

ICTMG Activity Report

2024 – 2025

Prepared by the ICTMG Secretariat

2025-05-13

2024-2025 Success at a glance

- ✓ **107** individuals from **26** countries engaged in ICTMG activities as Full or Project members
- ✓ **Publication** of the updated Hemoglobinopathies guideline
- ✓ **In press** the Platelet systematic review for publication
- ✓ **In press** the AABB/ICTMG Platelet guidelines for publication
- ✓ Completion of **3** webinars and **1** podcast for the dissemination of the Albumin Guideline
- ✓ **Publication** of road-map for implementation of guidelines
- ✓ Launch of the FNAIT guideline update
- ✓ Start of systematic review of randomised trials of plasma

ICTMG membership

107 individual members including **26** Full members and **81** Project members representing **20** countries from **6** regions.

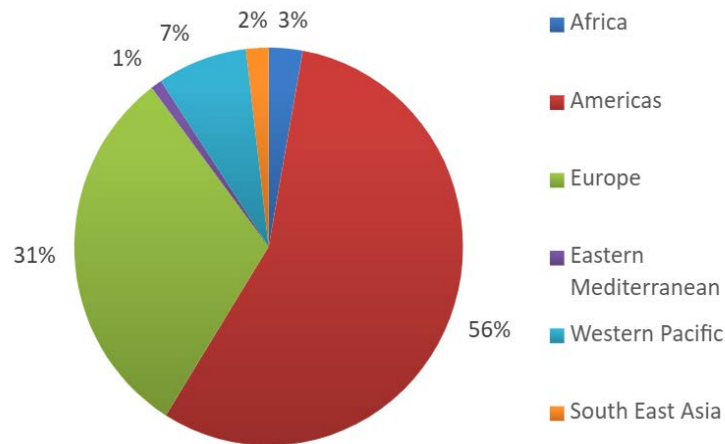
Geographical representation

- ✓ Most members (98/107) are from **high resource countries**, while 5 are from upper medium and 4 are from low medium/low resource countries.
- ✓ Most members are from the **Americas** (60/107; Canada, United States, Brazil) followed by **Europe** (33/107; Albania, Denmark, France, Germany, Italy, Macedonia, Netherlands, Romania, Spain, United Kingdom), **West Pacific** (8/107; Australia, Japan, South Korea), **Africa** (3/107; Nigeria, South Africa) and **Southeast Asian** (2/107; India)

Engagement

- ✓ A full membership meeting was not held during this time. Communication to the membership was maintained through 2 newsletters and multiple emails.
- ✓ 1 ICTMG member stepped down and 15 new project members joined.

Regional representation



Implementation of albumin guideline

Research implementation project

Project initiated in 2022 with Justin Presseau (Canada) & Fabiana Lorencatto (UK) as leads and with funding from Canadian Blood Services. Jacob Crawshaw joined the project as a senior methodologist in 2023.

- **Activity 1:** A Canadian survey on hospital use of Albumin was initiated to identify barriers and facilitators to implementation.
- **Activity 2:** An environmental scan of ICTMG's past and ongoing dissemination and implementation strategies/interventions was completed and will inform ICTMG's Dissemination and Implementation (D&I) practices going forward.

Manuscript published in Transfusion:

- Crawshaw J, Callum J, Chargé S, Lorencatto F, Presseau J, Raza S, Relke N, Wolfe A, Stanworth S. How do we leverage implementation science to support and accelerate uptake of clinical practice guidelines in transfusion medicine. Transfusion (March 2025). doi: 10.1111/trf.18234

Use of Albumin: Dissemination

ICTMG knowledge mobilization project

The Project group held its launch meeting on Sept. 18, 2024. A knowledge mobilization plan was developed and execution of the identified outputs was completed and/or in-progress.

Knowledge Mobilization Project outputs:

- ✓ 4 Endorsements by 3rd party organizations & additional dissemination support
- ✓ Canadian Blood Services Breakthroughs in Blood Webinar on Use of Albumin
- ✓ Critical Matters podcast
- ✓ ISBT Journal Club webcast
- ✓ Article in Ontario Regional Blood Coordinating Office (ORBCon) Report
- ✓ Poster presentation at 2024 ISBT Barcelona
- ✓ Presentation at 2024 CHEST Boston
- ✓ Commentary published:
 - Relke N, Hewitt M, Rochweg B, Callum J. Use of albumin in critically ill patients. CHEST Physician Critical Care Commentary; July 2024.

The ICTMG website was updated with the project outputs.

One of the top three papers published in CHEST for the past 12 months.

Platelet transfusion guideline

Guideline development group
Co-Chairs

ICTMG Platelet systematic review

The sub-group completed the systematic review which is now in press.

AABB-ICTMG collaboration

AABB and ICTMG supported a hybrid face-to-face/virtual meeting in Bethesda in May 2024. The two-day meeting convened ICTMG and AABB members to review the evidence prepared by the ICTMG/AABB sub-group and develop guideline recommendations on the clinical uses of Platelets.

The clinical practice guideline was completed and is in press.

