

The ORBCoN Report

Ontario Regional Blood Coordinating Network

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Managing Blood Shortages

This edition of the ORBCoN Report is structured around the theme of “Managing Blood Shortages”. In this newsletter, you will find an overview on the National Plan for the Management of Shortages of Labile Blood Components as well as an article on the ethical decision making framework to be applied to massively bleeding patients in a blood shortage situation. On March 10th, 2010, Ontario held an exercise to simulate a blood shortage. 27 hospitals were selected to participate in the exercise. This edition of the ORBCoN Report includes a review by three of the hospitals that participated, to share their experiences. One review is from a teaching hospital, one from a community hospital and one from a small hospital. A final report of the exercise including final recommendations will be available on our website <http://www.transfusionontario.org>.

ORBCoN continues to provide resources for Ontario hospitals. Our recent releases include:

- Ontario Practice recommendations for the use of Frozen Plasma and order request algorithm
- The Special Blood Needs card toolkit
- The Technologist Assessment program and Online Audit have been re-branded under the Bloody Easy name and moved onto a common server for easier access
- A handbook – “Bloody Easy Blood Administration” is available in English and French

Coming soon:

- Online audit tool for transfusion processes at the bedside
- IVIg toolkit including infusion practice recommendations
- Question and Answer Section in up coming newsletters which will also be posted on our website <http://www.transfusionontario.org>

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Overview of the National Plan for the Management of Shortages of Labile Blood Components

By: Wendy Owens, Regional Coordinator, ORBCoN Northern and Eastern Ontario

The National Advisory Committee on Blood and Blood Products (NAC) released a National plan in the Spring of 2010 to support the management of blood shortages in Canada. The National plan can be accessed at

<http://www.nacblood.ca> and provides direction to help ensure a collaborative and consistent

approach will be taken to reduce the demand on the blood supply if a critical supply shortage occurs.

The National Plan outlines roles and responsibilities for Canadian Blood Services (CBS), provinces and hospitals during Amber and Red phases of a blood shortage. Recommendations are provided on decision making to reduce or defer requests for blood components at hospitals.

The objective of these decisions is to reserve the scarce supply for those patients with the most urgent life threatening need; however, in order to prioritize blood need in an equitable and fair manner, an ethical framework should be applied. The following article provides an example of ethical principles used for allocation of blood during critical shortages.

Ethical Principles to Guide Resource Allocation during Critical Blood Shortages

By: Nadine Shehata - Assistant Professor, Department of Medicine Associate Scientist and Staff Physician Division of Hematology, St. Michael's Hospital

The National Advisory Committee on Blood and Blood Products has assembled a panel to develop a management plan for the allocation of blood during critical blood shortages for patients who require massive transfusion; as these patients can consume up to 25% of the blood supply.

The allocation of blood for these patients during critical shortages will create a conflict among several ethical principles as there is no just method of balancing the needs of individual patients against the needs of society i.e., ensuring that the allocation of blood is fair and equitable. The difficulty in allocating blood during critical blood shortages can be illustrated by the following example. Who, during a critical blood shortage, should be allocated blood if the following three patients required blood simultaneously a 25 year old pregnant female who is hospitalized with massive bleeding, a 55 year old male who is hospitalized with multiple traumatic injuries, or a neonate undergoing urgent cardiac transplantation? As there is no simple method for selecting one individual, an allocation system needs a sound ethical framework.

The ethical framework for the allocation of blood during critical blood shortages will consider ethical principles based on the public health goal, i.e. to achieve the greatest good for the greatest number of people. Ethical principles to achieve this endpoint include the following principles, 1) treating people equally, 2) saving the most lives, and 3) maximizing life years saved. These principles do conflict with the four precepts for respect of an individual i.e. autonomy, beneficence, nonmaleficence and justice as there will be individuals who will not receive blood. The allocation system, however, will incorporate an appeals process; will engage stakeholders including the public; will be flexible to modification from new information and will be transparent so as to provide an opportunity for all individuals to receive blood during critical shortages.

