The ORBCoN Report
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in this Issue

1 What's New at ORBCoN?

2 Ontario Intravenous Immune Globulin (IVIG) Audit 2012: Key Results

3 Red Blood Cell Transfusion Audits: Time to Look Inside Your Closet

4 Case Study

What's New at ORBCoN?

The ORBCoN team is delighted to announce that we have two new additions to our staff:

1. Leonor De Biasio, RN, Clinical Project Coordinator Transfusion Safety Nurse. This is a .5 position. Leonor has many years of nursing experience, most recently as an operating room nurse at Sick Kids and a lab instructor for the nursing program at George Brown College. We are fortunate to have her join us and look forward to the development of this new and evolving role within ORBCoN. Leonor will be based at the Central ORBCoN office and can be reached via email at leonor.debiasio@sunnybrook.ca or by telephone at 416 480 6100 x 87273.
2. Allison Collins, MD, Clinical Project Coordinator. This is a .2 position. Allison is a very knowledgeable medical director with over 22 years of experience in this role at Peterborough Regional Health Centre (PRHC). She is also actively involved with the Infection Control, Medical Advisory and Pharmacy and Therapeutics committees and is Chair of both the Transfusion and Point of Care Advisory Committee. These memberships reflect committee work at two organizations: PRHC and Northumberland Hills Hospital (NHH). She also serves on the Ontario Blood Advisory Committee, ORBCoN's Steering Committee, and the QMPLS Transfusion Medicine Scientific Committee. Allison will be based at the Central ORBCoN office and can be reached via email at Allison.collins@sw.ca.

ORBCoN continues to focus on education in 2014 and will be hosting the following events:

- Transfusion Committee Forum: Utilization: The Good, the Bad and the Ugly-What's a Transfusion Committee to Do? February 24, 2014 King Edward Hotel, Toronto
- 9th Annual Transfusion Medicine Education Spring Symposium: Bleeding Issues in the Anticoagulated Patient April 9th, 2014 on OTN (Ontario Telehealth Network) in conjunction with Canadian Blood Services

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Reminder: Health Canada published the Blood Regulations, in the Canada Gazette, Part II (CGII), 23 Oct. 2013, Vol. 147, No. 22. http://www.gazette.gc.ca/rp-pr/p2/2013/2013-10-23/html/sor-dors178-eng.php. The regulations come into force on 23 Oct. 2014.

ORBCoN is also involved with the provincial blood shortage exercise that was held recently (Feb. 3rd and 4th).

Fifty-three hospitals participated in an audit of Frozen Plasma (FP) and Prothrombin Complex Concentrates (PCCs) during a four week period between November 18 and December 13, 2013. Hospital site reports are available immediately using the report tab on e-tools. A full report of the audit will be prepared and distributed to hospitals in 2014/15.

Don't forget to visit our website www.transfusionontario.org for up to date information and to refresh yourself on all of the free resources available to you.

Ontario Intravenous Immune Globulin (IVIG) Audit 2012: Key Results

Kate Gagliardi BA, ART, Laurie Young MLT Ontario Regional Blood Coordinating Network

Monitoring use of IVIG is a priority for the Blood Programs Coordinating Office at the Ministry of Health and Long-Term Care (MOHLTC). In fall 2012, 61 Ontario transfusion services participated in a province wide audit of IVIG utilization. This is the second province wide IVIG audit implemented by ORBCoN, and it serves as one facet of the 2012 Ontario IVIG strategy launched by the MOHLTC. The audit report has been posted http://transfusionontario.org/en/cmdownloads/categories/ivig/.

Our sincere thanks go to all the hospital staff who worked diligently to enter data for the audit.

The audit captured data on 2,246 patients and 6,442 infusions. This corresponded to 301,298.4 grams infused. Adult patients comprised 88% of the patients entered. Of the remaining 12% 257 were pediatric patients (17 years or lower), and 17 were neonates (0 to 28 days). Data analysis and specialist review of the clinical indications resulted in 120 clinical indications being included in the report; this is similar to the 2007 audit where over 80 clinical indications were included.

Utilization assessed using the Ontario IVIG Guidelines (version 2, March 31 2012) demonstrated use for:

- Approved clinical conditions 85.4%
- Recommended option clinical conditions 1.8%
- Not approved clinical conditions 12.8%

Some observers are surprised to see the 12.8% use for not approved conditions. The strategy does include putting a process in place at hospitals to screen for approval of any requests for IVIG for clinical conditions not listed in the guidelines; however, that screening does not mean requests are denied. We use the term 'not approved' as a catch all term for any condition other than those that are listed as approved and recommended conditions for use of IVIG; it does not invalidate IVIG requests for those patients.

The other key result to emphasize is unrelated to the audit, but nevertheless newsworthy. Shipments of IVIG to Ontario decreased in 2012-13 for the first time in 10 years; previous years' increases averaged 8%. While we do not expect that downward trend to continue, it was a welcome change in the history of IVIG utilization in Ontario.