ICTMG Guideline Update

A number of clinical topics and 'laboratory' aspects of platelets e.g. processing, storage, transformations, and modifications (product characteristics), and matching (blood group, alloimmunization and Rh status of platelets), were not included as part of the guideline collaboration with AABB and ICTMG work will continue from 2025-26.



Susan Nahirniak
Canada



Simon Stanworth
UK

Platelet transfusion - Dissemination

AABB-ICTMG Platelet Guideline

Discussions on convening a Knowledge Mobilization Project group have been agreed and the project is expected to begin in June 2025 with the involvement of both AABB-ICTMG panel members.

Hemoglobinopathies matching guideline

Guideline development group
Co-Chairs

Hemoglobinopathies matching guideline update

The manuscript was published in the British Journal of Haematology.

- Wolf J, Blais-Normandin I, Bathla A, et. al. International Collaboration for Transfusion Medicine Guidelines (ICTMG). Red cell specifications for blood group matching in patients with haemoglobinopathies: An updated systematic review and clinical practice guideline from the International Collaboration for Transfusion Medicine Guidelines. Br J Haematol. 2025 Jan;206(1):94-108. Epub 2024 Nov 13.

The work will be presented at ISBT 2025

The ICTMG website was updated with the project outputs.



Julia Wolf
UK



Isabelle
Blais-Normandin
Canada

FNAIT guideline

Guideline development group
Co-Chairs

FNAIT Guideline Update

The project was launched in April 2023 with Dr. Lieberman appointed as co-chair, but the project was postponed until 2024.

The formation of the guideline development group (GDG) was completed with the appointment of Dr. Prakesh Shah as co-chair, with the invitation and appointment of previous guideline authors and the addition of more multidisciplinary members. The GDG held their first meeting on February 18, 2025:

- The anti-natal and post-natal PICO questions have been updated, and a third PICO on screening interventions has been added.
- An updated literature search addressing these PICOs will be completed in April of 2025.

This project will be a priority for 2025-26.



Lani Lieberman
Canada



Prakesh Shah
Canada

Hemolytic disease of the newborn: Dissemination

Project outputs

- ✓ The National Advisory Committee on Blood and Blood Products (Canada) has [endorsed the HDN guidelines with caveats.](#)

Partnered systematic reviews and guideline initiatives and international meetings

Collaborative efforts are aimed at preventing duplication of effort and better targeting the ICTMG resources on priority areas, as well as promoting ICTMG.

Neonatal Transfusion Network (NTN): 1 ICTMG member, Dr. Lani Lieberman, is representing ICTMG on the NTN guideline development group for red cell transfusion recommendations in preterm infants. **The guideline was published in JAMA Open in June 2024.**

Plasma: A systematic review of all randomised trials is on-going, updating a prior review (Yang L, Stanworth S, Hopewell S, Doree C, Murphy M. Is fresh-frozen plasma clinically effective? An update of a systematic review of randomized controlled trials. Transfusion. 2012 Aug;52(8):1673-86; quiz 1673). The intention is to use this evidence to inform an international guideline.

Committees

Executive Committee – Chair: Simon Stanworth (UK) and Vice Chair: Katerina Pavenski (Canada)

The Executive Committee met in January 2025 to discuss the implementation of the new governance structure for the ICTMG. By March 31, 2025, the new Executive Committee membership was successfully established. The focus of 2025-2026 will be on establishing the new committees, identifying committee membership, and scheduling committee meetings.

The Executive Committee identified priority areas for ICTMG and discussed renewing the memorandum of understanding with ISBT which is expected to be finalized early in 2025-2026.

Topics Committee – Co-Chairs: Katerina Pavenski (Canada) and Erica Wood (Australia)

The committee did not meet during this time. This committee was sunset on March 31, 2025, and the committee's responsibilities were distributed between the remaining committees.

Methods Committee – Co-Chairs: Dean Fergusson (Canada) and Simon Stanworth (UK)

The committee did not meet during this period and conducted business via email.

Editorial Committee – Co-Chairs: Mark Fung (US) and Zbigniew Szczepiorkowski (US)

The committee did not meet during this period and conducted business via email. The committee reviewed the Platelet guideline and the Platelet systematic review manuscript before submission. This committee was renamed Editorial & Dissemination Committee on March 31, 2025.

Dissemination & Implementation Committee – Co-Chairs: James Daly (Australia) & Cynthia So-Osman (Netherlands)

The committee did not meet during this time. This committee was sunset on March 31, 2025, and its responsibilities were combined with the Editorial Committee.

Secretariat

Supporting tools for the collaborative

- The Secretariat continues to leverage the MO365 products such as Forms and Project Lite, provided by Canadian Blood Services, to facilitate surveys, meetings, and project management.
- DistillerSR licenses were renewed to facilitate the systematic review process.
- RevMan web license was purchased to facilitate the systematic review process.
- The ICTMG website continues to be updated.

Supporting operations for the collaborative

- GDG and Committees meetings and activities continue to be supported and coordinated.
- Knowledge mobilization projects were initiated and continue to be supported and coordinated.

