



University of Toronto Transfusion Camp

2022-2023

Participating universities

Alberta: University of Alberta, University of Calgary

British Columbia: University of British Columbia

Manitoba: University of Manitoba

Nova Scotia: Dalhousie University

Ontario: University of Toronto, University of Ottawa, McMaster University, Queen's University, Northern Ontario School of Medicine, Western University

Québec: McGill University, Université Laval, Université de Montréal, Université de Sherbrooke

Saskatchewan: University of Saskatchewan

International: Guys Hospital & St. Thomas Hospital (U.K.), University Hospitals Birmingham NHS Foundation Trust (U.K.), University of Oxford (U.K.)

TARGET AUDIENCE

Trainees, ideally PGY2 or higher, from participating universities and registered in non-hematology specialty adult or pediatric programs including pediatric or adult programs in Anesthesia, Critical Care Medicine, Oncology, Obstetrics, Pathology, Clinical Pathology, General Internal Medicine, General Surgery, Trauma, and Emergency Medicine. Hematology and Hematopathology residents are also welcome to attend.

University programs interested in participating in Transfusion Camp must contact organizers (transfusioncamp@blood.ca) to review the requirements for participation and for onboarding. New university programs are preferably onboarded in the Spring or Summer for trainees to join Transfusion Camp in the Fall for Day 1.

ATTENDEE EXPECTATIONS

PARTICIPATION

1. Complete pre- and post-Transfusion Camp tests.
2. Attend all sessions.
3. Actively participate during lectures.
4. Actively participate in team-based learning seminars.
5. Refrain from excessive use of interruption devices (mobile phones).
6. Arrange not to be on call the night before.
7. Complete feedback surveys.

COST

Free for Canadian University trainees.

REGISTRATION

1. Register by contacting your university program director. Depending on location, there may be a maximum number of local attendees allowed.
2. Trainees must have their university program director's approval to participate.
3. In addition to access to the course and course portal, registration may also provide appropriate refreshments at breaks, depending on location and circumstances.

COURSE INFORMATION

FORMAT

- Content is delivered over 4 days (see schedule below) from September to March.
- Each day includes lectures and team-based learning seminars.
- Trainees attend lectures in groups either “live” (in Toronto) or “live” remotely (via webcast) or “post-live” (recorded lectures) depending on local preferences and circumstances.
- Trainees attend team-based learning seminars in groups in person at their local sites or virtually, depending on local preferences and circumstances.

LOCATIONS

Locations for trainees to attend the course will depend on the format chosen by their university program. The university program administrator will communicate to their trainees about the chosen format (live, live remotely or post-live) and the locations and dates for the events. The trainee Transfusion Camp Course portal (hosted at <https://profedu.blood.ca>) also provides the Course dates and locations for all participating university programs.

MATERIAL & CERTIFICATION

Trainees will be provided with:

1. Access to a Course portal for resources: including course program and schedule; pre-reading materials; lectures’ slide presentations, recordings and highlights; seminars’ case studies and moderator guide.
2. Depending on the university program, a Certificate of Completion of Transfusion Medicine Camp with attendance, and pre-test and post-test scores may be issued. To obtain a certificate, trainees must attend 3 of 4 days and complete the post-test exam.

COURSE PROGRAM & SCHEDULE FOR “LIVE” ATTENDANCE 2022-2023 CURRICULUM

DAY 1> BLOOD COMPONENTS & PRODUCTS INDICATIONS – September 16, 2022

Start time (EST)

	On Your Own	Pre-Course Exam provided via email and administered via online survey tool (30 minutes)
9:00	Dr. Jeannie Callum	Red Cell Transfusion (45 minutes)
9:45	Dr. Katerina Pavenski	Platelet Transfusion (45 minutes)
10:30	Dr. Yulia Lin	Basic Blood Bank Testing (30 minutes)
11:00		Break (15 minutes)
11:15	Facilitated Seminar 1A	RBC & Platelet Transfusion Cases, developed by Dr. Shuoyan Ning (75 minutes)
12:30		Lunch (45 minutes)
13:15	Dr. Justyna Bartoszko	Albumin (30 minutes)
13:45	Dr. Aditi Khandelwal	Plasma, PCC & Fibrinogen replacement (60 minutes)
14:45		Break (15 minutes)
15:00	Facilitated Seminar 1B	Plasma, PCC & Fibrinogen Cases, developed by Dr. Aditi Khandelwal (75 minutes)

Day 1 will cover the following objectives

INDICATIONS FOR BLOOD TRANSFUSION

1. Appropriately prescribe components (RBC, plasma, platelets, and fibrinogen replacement)
2. Appropriately prescribe plasma protein products (albumin, coagulation factor concentrates)
3. Have a reasonable approach to the correction of coagulation prior to procedures
4. Know when to order irradiated blood components

BLOOD BANK TESTING

5. Summarize basics about blood bank tests and pre-transfusion compatibility testing
6. Explain the implications of a positive antibody screen
7. Know when to screen patients for platelet alloimmunization

OPTIONAL LECTURES TO VIEW ON YOUR OWN:

- Dr. Nadine Shehata* Alloimmunization & Anemia in Pregnancy (45 minutes)
Dr. Lani Lieberman Neonatal & Pediatric Transfusion (30 minutes)

Optional lectures will be available on the Course Portal (hosted at <https://profedu.blood.ca>).

