

UNIVERSITY OF TORONTO
TRANSFUSION CAMP CURRICULUM

2017-18



At the end of this course, the attendees will be able to:

INDICATIONS FOR BLOOD PRODUCTS

1. Appropriately prescribe components (RBC, plasma, platelets, and cryoprecipitate)
2. Perform a preoperative bleeding history
3. Interpret coagulation testing results
4. Have a reasonable approach to the correction of coagulation prior to procedures

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

RISKS OF TRANSFUSION

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

INDICATIONS FOR MANUFACTURED BLOOD PRODUCTS

12. Appropriately prescribe fractionated blood products (albumin, coagulation factor concentrates)
13. State when and how Rh immunoglobulin is administered in pregnancy

SPECIAL TRANSFUSION SITUATIONS

14. Know when to order irradiated blood products
15. Develop an approach to patients with congenital or acquired bleeding disorders (including reversal of common anticoagulants)
16. Safely transfuse a patient with sickle cell disease
17. Manage a massively hemorrhaging patient, including surgical, trauma and obstetric patients, with discussion of hemostatic medications (antifibrinolytics)

BLOOD CONSERVATION

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

ATTENDEE EXPECTATIONS

1. Attend all sessions
2. Be ready to vote with iclicker technology
3. Participate in team-based learning seminars
4. Refrain from excessive use of interruption devices (Blackberries, iPhones)
5. Arrange not to be on call the night before
6. Complete evaluations

COST

1. Free for all Ontario University trainees at the PGY1 level or greater

REGISTRATION

1. Register by contacting your program director
2. Trainees must have their program director's approval to participate

ATTENDEE MATERIAL

Attendees will be provided with:

1. PDFs of presentations uploaded to a common course file portal
2. Appropriate refreshments at breaks
3. Exam review session
4. Certificate of completion of course



OBJECTIVES
CONT.

TARGET AUDIENCE:

- Trainees 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
- A maximum number of local attendees of 100 students (first-come, first served)

LOCATION:

- St Michael's Hospital LiKaShing Institute, Allan Waters Auditorium
- Five days equally spaced throughout the academic year
- Attend via GotoWebinar through local University site

ATTENDEE CERTIFICATION:

- University of Toronto attendees will be provided with:
1. Certificate of completion of Transfusion Medicine Camp with attendance, pre-test and post-test scores
 2. To obtain certification, attendees must attend 3 of 5 days and complete the post-test exam

DAY 1 > FRI. JUL. 21, 2017 - BLOOD COMPONENT INDICATIONS &

ADMINISTRATION

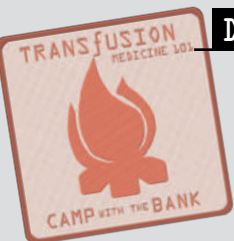
| | | | |
|----|-------------|---|--|
| 1 | 08:30-09:00 | Dr. Yulia Lin | Pre-Course Exam |
| 2 | 09:00-09:45 | Dr. Jeannie Callum | Red Cell Transfusion |
| 3 | 09:45-10:15 | Dr. Yulia Lin | Basic Blood Bank Testing |
| 4 | 10:15-10:30 | //////////BREAK//////////////////////////////////// | |
| 5 | 10:30-11:15 | Dr. Lani Lieberman | Platelet Transfusion |
| 6 | 11:15-12:30 | Dr. Katerina Pavenski | SEMINAR 1A: RBC & Platelet Transfusion Cases |
| 7 | 12:30-13:30 | ----- LUNCH ----- | |
| 8 | 13:30-14:00 | Dr. Lani Lieberman | Neonatal & Pediatric Transfusion |
| 9 | 14:00-15:00 | Dr. Jeannie Callum | Plasma, PCC & Cryoprecipitate |
| 10 | 15:00-15:15 | //////////BREAK//////////////////////////////////// | |
| 11 | 15:15-16:30 | Dr. Jeannie Callum | SEMINAR 1B: Plasma, PCC & Cryoprecipitate Cases |

DAY 2 > FRI. SEP. 15, 2017 - COMPLICATIONS:

COMPATIBILITY, ACUTE & LONG TERM TRANSFUSION RISKS & ERRORS

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|----|-------------|---|---|
| 1 | 09:00-09:30 | Dr. Katerina Pavenski | Informed consent |
| 2 | 09:30-10:00 | Dr. Margaret Fearon | Acute & Delayed Transfusion Transmitted Infections |
| 3 | 10:00-10:15 | //////////BREAK//////////////////////////////////// | |
| 4 | 10:15-11:00 | Dr. Christine Cserti-Gazdewich | Acute Non-Infectious Reactions |
| 5 | 11:00-12:30 | Dr. Christine Cserti-Gazdewich | SEMINAR 2A: Labile Component Reactions |
| 6 | 12:30-13:30 | ----- LUNCH ----- | |
| 7 | 13:30-14:00 | Dr. Robert Skeate | Virtual CBS tour |
| 8 | 14:00-14:30 | Dr. Robert Skeate | Delayed Non-Infectious Reactions |
| 9 | 14:30-14:45 | //////////BREAK//////////////////////////////////// | |
| 10 | 14:45-16:15 | Dr. Jacob Pendergrast | SEMINAR 2B: "Delayed or Derivative" Transfusion Reactions |

SCHEDULE



SCHEDULE CONT.