Appendix A: ICTMG dissemination products

Appendix B: Web metrics report 2024-2025



Appendix A: ICTMG dissemination products

Knowledge Dissemination Products

This document provides a list of knowledge dissemination products developed by the ICTMG since its inception in 2011. Most of these resources are shared on the ICTMG website at www.ictmg.org.

Guidelines and Systematic Reviews

2024



Wolf J, Blais-Normandin I, Bathla A, Keshavarz H, Chou ST, Al-Riyami AZ, Josephson CD, Massey E, Hume HA, Pendergrast J, Denomme G, Grubovic Rastvorceva RM, Trompeter S, Stanworth SJ; International Collaboration for Transfusion Medicine Guidelines (ICTMG). Red cell specifications for blood group matching in patients with haemoglobinopathies: An updated systematic review and clinical practice guideline from the International Collaboration for Transfusion Medicine Guidelines. *Br J Haematol*. 2025 Jan;206(1):94-108. doi: 10.1111/bjh.19837. Epub 2024 Nov 13. PMID: 39535318; PMCID: PMC11739758.

Callum J, Skubas NJ, Bathla A, Keshavarz H, Clark EG, Rochwerg B, Fergusson D, Arbous S, Bauer SR, China L, Fung M, Jug R, Neill M, Paine C, Pavenski K, Shah PS, Robinson S, Shan H, Szczepiorkowski ZM, Thevenot T, Wu B, Stanworth S, Shehata N, on behalf of the ICTMG Intravenous Albumin Guideline Group, Use of Intravenous Albumin: A Guideline from the International Collaboration for Transfusion Medicine Guidelines., *Chest*. 2024 Mar 4:S0012-3692(24)00285-X. Epub ahead of Print. PMID: 38447639. DOI: [10.1016/j.chest.2024.02.049](https://doi.org/10.1016/j.chest.2024.02.049)

2023

Skubas NJ, Callum J, Bathla A, Keshavarz H, Fergusson D, Wu B, Stanworth S, Shehata N; International Collaboration for Transfusion Medicine Guidelines. Intravenous albumin in cardiac and vascular surgery: a systematic review and meta-analysis. *Br J Anaesth*. 2023 Dec 14:S0007-0912(23)00630-X.

2022

Lieberman L, Lopriore E, Baker JM, Bercovitz RS, Christensen RD, Crichton G, Delaney M, Goel R, Hendrickson JE, Keir A, Landry D, La Rocca U, Lemyre B, Maier RF, Muñiz-Diaz E, Nahirniak S, New HV, Pavenski K, Pessoa dos Santos MC, Ramsey G, Shehata S. International guidelines regarding the role of IVIG in the management of Rh- and ABO-mediated haemolytic disease of the newborn. *Br J Haematol*: April 12, 2022.

Note: This publication was recognized as being ranked within the top 10% of papers published in the *British Journal of Haematology* from January to December 2022 based on total number of downloads.

2021

Al-Riyami AZ, Jug R, La Rocca U, Keshavarz H, Landry D, Shehata N, Stanworth SJ, Nahirniak S. Quality of Evidence-based Guidelines for Platelet Transfusion and Use: A Systematic Review. *Transfusion* 2021; 61: 948-958.

2020

Kjeldsen-Kragh J, Fergusson DA, Kjaer M, Lieberman L, Greinacher A, Murphy MF, *et al.* Fetal/neonatal alloimmune thrombocytopenia: a systematic review of impact of HLA-DRB3*01:01 on fetal/neonatal outcome. *Blood Adv* (2020) 4 (14): 3368–3377.

2019

Lieberman L, Greinacher A, Murphy MF, Bussel J, Bakchoul T, Corke S, *et al.* Fetal and neonatal alloimmune thrombocytopenia: recommendations for evidence-based practice, an international approach. *Br J Haematol* 2019, **185**(3): 549-562.

Kjaer M, Bertrand G, Bakchoul T, Massey E, Baker JM, Lieberman L, *et al.* Maternal HPA-1a antibody level and its role in predicting the severity of Fetal/Neonatal Alloimmune Thrombocytopenia: a systematic review. *Vox Sang* 2019, **114**(1): 79-94.

Baker JM, Shehata N, Bussel J, Murphy MF, Greinacher A, Bakchoul T, *et al.* Postnatal intervention for the treatment of FNAIT: a systematic review. *J Perinatol* 2019.

2018

Compennolle V, Chou ST, Tanael S, Savage W, Howard J, Josephson CD, *et al.* Red blood cell specifications for patients with hemoglobinopathies: a systematic review and guideline. *Transfusion* 2018, **58**(6): 1555-1566.

Pavenski K, Stanworth S, Fung M, Wood EM, Pink J, Murphy MF, *et al.* Quality of Evidence-Based Guidelines for Transfusion of Red Blood Cells and Plasma: A Systematic Review. *Transfus Med Rev* 2018.

2017

Winkelhorst D, Murphy MF, Greinacher A, Shehata N, Bakchoul T, Massey E, *et al.* Antenatal management in fetal and neonatal alloimmune thrombocytopenia: a systematic review. *Blood* 2017.