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Red Blood Cell Transfusion Audits: Time to Look Inside Your Closet

Yulia Lin MD, FRCPC, CTBS Sunnybrook Health Sciences Centre

Performing an audit is a lot like cleaning out a closet. You know that there is a lot of stuff in there – some good and some bad but you don't know exactly what until you sit down and do it. And once you've done it, you're really glad that you did, because sometimes you find an item that you didn't even know you had and other times, you figure out where the bad smell was coming from. Either way, the whole process might just lead to changes for the better.

Audits have been a key initiative for ORBCoN to promote and support utilization improvement activities. To date, the provincial audits have been conducted on frozen plasma, specimen collection, bedside administration and IVIG (available at: http://orbcon.transfusionontario.org/etools/). The next available audit in development is the Red Blood Cell (RBC) transfusion audit tool. What better way to look at transfusion utilization then to audit the most common blood component that is issued every day at our blood banks. In Ontario, over 390,000 RBC units are issued annually. The sheer volume of RBC transfusions that occur present a substantial challenge in performing a provincial audit. So, as an initial step, a pilot RBC audit was performed to determine which practitioners most often prescribe RBC transfusions and to describe the current ordering practice for RBC transfusions.

Over two 7-day periods in the summer of 2013, the RBC audit was conducted at five community hospitals in Ontario from each of the three ORBCoN regions. There were 455 RBC transfusion orders and 856 RBC units transfused in 384 patients. 100% of the orders were ordered by staff physicians. The top three specialties of the prescribing physicians were internal medicine (22%), emergency medicine (17%) and family medicine (15%). The median number of units ordered was 2 units with 55% of orders being for 2 unit transfusions. Interestingly two thirds of transfusion orders were for even-number transfusions. The average pre-transfusion hemoglobin was 76 g/L with 75% of transfusions having a pre-transfusion hemoglobin above 70 g/L and 32% above 80 g/L. Almost one third of patients had a post-transfusion hemoglobin above 100 g/L.

So what did we learn from this exercise? The RBC audit provided us with target physician groups for disseminating education about RBC transfusion in these community hospitals. It has focused some of the key messages that should be included in the education: 1) the use of single unit transfusions with post-transfusion reassessment and 2) reinforcing the use of current evidence-based guidelines with respect to assessment for RBC transfusion. All the hospitals found that the RBC audit was useful. They anticipated that they will use the information collected to present to their local transfusion committees. But, we also learned that performing an RBC audit is labour intensive requiring a significant investment of time and resources to extract the data. Given the workload involved, it would be difficult to perform an RBC audit across the province using this current tool.

The RBC audit tool is now available to hospitals interested in performing audits on their local practice. But, to get a provincial picture of RBC utilization in Ontario will require us to invest in electronic solutions where large amounts of information can be cross-referenced from different hospital databases. This strategy is already underway as a pilot project. Stay tuned and watch this space. Hopefully, over time, we will all soon be able to detail the items in our transfusion closets and make changes for the better.

Case Study

Judy Kyte RN, Cornwall Community Hospital and Elianna Saidenberg MD, FRCPC, Eastern Ontario Regional Laboratory Association, Cornwall Community Hospital

Setting:
Cornwall Community Hospital, Cornwall, Ontario

Background information:
At our TM committee meeting it was identified that patients requiring transfusion were still being identified using a "blood bracelet" system rather than their hospital ID band. The "blood bracelet" system required TM lab staff to hand write a patient ID number specific to transfusion and separate from the MRN on the bracelets which were then affixed to the patients. It was felt that this added step introduced significant risk for human error to put patients at risk of adverse outcomes related to their transfusions. Patients on chronic transfusion therapy often would have multiple of these bracelets creating confusion for all involved. Additionally, the hand written numbers would often smudge and become illegible. Despite these problems with the "blood bracelets" there was hesitance to discontinue the practice as people worried that not all patients at the Cornwall Community Hospital were being properly identified with hospital ID bands. To determine if this was the case, we undertook an audit of patients in all areas of the hospital to determine what percentage were correctly identified by hospital ID bands.

Description of event:
Over a number of days during July 2011 we visited every department at least once. (Emergency and OR/PACU were visited more frequently.) Each patient was assessed as to whether the ID band was being worn on the wrist (or ankle, for newborns), if the information was legible and whether the information was correct. We authenticated the information with the patient's chart and with the patient or patient's family. A total of 180 patients were assessed. 91% of ID bands had the correct, legible information and 88% of patients were wearing their ID bands.

Conclusion:
Small problems with the hospital ID band system were identified and have since been corrected. The "blood bracelet" system was discontinued. To date we have not encountered problems with patients not being correctly identified at the time a transfusion is needed. However, this is an area requiring ongoing vigilance and we hope to repeat audits in the future until 100% of patients are found to be correctly identified.

The Cornwall Community Hospital is not a tertiary care academic health sciences centre. However, that does not mean that we should accept sub-standard transfusion practices that put our patients at risk. Patient safety should be the number one priority for everyone providing health care to Canadians. This was one little exercise done at one little hospital, but we think it has improved safety for the thousands of patients we transfuse each year. We would be more than happy to share our experience with you and help you do a similar exercise at your centre- because your patients are worth it too.

Question to Ponder:
What is the most important transfusion risk related to incorrectly identified or unidentified patients receiving transfusion?

Please refer to our website www.transfusionontario.org for a posting of the answer to this question.
Compare your answer to the question posed.