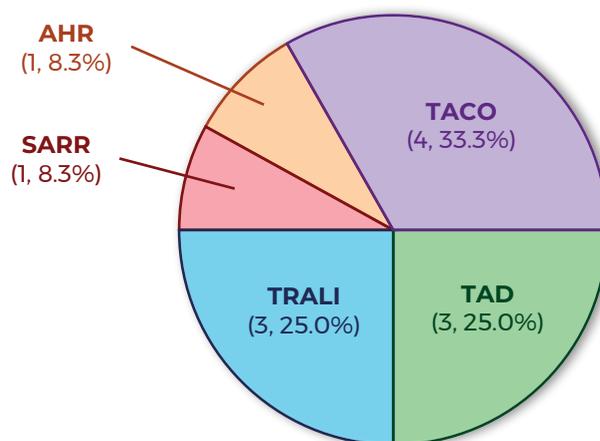
ATRs BY OUTCOME



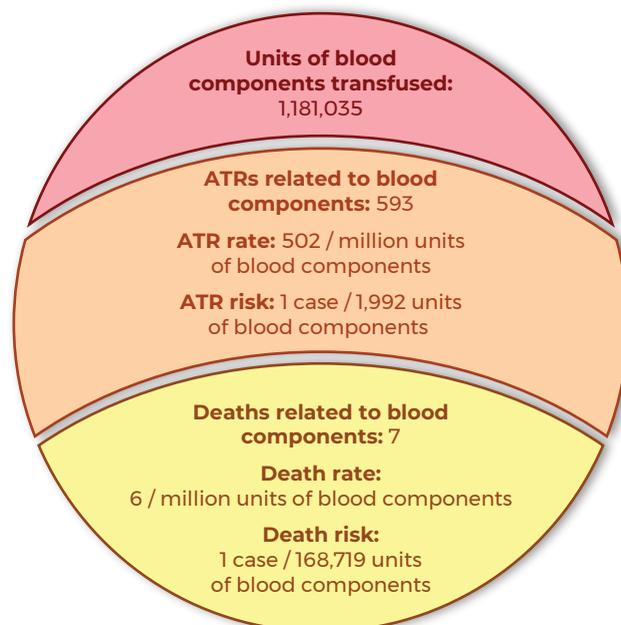
* Definite, probable, or possible

** Doubtful, ruled out, or not determined

DEATHS RELATED TO ATRs



ATR AND DEATH RATE PER MILLION UNITS OF BLOOD COMPONENTS TRANSFUSED



CONCLUSION

The proportions of ATR types are consistent with results from previous years. Additionally, while TACO is the leading cause of death, the overall fatality risk in comparison to the total number of transfusions is still very low in Canada.

REFERENCES

- 1 Transfusion Transmitted Injuries Surveillance System, User's manual version 3.0 (PDF) <https://ttiss.mcmaster.ca/wp-content/uploads/2016/10/Current-V3-CTAERF-Manual-E-2008-04-15.pdf>
- 2 Please refer to the Transfusion Transmitted Injuries Surveillance System 2016 - 2020 Summary Report for the definitions of "severity", "outcome", and "related death", as well as descriptions of the types of ATEs and results from previous years. <https://www.canada.ca/en/public-health/services/publications/drugs-health-products/transfusion-transmitted-injuries-surveillance-system-summary-report-2016-2020.html>