2015

Nahirniak S, Slichter SJ, Tanael S, Rebulla P, Pavenski K, Vassallo R, *et al.* Guidance on platelet transfusion for patients with hypoproliferative thrombocytopenia. *Transfus Med Rev* 2015, **29**(1): 3-13.

2014

Vassallo RR, Fung M, Rebulla P, Duquesnoy R, Saw CL, Slichter SJ, *et al.* Utility of cross-matched platelet transfusions in patients with hypoproliferative thrombocytopenia: a systematic review. *Transfusion* 2014, **54**(4): 1180-1191.

2013

Pavenski K, Rebulla P, Duquesnoy R, Saw CL, Slichter SJ, Tanael S, *et al.* Efficacy of HLA-matched platelet transfusions for patients with hypoproliferative thrombocytopenia: a systematic review. *Transfusion* 2013, **53**(10): 2230-2242.2015

Poster, Oral and Conference Presentations

2024

Cohn C., Stanworth S., Metcalf R., Pagano M. AABB RBC and Platelet International Guidelines: What is new: Liberally restrictive and restrictively liberal?, Education session at AABB Annual Conference October 2024.





Callum, J. Practice-changing research in critical care – Presented by CHEST Journal, Oral presentation at CHEST Annual Meeting, October 6 – 9, 2024.



Callum J. Use of Albumin: A Guideline from the International Collaboration for Transfusion Medicine Guidelines, Poster presentation at ISBT Annual Congress, June 24-27, 2024.

2023

Skubas NJ, Callum J, Bathla A, Keshavarz H, Fergusson D, Wu B, Stanworth S, Shehata N, Intravenous Albumin in Cardiac and Vascular Surgery: A systematic review and meta-analysis, Poster at Canadian Society of Transfusion Medicine congress, May 25-28, 2023.

2022

Al-Riyami A, Keshavarz H, Jug R, La Rocca U, Stanworth S, Nahrniak S, Platelet Transfusion in Cardiopulmonary Bypass Surgery: A Systematic Review, Poster at AABB , 2022, Virtual.

La Rocca U, Keshavarz H, Jug R, Al-Riyami A, Stanworth S, Desborough M, Nahrniak S, Impact of restrictive versus liberal red cell transfusion strategies on bleeding: An updated systematic review including randomized trials published between 2016 and 2021, Oral presentation at ISBT, 2022, Virtual.

Stanworth, SJ, Changing practice and guidelines, ICTMG and a recent BSH guideline on massive haemorrhage, Plenary Session Presentation, Canadian Society of Transfusion Medicine Conference, May, 2022.

Callum, J, ICTMG Intravenous Albumin Guidelines, Plenary Session Presentation, Canadian Society of Transfusion Medicine Conference, May, 2022

2021

Lieberman L, Lopriore E, Baker JM, Bercovitz RS, Christensen RD, Crighton G, Delaney M, Goel R, Hendrickson JE, Keir A, Landry D, La Rocca U, Lemyre B, Maier RF, Muniz Diaz E, Nahrniak S, New HV, Pavenski K, Pessoa dos Santos MC, Ramsey G, Shehata N. International Guidelines Regarding the Use of IVIG For the Management of Hemolytic Disease of the Newborn, Poster at AABB, 2021, Virtual.

2020

Al Riyami A, Platelet transfusion guidelines: A systematic review of quality with an assessment of use in hospitals, Poster at ISBT Annual Congress, 2020, Virtual.

2019

Kjeldsen-Kragh J, Fergusson DA, Kjaer M, Lieberman L, Greniacher A, Murphy MF, *et al.* Fetal and neonatal alloimmune thrombocytopenia: A systematic review and meta-analysis of the impact of HLA-DRB3*01:01 on neonatal outcome in HPA-1a immunized women, Transfusion 2019, 59(S3): 131A. Poster at AABB, 2019, San Antonio, US.

Shehata N, Kaufman RM, So-Osman C. Evidence based guidelines: Toward Optimizing and Standardizing Transfusion Care. Educational program at AABB, 2019, San Antonio, US.

2018

Baker JS, N.; Murphy, M.; Greinacher, A.; Bakchoul, T.; Massey, E.; Lieberman, L.; Landry, D.; Tanael, S.; Arnold, D.; Baidya, S.; Bertrand, G.; Bussel, J.; Kjaer, M.; Kaplan, C.; Kjeldsen-Kragh, J.; Oepkes, D.; Savoia, H.; Ryan, G.; Hume, H. Postnatal intervention for the treatment of FNAIT: A

systematic review. *35th International Congress of the International Society of Blood Transfusion*. Toronto, Canada: Vox Sanguinis; 2018. p. 284.

Fung MH, H.; Pavenski, K.; Nahirniak, S.; Kaufman, R.; Viner, T.; Torrance, S.; Landry, D.; Shehata, N. The experience of the International Collaboration for Transfusion Medicine Guidelines (ICTMG) in guideline dissemination. *35th International Congress of the International Society of Blood Transfusion*. Toronto, Canada: Vox Sanguinis; 2018. p. 77.