DAY 2> TRANSFUSION REACTIONS & SICKLE CELL DISEASE – November 18, 2022**Start time (EST)**

9:00	Dr. Zeller / Dr. Latour	Canadian Blood Services / Héma-Québec Virtual Tour (30 minutes)
9:30	Dr. Cserti-Gazdewich	Acute Non-Infectious Reactions (45 minutes)
10:15	Dr. Marissa Laureano	Informed Consent (30 minutes)
10:45	Break (15 minutes)	
11:00	Facilitated Seminar 2A	Transfusion Reactions, developed by Dr. Christine Cserti-Gazdewich (90 minutes)
12:30	Lunch (60 minutes)	
13:30	Dr. Jacob Pendergrast	Sickle Cell Disease – Perioperative and Acute Transfusion Management (60 minutes)
14:30	Break (15 minutes)	
14:45	Facilitated Seminar 2B	SCD & Transfusion, developed by Dr. Jacob Pendergrast (90 minutes)

Day 2 will cover the following objectives

RISKS OF TRANSFUSION

1. Obtain informed consent for transfusion
2. Prevent, diagnose, manage and report acute and delayed transfusion reactions
3. State the current risks of transfusion-transmitted infections
4. Describe challenges to transfusion safety (getting the right blood to the right patient)

SICKLE CELL DISEASE

5. Safely transfuse a patient with sickle cell disease

DAY 3> PERIOPERATIVE & BLEEDING MANAGEMENT – January 20, 2023

Start time (EST)

9:00	Dr. Yulia Lin	Pre-operative Patient Blood Management (45 minutes)
9:45	Dr. Keyvan Karkouti	Intra-op Patient Blood Management: Tranexamic Acid; Salvage and Triggers (45 minutes)
10:30		Break (15 minutes)
10:45	Facilitated Seminar 3A	Patient Blood Management, developed by Dr. Yulia Lin (90 minutes)
12:15		Lunch (60 minutes)
13:15	Dr. Natasha Rupani	Congenital Coag – Bleeding history, VWD, Hemophilia (45 minutes)
14:00	Dr. Carolyne Elbaz	Reversal of Antiplatelets & Direct Anticoagulants (45 minutes)
14:45		Break (15 minutes)
15:00	Facilitated Seminar 3B	Advanced Hemostasis Testing & Management, developed by Dr. Eric Tseng (90 minutes)

Day 3 will cover the following objectives

PATIENT BLOOD MANAGEMENT

1. Have a standard approach to the management of pre-operative anemia
2. Apply patient blood management strategies, including for patients who refuse blood on religious grounds

CONGENITAL AND ACQUIRED BLEEDING

3. Perform a preoperative bleeding history
4. Interpret coagulation testing results
5. Develop an approach to patients with congenital or acquired bleeding disorders (including reversal of common anticoagulants)

DAY 4> MASSIVE HEMORRHAGE PROTOCOLS & REVIEW - March 24, 2023**Start time (EST)**

9:00	Dr. Jeannie Callum	Massive Hemorrhage: Pathophysiology & Evidence Based Management (60 minutes)
10:00	Dr. Katerina Pavenski	Massive Hemorrhage Protocols: Real World Application (45 minutes)
10:45		Break (15 minutes)
11:00	Facilitated Seminar 4	Massive, Disaster Bleeding Cases, developed by Dr. Jeannie Callum (90 minutes)
12:30		Lunch (45 minutes)
13:15	To be determined	New updates in Transfusion (30 minutes)
13:45	Panel	Ask the Experts Q&A and Review Session (45 minutes)
14:30	On Your Own	Post-Course Exam provided via email and administered via online survey tool (30 minutes)

Day 4 will cover the following objectives

MASSIVE HEMORRHAGE

1. Manage a massively hemorrhaging patient, including surgical, trauma and obstetric patients, with discussion of hemostatic medications (antifibrinolytics)

FACULTY

Dr. Justyna Bartoszko
University Health Network

Dr. Jeannie Callum
Kingston General Hospital

Dr. Christine Cserti-Gazdewich
University Health Network

Dr. Carolyne Elbaz
McGill University

Dr. Akash Gupta
Sunnybrook Health Sciences Centre

Dr. Keyvan Karkouti
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Dr. Aditi Khandelwal
Canadian Blood Services

Dr. Catherine Latour
Héma-Québec

Dr. Marissa Laureano
Trillium Health Partners

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Dr. Jacob Pendergrast
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Dr. Nancy Robitaille
Héma-Québec

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PLANNING COMMITTEE & PARTNERS

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Dr. Yulia Lin (Chair)
Sunnybrook Health Sciences Centre

Dr. Mirette Hanna
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**Canadian
Blood
Services**

BLOOD
PLASMA
STEM CELLS
ORGANS
& TISSUES



Laboratory Medicine & Pathobiology
UNIVERSITY OF TORONTO



Contact Transfusion Camp organizers by email at transfusioncamp@blood.ca