Reports From Simulation Blood Shortage Exercise

Teaching Hospital Perspective

By: Melanie Tokessy, Charge Technologist, Transfusion Medicine and Doris Neurath, Manager, Transfusion Medicine, Tissue Typing/DNA & Flow Cytometry, The Ottawa Hospital, Ottawa ON

On March 10, 2010 notification of the blood shortage simulation was sent by fax to all three of The Ottawa Hospital (TOH) Transfusion Medicine (TM) labs. The simulation was to mimic an amber phase of a shortage due to severe weather. The exercise was coordinated by the Charge Technologist at the General Campus who served as Lead for the exercise. The Lead notified the Medical Director (MD), the Charge Technologists and TM staff at the other campuses. The Lead and the MD assessed the current blood inventory at all three campuses and reviewed all blood orders from the operating room and Medical Day Unit. A list of possible cancellations was made following the amber phase criteria as per the TOH Blood Shortage Contingency Policy. Each possible cancellation was documented on a spread sheet with type of service, product ordered and possible adverse patient outcome. The MD sent notification emails to the Medical Vice President and Chief of Staff at TOH. The TOH policy includes notification to the Regional Hospital Chiefs of Staff and managers. This exercise was a valuable tool in assessing the capability of the Blood Shortage Contingency Policy at TOH. Problems identified: Fax machines are often not centrally located making it easy to miss an urgent fax. As well, not all key players are able to check their email in a timely manner. It is imperative to use all means of communications available (email, fax, telephone, paging) to ensure all entities are informed and to have acknowledgement that the notification has been received.

Community Hospital Perspective Learning From Doing – Mock Exercise

By: Laura Harrison, Transfusion Technical Specialist, Dr. Janice Zeng, Pathologist, Department of Laboratory Medicine, Credit Valley Hospital, Mississauga ON

The Provincial Mock Exercise provided an excellent opportunity to validate our hospital-wide Contingency Plan for Blood Shortages. Notification was received from Canadian Blood Services of an Amber Phase Blood shortage and our recently developed Contingency Plan for Blood Shortages was initiated. The plan was assessed for communication, situation assessment and potential actions and gaps and suggestions for improvements were documented.

Communication Gaps: Communication by email provided a standard format and message, but phone calls were needed to assess Emergency Blood Management Committee members' availability to meet and confirm that the Chiefs for Critical Care, Emergency and Surgery were immediately aware of the mock exercise. Key contact email groups would enable quicker communication.

Situation Assessment Gap: In-hospital blood product inventory levels were checked but not communicated back to CBS as required.

Potential Actions Gap: Clarification was provided to lab staff regarding their responsibility to limit product issue.

Suggestions: The surgery group suggested a physical sign for posting in the Operating Room for easy notification of surgeons working in the area. This suggestion was embraced by the Emergency Department as well for similar reasons. Gaps and suggestions will be incorporated into the next document revision.

Reports From Simulation Blood Shortage Exercise *continued*

Small Hospital Perspective

By: Barry Berringer, Laboratory Manager, Hanover and District Hospital, Hanover ON

The Hanover and District Hospital was prepared to take part in the mock exercise, having its protocol in place and staff ready if chosen. Unfortunately the fax sent to us, informing us that we were part of the exercise appeared to be no different than any other routine fax from CBS. As is the routine, the fax was placed in the manager's in box, and as the manager was away at meetings that day the fax was missed and Hanover Hospital did not participate in the exercise.

In order to ensure that our protocol worked, we went through the exercise the next day with the participation of the laboratory team. This was a successful venture as our run through showed that our protocols worked very smoothly. ORBCoN was informed of our plan ahead of time and of the success of its outcome. Although we did not participate on the designated date, we felt that a better plan for acknowledging faxes needed to be implemented.

Upcoming Educational Events Calendar

Event	Where	When
GHEST Education Symposium	Hamilton, ON	September 11, 2010
3rd Annual Provincial Transfusion Committee Forum	Courtyard Marriott, downtown Toronto, ON	September 24, 2010
AABB Annual General CTTXP	Baltimore MD	October 9 -12, 2010
LHSC Education Symposium	London, ON	November 6, 2010

For more information related to these events or any of our resources, please visit our website at www.transfusionontario.org.

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Quote

When schemes are laid in advance, it is surprising how often the circumstances will fit in with them.

~ Sir William Osler

1849-1919, Canadian Physician