Lieberman LG, A.; Murphy, M.F.; Bakchoul, T.; Corke, S.; Tanael, S.; Kjaer, M.; Kjeldsen-Kragh, J.; Bertrand, G.; Oepkes, D.; Baker, J.M.; Hume, H.; Massey, E.; Bussel, J.B.; Kaplan, C.; Arnold, D.M.; Baidya, S.; Ryan, G.; Savoia, H.; Landry, D.; Shehata, N. Fetal-Neonatal Alloimmune Thrombocytopenia (FNAIT): Guidance to Reduce the Risk of Intracranial Bleeding. *60th American Society of Hematology Annual Meeting and Exposition*. San Diego, US: Blood; 2018. p. 4717.

2017

Compernelle VC, S.; Tanael, S.; Savage, W.; Howard, J.; Josephson, C.; Odame, I.; Hogan, C.; Denomme, G.; Shehata, N. Red cell specifications for patients with hemoglobinopathies: A systematic review and guideline. . *27th Regional Congress of the International Society of Blood Transfusion*. Copenhagen, Denmark: Vox Sanguinis; 2017. p. 266.

Kjaer MB, G.; Bakchoul, T.; Massey, E.; Baker, J.; Lieberman, L.; Tanael, S.; Greinacher, A.; Murphy, M.; Arnold, D.; Baidya, S.; Bussel, J.; Kaplan, C.; Hume, H.; Oepkes, D.; Ryan, G.; Savoia, H.; Shehata, N.; Kjeldsen-Kragh, J.;. The detection of maternal HPA-1a antibodies and their role in predicting the severity of FNAIT: A systematic review. *27th Regional Congress of the International Society of Blood Transfusion*. Copenhagen, Denmark: Vox Sanguinis; 2017. p. 237.

Pavenski KS, S.; Tanael, S.; Hume, H.; Nahirniak, S.; Webert, K.; Landry, D.; Shehata, N. Quality of evidence based guidelines for transfusion of red blood cells and plasma: A systematic review. *27th Regional Congress of the International Society of Blood Transfusion*. Copenhagen, Denmark: Vox Sanguinis; 2017. pp. 259-260.

2016

Lieberman LM, M.; Bussel, J.; Oepkes, D.; Bakchoul, T.; Kjeldsen-Kragh, J. An Evidence Based/Consensus Guideline from the International Collaboration for Transfusion Medicine Guidelines (ICTMG): Management Strategies for Fetal and Neonatal Alloimmune Thrombocytopenia. AABB; 2016; Orlando, US; 2016.

Podcasts and Webinars

2024

Callum J. Albumin in Critical Care, Critical Matters, Sound Physicians podcast, September 30, 2024.

Raza S. The International Collaboration for Transfusion Medicine Guidelines' (ICTMG) Use of Intravenous Albumin guideline: Moving evidence into practice, Canadian Blood Service Breakthroughs in Blood: Advancing practice through research webinar, September 6, 2024.

Raza S, Callum J. The 2024 Guideline on Use of Intravenous Albumin from the International Collaboration for Transfusion Medicine Guidelines (ICTMG), ISBT Journal Club, July 17, 2024.

2023



Lorencatto F, Presseau J, Behaviour Change Approaches to Implementation Science in Transfusion Medicine, University of Toronto Monthly Transfusion Rounds, Feb. 23, 2023.

2021

Al-Riyami A., La Rocca U, Jug R., Stanworth S. Which platelet guideline should I use. ISBT Journal Club. December 14, 2021.

2020

Jug R, Al Riyami AZ, *et al.*, ICTMG Red cell specifications for patients with hemoglobinopathies guidelines. ISBT Journal Club. October 28, 2020.

2017

Yan MA, S.; Denomme, G.; Chou, S.; Shehata, N. The best match: transfusing patients with hemoglobinopathies.

Arnold DO, D.; Wells, R., Shehata, N. FNAIT for physicians.

Lieberman LM, M.; Kjeldsen-Kragh, J.; Bloom, S.; Khan, F.; Viner, T.; Landry, D.; Shehata, N. FNAIT - Questions and Answers for Patients.

2016

Nahirniak SK, R.; Wells, R.; Shehata, N. Platelets Unplugged: The sticky truth.

Patient Pamphlet

2023

ICTMG, "Hemolytic disease of the newborn (HDN): ABO incompatibility", www.ictmg.org/hdn (updated March 2023)." English patient pamphlets developed with permission from the Hospital for Sick Children, and adapted by ICTMG members into additional languages.

ICTMG, "Enfermedad hemolítica del feto y del recién nacido (EHFRN): incompatibilidad ABO", www.ictmg.org/hdn (updated July 2023)

ICTMG, "Hämolytische Erkrankung des Neugeborenen (Morbus haemolyticus neonatorum; MHN): ABO-Unverträglichkeit", www.ictmg.org/hdn (updated Aug 2023)

ICTMG, "La maladie hémolytique du nouveau-né (incompatibilité ABO)", www.ictmg.org/hdn (updated Sept 2023).

