



Transfusion Camp for Nurse Practitioners Program

LEARNING OBJECTIVES

Upon completion of Transfusion Camp for nurse practitioners, learners will be able to:

INDICATIONS FOR BLOOD PRODUCTS

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
5. State when and how Rh immunoglobulin is administered in pregnancy

BLOOD BANK TESTING

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

RISKS OF TRANSFUSION

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

PATIENT BLOOD MANAGEMENT

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

CONGENITAL AND ACQUIRED BLEEDING

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

MASSIVE HEMORRHAGE

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

TARGET AUDIENCE

This course is targeted at nurse practitioners in adult, geriatric, and/or pediatric care, and in acute care, who are looking to obtain competency to prescribe blood components and blood products.

Transfusion Camp is hosted by experts at Vancouver Coastal Health Authority and Fraser Health Authority. However, learners from any British Columbia health authority/jurisdiction can register for the course.

Depending on location and mode of delivery, there may be a maximum number of attendees allowed per Transfusion Camp.

ATTENDEE EXPECTATIONS

PARTICIPATION

Learners are expected to:

1. Attend all sessions.
2. Actively participate during lectures and team-based learning seminars.
3. Refrain from excessive use of interruption devices (mobile phones).
4. Arrange not to be on call the night before; and the days of the Camp.
5. Complete all the evaluations.

COST

1. Registering for the course is free (except for PCN NPs).

REGISTRATION

1. Learners must have their local program administrator's approval to register.
2. Register by contacting your local program administrator and Taranjeet Dhaliwal (taranjeet.dhaliwal@fraserhealth.ca).

COURSE INFORMATION

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CONTENT

- Transfusion Camp consists of three modules
- Course materials are prepared by the Transfusion Camp for Non-Physician Prescribers Steering Committee (TCNPP) (see membership below).
- Course materials leverages content developed for another Transfusion Camp which is targeted at post-graduate medical trainees and which is developed by transfusion experts at the University of Toronto.

FORMAT

Transfusion Camp consists of three modules, each module can be completed in one day and include pre-readings, pre-recorded lectures and team-based learning seminars.

- The timing of each Transfusion Camp is tailored to a group (e.g. modules may be delivered over 3 consecutive days, over a week, or a couple of months).
- Learners read the pre-readings prior to completing a module, view the lectures on their own or in groups, and attend team-based learning seminars in groups.
- The delivery of each Transfusion Camp is tailored to a group and is dependent on the circumstances (e.g. groups may meet in person or remotely via webcast/conferencing).
- Learners are informed of the format of their Transfusion Camp well in advance of the first session. Enquiry about timing, delivery format and location can be made to your local program administrator or Taranjeet Dhaliwal (taranjeet.dhaliwal@fraserhealth.ca) or transfusioncamp@blood.ca.

MATERIAL & CERTIFICATION

- Learners will be provided with access to a **course portal** to access pre-reading materials, lectures (slides and recordings), seminar guide and questions, and additional transfusion medicine resources. Access is provided a minimum of two weeks prior to start of module 1. Access is removed one year after completion of last module.
- Course materials **must not be used or distributed** outside of Transfusion Camp without the consent of the Transfusion Camp organizers.
- Course materials are provided for **educational purposes only**. They are not intended to be a substitute for the advice of a physician and should be assessed in the context of the applicable medical, legal and ethical requirements in any individual case.
- Learners will be provided with a **Certificate of Course Completion** upon completing **all 3 modules and both the pre- and post-tests**.

COURSE SCHEDULE

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Module 1: BLOOD COMPONENT INDICATIONS & ADMINISTRATION – January 17, 2024

Pre-course exam

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| Dr. Jeannie Callum | Red cell transfusion (pre-recorded lecture, 45 minutes) |
| Dr. Yulia Lin | Basic blood bank testing (pre-recorded lecture, 30 minutes) |
| Dr. Katerina Pavenski | Platelet transfusion (pre-recorded lecture, 45 minutes) |
| Dr. Aditi Khandelwal | Plasma, PCC, & fibrinogen concentrate (pre-recorded lecture, 60 minutes) |
| Module 1 Seminar A: RBC & platelet transfusion cases (75 minutes) | |
| Module 1 Seminar B: Plasma, PCC & fibrinogen cases (60 minutes) | |

Module 2: TRANSFUSION REACTIONS & COMPLICATIONS – January 31, 2024

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|---|---|
| Dr. Christine Cserti-Gazdewich | Acute non-infectious reactions (pre-recorded lecture, 45 minutes) |
| Dr. Marissa Laureano | Informed consent (pre-recorded lecture, 30 minutes) |
| Dr. Nadine Shehata | Alloimmunization & anemia in pregnancy (pre-recorded lecture, 30 minutes) |
| Dr. Yulia Lin | Pre-operative patient blood management (pre-recorded lecture, 45 minutes) |
| Module 2 Seminar A: Transfusion reactions (90 minutes) | |
| Module 2 Seminar B: Consent and patient blood management (90 minutes) | |
| OPTIONAL LECTURE TO VIEW ON YOUR OWN: | |
| Dr. Steven Drews | Acute & delayed transfusion transmitted infections (pre-recorded lecture, 30 minutes) |

Module 3: BLEEDING MANAGEMENT & MASSIVE HEMORRHAGE PROTOCOLS – February 14, 2024

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|--|---|
| Dr. Natasha Rupani | Congenital Coag – Bleeding History, VWD, Hemophilia (pre-recorded lecture, 45 minutes) |
| Dr. Carolyn Elbaz | Reversal of antiplatelets & direct anticoagulants (pre-recorded lecture, 40 minutes) |
| Dr. Jeannie Callum | Massive Hemorrhage: Pathophysiology & Evidence based management (60 minutes) |
| Dr. Katerina Pavenski | Massive Hemorrhage Protocol: Translation to the Real World (pre-recorded lecture, 60 minutes) |
| Module 3 Seminar A: Perioperative Bleeding Assessment (90 minutes) | |
| Module 3 Seminar B: Massive, Disaster Bleeding Cases (90 minutes) | |
| OPTIONAL LECTURE TO VIEW ON YOUR OWN: | |
| Dr. Lani Lieberman | Neonatal & Pediatric Transfusion (pre-recorded lecture, 30 minutes) |
| Post-course exam | |

Notes:

Pre-and post-course exams consist of online electronic surveys emailed to all learners prior to completing module 1 and after completing module 3, respectively.

A list of pre-reading materials and recorded lectures for each module are shared on the course portal.

STEERING COMMITTEE

Andrew Shih, MD, FRCPC
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