DAY 3 > FRI. JAN. 12, 2018 > SPECIAL TRANSFUSION SITUATIONS - MATERNAL, PERIOPERATIVE BLEEDING ASSESSMENT, SICKLE CELL DISEASE

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|---|-------------|---------------------------|--|
| 1 | 09:00-09:30 | Dr. Nadine Shehata | Anemia & Transfusion in Women of Child-bearing Age |
| 2 | 09:30-10:15 | Dr. Anne McLeod | Bleeding assessment & approach to INR/PTT |
| 3 | 10:15-10:30 | //////////BREAK////////// | |
| 4 | 10:30-12:00 | Dr. Elianna Saidenberg | SEMINAR 3A: Perioperative bleeding assessment |
| 5 | 12:00-13:00 | ----- LUNCH ----- | |
| 6 | 13:00-14:00 | Dr. Jacob Pendergrast | Sickle Cell Disease |
| 7 | 14:00-14:15 | //////////BREAK////////// | |
| 8 | 14:15-16:00 | Dr. Jacob Pendergrast | SEMINAR 3B: SCD & Transfusion |

DAY 4 > FRI. MAR. 23, 2018 - PATIENT BLOOD MANAGEMENT / CONSERVATION & COMPLEX HEMOSTASIS

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|----|-------------|---------------------------|--|
| 1 | 09:00-09:30 | Dr. Jacob Pendergrast | Transfusion as a Quality Indicator for Surgery |
| 2 | 09:30-10:00 | Dr. Yulia Lin | Pre-operative Patient Blood Management |
| 3 | 10:00-10:45 | Dr. Keyvan Karkouti | Intra-op Patient Blood Management: <i>Tranexamic Acid; Salvage and Triggers</i> |
| 4 | 10:45-11:00 | //////////BREAK////////// | |
| 5 | 11:00-12:15 | Dr. Yulia Lin | SEMINAR 4A: Patient Blood Management |
| 6 | 12:15-13:00 | ----- LUNCH ----- | |
| 7 | 13:00-13:30 | Dr. Michelle Sholzberg | Congenital Coag - VWD, Hemophilia |
| 8 | 13:30-14:15 | Dr. Rita Selby | Reversal of antiplatelets & direct anticoagulants |
| 9 | 14:15-14:30 | //////////BREAK////////// | |
| 10 | 14:30-16:00 | Dr. Nadine Shehata | SEMINAR 4B: Advanced Hemostasis Testing & Management |

DAY 5 > FRI. MAY. 25, 2018 - TRAUMA, MASSIVE TRANSFUSION PROTOCOLS, & CONTROVERSIAL ENTITIES

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|----|-------------|---------------------------|---|
| 1 | 09:00-10:00 | Dr. Jeannie Callum | Massive Hemorrhage: Pathophysiology & Evidence based management |
| 2 | 10:00-10:45 | Dr. Jacob Pendergrast | Massive Hemorrhage Protocols: Real World Application |
| 3 | 10:45-11:00 | //////////BREAK////////// | |
| 4 | 11:00-12:30 | Dr. Jeannie Callum | SEMINAR 5A: Massive, Disaster Bleeding Cases |
| 5 | 12:30-13:15 | ----- LUNCH ----- | |
| 6 | 13:15-13:45 | Dr. Eddy Fan | Albumin |
| 7 | 13:45-14:30 | Dr. Jordan Tarshis | Transfusion Authority Gradient |
| 8 | 14:30-14:45 | //////////BREAK////////// | |
| 9 | 14:45-15:45 | Dr. Yulia Lin | Ask the Expert Panel Q&A Session |
| 10 | 15:45-16:15 | Dr. Yulia Lin | Post-Course Exam |



FACULTY

Dr. Asim Alam
Sunnybrook Health Sciences Centre

Dr. Jeannie Callum
Sunnybrook Health Sciences Centre

Dr. Christine Cserti-Gazdewich
University Health Network

Dr. Margaret Fearon
Canadian Blood Services

Dr. Keyvan Karkouti
University Health Network

Dr. Wendy Lau
Hospital for Sick Children

Dr. Lani Lieberman
University Health Network

Dr. Yulia Lin
Sunnybrook Health Sciences Centre

Dr. Stuart McCluskey
University Health Network

Dr. Anne McLeod
Sunnybrook Health Sciences Centre

Dr. Katerina Pavenski
St. Michael's Hospital

Dr. Jacob Pendergrast
University Health Network

Dr. Elianna Saidenberg
University of Ottawa

Dr. Rita Selby
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Dr. Michelle Sholzberg
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Dr. Nadine Shehata
Mount Sinai Hospital

Dr. Robert Skeate
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Dr. Jordan Tarshis
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