

ORBCoN RBC Audit

Introduction

The goals of this audit are to:

- 1) Determine the current practice for ordering RBC transfusion; and
- 2) Determine which practitioners are transfusing RBCs.

The information derived from this audit will ultimately be used to develop an education strategy for practitioners who order RBCs.

Instructions for the RBC Audit

The RBC audit will be conducted at 5 community hospitals in Ontario. It is anticipated that this audit will be done retrospectively on a weekly basis (7 days) for two weeks between June 15, 2013 and August 31, 2015. The two weeks may be separate or back to back.

The following pages contain the audit tool including an explanatory guide to clarify the meaning of the questions.

- 1) Fill out the institutional information (questions 1-7).
- 2) Fill out the audit tool for consecutive RBC transfusion orders:
 - a. Questions 1-14 are to be answered for each transfusion order. If the transfusion order meets criteria for further audit, complete questions 15 & 16. Questions 15 & 16 require medical chart review and may require input from the medical director.
 - b. Exclude cases where the order to transfuse originated at another site (i.e. patients who receive blood during transfer to your hospital).

Please contact ORBCON (deborah.lauzon@sunnybrook.ca) if you have any questions regarding the audit or how to handle certain situations that may not have been covered by the explanatory guide.



Explanatory guide

Institution questions (answer only once)

	Question	Explanatory Guide
1	Hospital Name – will automatically appear upon log in	
2	How many RBC units were transfused at your institution in 2012? [enter the number]	Enter the number of RBC units transfused in 2012 calendar or 2012/13 fiscal year (for hospitals with multiple geographical sites, please enter the number only for the hospital site being audited)
3	Does your institution have RBC transfusion guidelines? Yes/No	This means a written local policy available to ordering practitioners.
4	Does your institution use pre-printed transfusion orders? Yes/No	“Yes” means that pre-printed orders are available hospital-wide.
5	Does your institution use computerized physician order entry (CPOE) for transfusion orders? Yes/No	Select “yes” if more than 75% of orders are through computerized physician order entry available.
5a	If yes, does the CPOE have transfusion decision support? Yes/No	Select “yes” if there is any mechanism built into CPOE to guide the practitioners’ ordering practice including displaying the local guidelines or warnings.
6	Is pre-transfusion hemoglobin (Hb) checked by the blood transfusion laboratory prior to issuing a RBC unit? Yes/No	Select “yes” if this is done by the blood bank technologist more than 25% of the time.
7	Are you currently running clinical trials looking at transfusion triggers? yes/no	This refers to randomized clinical trials evaluating different Hb levels for transfusion. This does not include trials about red cell storage duration.
	Comment Box	If you have any comments to clarify the above answers, please list the question (e.g. #7)_and comment in free text.



RBC Transfusion Order Questions

	Questions	Explanatory Guide
1	Patient Audit Code [enter code from your internal log sheet] **if repeat patient, use same code and the web tool will automatically pre-populate fields for sex and age	Number your patients consecutively e.g. 001, 002. and keep track of number assigned on a separate log sheet. (the same patient code should be used for subsequent orders on the same patient)
2	Patient sex: Male/Female	
3	Patient age: enter month and year of birth	
4	Transfusion Order	This is a system-generated number to keep track of each of the transfusion orders. A transfusion order is the practitioner request for RBC transfusion.
5	Transfusion Order Date and time	This is the date and time the order was received by the blood transfusion laboratory. Enter date using calendar. Enter time using 24 hour clock.
6	Enter the number of RBC units ordered	This is the number of RBC units ordered by the practitioner
7	Enter the number of RBC units transfused for the order	This is the number of RBC units issued by the blood bank and presumed transfused (not returned back to the blood bank) based on the transfusion order.
7a	If at least one unit transfused enter the date and time the 1st RBC unit of the order was issued	Enter date using calendar. Enter time using 24 hour clock. If more than one RBC unit is issued, enter the time of issue for the 1 st RBC unit issued.