ICTMG, "Malattia emolitica del neonato (MEN): incompatibilità ABO", www.ictmg.org/hdn (updated Oct. 2023)

ICTMG, "Doença hemolítica do recém-nascido (DHRN): incompatibilidade ABO", www.ictmg.org/hdn (updated Nov. 2023)

ICTMG, " Hemolytic disease of the newborn (HDN): Rhesus (Rh) and other non-ABO antibodies", www.ictmg.org/hdn (updated March 2023)." English patient pamphlets developed with permission from the Hospital for Sick Children, and adapted by ICTMG members into additional languages.

ICTMG, "Enfermedad hemolítica del recién nacido (HDN): enfermedad de Rhesus (Rh) y otros anticuerpos no-ABO", www.ictmg.org/hdn (Updated Jul 2023)

ICTMG, “Hämolytische Erkrankung des Neugeborenen (Morbus haemolyticus neonatorum; MHN) durch Rhesus (Rh)-Antikörper und andere Nicht-ABO-Antikörper”, www.ictmg.org/hdn (Updated Aug 2023)

ICTMG, “La maladie hémolytique du nouveau-né (immunisation antirhésus et anticorps non ABO)”, www.ictmg.org/hdn (updated Sept 2023).

ICTMG, “Malattia emolitica del neonato (HDN): malattia di Rhesus (Rh) e MEN da altri anticorpi non-ABO”, www.ictmg.org/hdn (updated Oct 2023)

ICTMG, “Doença hemolítica do recém-nascido (DHRN): doença por Rhesus (Rh) e outros anticorpos não-ABO”, www.ictmg.org/hdn (updated Nov 2023)

2019

Guidelines ICTMG. Fetal and Neonatal Alloimmune Thrombocytopenia Patient Information. www.ictmg.org/fnait-1. (March 2019)

Other Publications (e.g., Blogs, Magazine & Newsletter Articles)

2025



Crawshaw J, Callum J, Chargé S, Lorencatto F, Presseau J, Raza S, Relke N, Wolfe A, Stanworth S. [How do we leverage implementation science to support and accelerate uptake of clinical practice guidelines in transfusion medicine](#). Transfusion (March 2025). doi: 10.1111/trf.18234

2024



Wolfe A. Intravenous Albumin: Is it time to consider de-prescribing efforts. The ORBCoN Report. Newsletter; October 2024.



Relke N, Hewitt M, Rochweg B, Callum J. [Use of albumin in critically ill patients](#). CHEST Physician Critical Care Commentary; July 2024.



Wolfe A. Canadian Blood Services supports development of updated clinical guideline on transfusion for hemoglobinopathies. Canadian Blood Services Research.Education.Discovery. Blog; June 7, 2024.

2023

The American Society of Pediatric Hematology/Oncology (ASPHO), “ICTMG Hemolytic disease of the newborn (HDN) guideline endorsement”, <http://aspho.org/knowledge-center/practice-and-quality> (Updated August 2023) (English)

The Spanish Society of Blood Transfusion (SETS), “ICTMG Hemolytic disease of the newborn (HDN) guideline endorsement”, - <https://sets.es/index.php/area-cientifica/guias-y-publicaciones> (Updated March 2023) (Spanish)

The Italian Society of Transfusion Medicine and Immunohematology (SIMTI), “ICTMG Hemolytic disease of the newborn (HDN) guideline endorsement”, <https://www.simti.it/2023/03/31/international-guidelines-regarding-the-role-of-ivig-in-the-management-of-rh-and-abo-mediated-haemolytic-disease-of-the-newborn/> (Updated March 2023) (Italian)

Hemolytic disease of the newborn (HDN): IVIG in the management of Rh- and ABO-mediated HDN. Resource for Physicians (PowerPoint) www.ictmg.org/hdn. (August 2023) (English)

2022

Anonymous, Research in Brief: Expert panel develops guidelines for intravenous immunoglobulin (IVIG) use in Neonates with RhD or ABO-mediated Hemolytic Disease. ABC Newsletter 2022 April 22: 3

2021

Abe, T. Improving platelet transfusion practice: examining the quality of guidelines. Canadian Blood Services Research.Education.Discovery. Blog; March 26, 2021.

Chargé S, Shehata N, White J, Hume H. Applicability of international guidelines for red cell specifications for use in low-resource settings [P-007]; Vox Sang. 2021;116(Suppl. 1):18–19.

2020

Shehata N. BSH guidelines for the use of irradiated blood components: guidance that is needed. Br J Haematol. 2020 Nov 5.

Gammon R, Red Blood Cell Guidelines for Hemoglobinopathies, ABC Newsletter. 2020 Feb. 2020:3-4. (Unsolicited).

2019

Lieberman LL, D.; Shehata, N. FNAIT Guidelines. Transfusion Today. 2019 March 2019:26-27.

Landry D. International effort leads to better clinical guidelines for a serious illness affecting fetuses and newborns. *Canadian Blood Services Research. Education. Discovery. Blog*; June 20, 2019.

Anonymous. Recent Reviews. ABC Newsletter. 2019.