8	To what location was the RBC issued?	Select the location to which the RBC was issued. Specific inpatient wards have not been included. The assumption is that the combination of the MRP specialty and inpatients would provide info about type of inpatient ward.
9	Specialty of the Most Responsible Physician - make a selection from the drop down menu	Select the specialty of the most responsible physician. This is usually the physician who admitted the inpatient. For outpatients, this should be the physician who ordered the transfusion.
10	Position of practitioner ordering the RBC transfusion – make a selection from the drop down menu	Staff physicians include hospitalists. This is a mandatory field for the transfusion orders requiring further chart review (questions 15 & 16)
11	Specialty of the ordering practitioner – make a selection from the drop down menu	Select the specialty of the ordering practitioner. This is the practitioner who has requested the transfusion order. This is a mandatory field for the transfusion orders requiring further chart review (questions 15 & 16).
12	Was a pre-transfusion hemoglobin level available? Yes/No If yes, enter the level in g/L and the date/time	Enter the most recent Hb prior to the issue of the 1 st RBC unit. Also enter the date and time of the Hb using the calendar and the 24 hour clock.
13	Was a post-transfusion hemoglobin level obtained? Yes/No If yes, enter the level in g/L and the date/time	Enter the first Hb after the issue of the 1 st RBC unit. Also enter the date using the calendar and time using the



		24 hour clock. Check “No” if no post-transfusion Hb done within 1 week.
14	<p>Admitting diagnosis – make a selection from the drop down box e.g. Cardiac: coronary artery disease, myocardial infarction, angina, hypertension, heart failure, peripheral vascular disease, congenital heart disease, atrial fibrillation, Cerebrovascular: stroke, TIA, seizures, peripheral neuropathy Gastrointestinal: GI bleed, cirrhosis, inflammatory bowel disease Hematologic non-malignant: hemoglobinopathy, haemolytic anemia, ITP Oncologic: cancer related including hematologic e.g. febrile neutropenia, lymphoma, myelodysplasia Orthopedic: hip fracture, orthopedic surgery including hip and knee replacement Renal/Urologic: includes dialysis, renal failure, prostate, urinary tract infection Respiratory: chronic lung disease, COPD, pneumonia Trauma: includes falls resulting in more than hip fracture (isolated hip fracture, please enter under orthopaedics), traumatic brain injury</p>	<p>List the specific reason for admission in the free text box. This information should be obtained from the electronic chart if possible and may not be the same as the indication for RBC transfusion. Check the appropriate category.</p> <p>You may also enter any other comments about the transfusion order here, if necessary.</p>
	<p>Questions 15 and 16 are optional. If the pre-transfusion Hb is 80 g/L or higher, please continue on to questions B15 and B16</p>	<p>A more detailed medical chart audit should be performed on orders where the pre-transfusion hemoglobin is 80 g/L and above. These transfusion orders will require answers to questions B15 and B16.</p>
15	<p>Clinical indication for the RBC transfusion- check all that apply</p>	<p>In some cases you may not be able to identify the reason the practitioner decided to order the transfusion, in which case you can state</p>



	<p>If patient has symptomatic anemia - check all that apply</p> <p>If bleeding, then where? - check all that apply</p> <p>If bleeding, did the Hb drop more than 20g/L in the 24 hours prior to issue of the 1st RBC unit? [yes/no/not known]</p>	<p>“unknown”.</p> <p>Low Hb without symptoms refers to a transfusion ordered by the physician for a specific Hb number. There is no specific definition for low Hb. Cases where only “anemia” is documented should be listed under low Hb.</p> <p>Symptomatic should be assessed according to the documentation by the practitioner in the chart or if done, discussion with the practitioner. Discussion with the practitioner is not expected.</p>
16	<p>Patient comorbidities – check all that apply e.g. Cardiac: coronary artery disease, myocardial infarction, angina, hypertension, heart failure, peripheral vascular disease, congenital heart disease Cerebrovascular: stroke, TIA Chemotherapy/Radiotherapy: state which cancer type Hematologic: hemoglobinopathy, haemolytic anemia Respiratory: chronic lung disease, COPD</p>	<p>This is to describe underlying comorbidities of the patient specifically pertinent to the decision to order RBCs</p>
	<p>Free text comment box – enter all relevant comments pertaining to this transfusion order including the admitting diagnosis in B14.</p>	