2017

Ryan J. International experts seek safest treatment for FNAIT. *Canadian Blood Services Research. Education. Discovery. Blog*; June 27, 2017.



New for the fiscal year of April 1, 2024 – March 31, 2025.



Appendix B: Web metrics report 2023-2024



ICTMG.org Website

Reporting Period: April 1, 2024 - March 31, 2025

The ICTMG website is the dissemination tool for the ICTMG guidelines, systematic reviews and supporting resources. The ICTMG website is published only in English.

From April 1, 2024 to March 31 2025, no new webpages were added to the ICTMG website. Guidelines', Project, and News pages were updated with information about endorsements, projects, presentations, etc. on an as needed basis.

Reporting Summary

There were 4,319 sessions (45.37% increase from last year) engaging 2,918 users (compared with 1,750 last year which represents a 66.74% increase). The majority of the sessions were started through accessing the site directly (1,221 users), through organic search (1,047 users) or through referral (677 users) with a small number through social media (22 users). ISBTweb.org (200 users) and transfusionontario.ca (94 users) were the two top sites referring users to the ICTMG website during this time period.

Canada saw a significant increase of users (↑397) during the reporting period with the United States and Australia also seeing a significant increase in users (↑297 and ↑217). Spain, Germany and Italy saw a decrease in users during the reporting period. Canada remains the country with the highest number of sessions.

The number of plays for the hemoglobinopathies podcast was removed from this year's report since this content is considered out of date with the publication of the updated guideline and systematic review in January 2025.

The number of pages per user remained unchanged from last year at 5.5 pages/per user.

Based on the number of downloads, FNAIT guideline content continues to be the most downloaded content followed by Platelets and Hemoglobinopathies. This is expected to change as new content is being developed by the Knowledge Mobilization projects for Albumin and for Platelets.

For the second year in a row, we have also seen a decrease in the the number of large spikes in traffic due to bot traffic since the switch over to Google Analytics 4.

Table 1: Behaviour Reports	May - Mar. 2022-2023	Apr. - Mar. 2023-2024	Apr. - Mar. 2024-2025
Basic metrics			
Page Views	9215	9626	11776
Average Time on Page (s)	0:53	0:55	0:41
Users (full site)	1903	1751	2918
Sessions (full site)	2896	2971	4319
Pages/user (full site)	4.84	5.5	5.5

Table 2: Views by country (sessions for the top 10 countries are shown)

Country	2022-2023*		2023-2024		2024-2025	
	Sessions	% of Total	Sessions	% of Total	Sessions	% of Total
Canada	842	35.38	805	27.10	1286	29.78
United States	331	13.91	393	13.23	592	13.71
Australia	68	2.86	48	1.62	329	7.62
United Kingdom	183	7.69	212	7.14	164	3.80
India	90	3.78	81	2.73	181	4.19
Brazil					120	2.78
Egypt					61	1.41
China					59	1.37
Spain	63	2.65	190	6.40	53	1.23
Japan					40	0.93

*Data set is incomplete. May 5, 2022 - March 31, 2023

Canada has remained the number one country accessing the ICTMG.org website since tracking of website traffic began in 2018. Egypt appeared in the top 10 for the first time. Argentina, Italy, Germany and Mexico dropped out of the top 10 to be replaced by China, Brazil, Egypt and Japan.

In 2023-2024, Argentina and Mexico appeared in the top 10 for the first time replacing Jordan and Malaysia who dropped out. In 2022 - 2023, China, Netherlands and France dropped out of the top 10 to be replaced by Jordan, Malaysia and Germany.

Table 3: Devices Overview

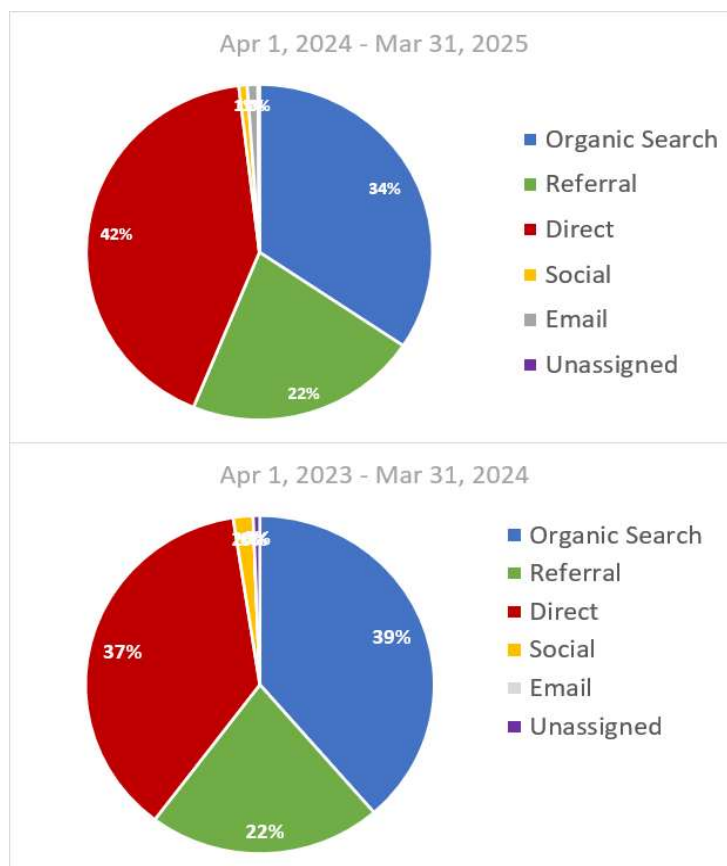
Device	2022-2023*	2023-2024	2024-2025
	Sessions (%)	Sessions (%)	Sessions (%)
Desktop	74.03	83.99	79.84
Mobile	24.41	15.44	19.61
Tablet	1.43	0.57	0.55

*Data set is incomplete May 5, 2022 - March 31, 2023

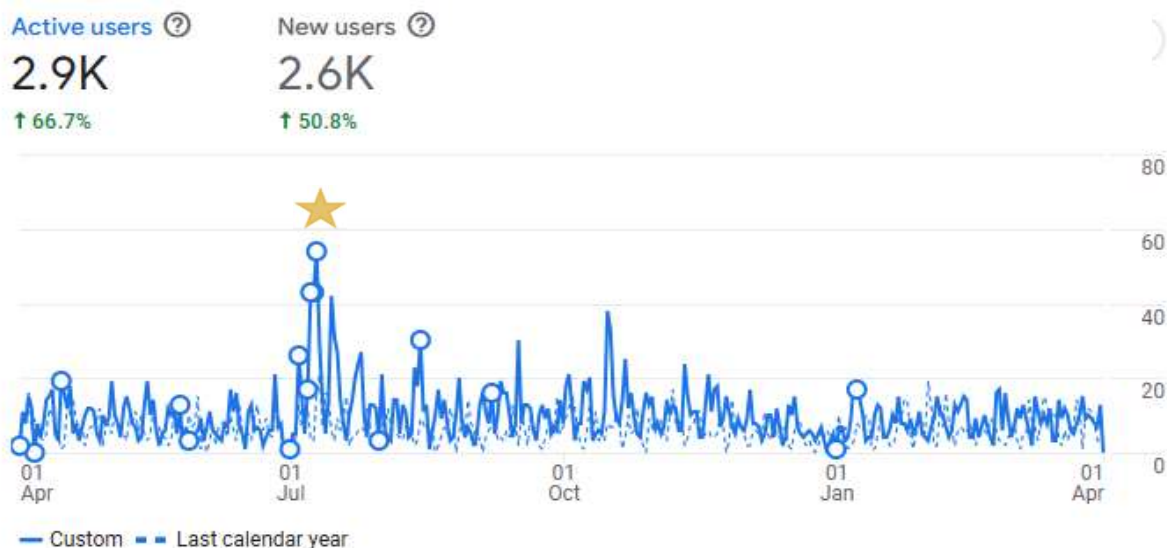
Table 4: Page Visits

	Page Views	% of total	2024-2025 Downloads
Home page	3755	31.89	n/a
Intravenous albumin ICTMG	3263	27.71	n/a
FNAIT ICTMG	728	6.18	195
Platelets ICTMG	727	6.17	159
Hemoglobinopathies ICTMG	591	5.02	123
About ICTMG ICTMG	538	4.57	36
HDN ICTMG	534	4.53	103
ICTMG full members ICTMG	373	3.17	n/a
Guideline support	222	1.89	n/a
ICTMG membership ICTMG	214	1.82	n/a
Other publications ICTMG	179	1.52	n/a
News and Events ICTMG	166	1.41	1
ICTMG projects ICTMG	138	1.17	n/a
Career Opportunities ICTMG	99	0.84	n/a
Endorsements ICTMG	89	0.76	n/a
ICTMG topic suggestions ICTMG	53	0.45	4
Privacy ICMTG	14	0.12	n/a
Disclaimers ICTMG	10	0.08	n/a
(not set)	7	0.06	n/a

In the last 2 years, traffic to the website originated mostly via direct link or organic search.



Comparison of 2024-2025 User traffic to 2023-2024



★ ISBT Journal Club on Intravenous Albumin guideline.

Table 5: User source (Top 10 shown)

Source	2023-2024		2024-2025	
	Active Users	Engaged Sessions	Active Users	Engaged Sessions
direct	702	844	1221	1265
google	586	804	875	1166
isbtweb.org	76	88	200	219
bing	59	158	136	197
transfusionontario.org			94	106
professionaleducation.blood.ca	52	70	66	73
(not set)	18	0	65	29
www1.surgelearning.ca			58	64
sets.es	182	234	50	53
profedu.blood.ca			32	53

Most users are accessing the site directly or through a Google search. ISBT website, transfusionontario.org, and the Canadian Blood Services Professional Education website also drove traffic to the ICTMG website in 2024-2025.

Glossary

Pageviews: The number of webpages that were loaded.

Engaged Sessions: The number of sessions that lasted longer than 10 seconds, or had a conversion event, or had 2 or more screen or page views.