#### Medical Directive for the Management of Perioperative Anemia

Approved by and Date: January 18, 2005

#### **Authorized to whom**

The Transfusion Nurse Coordinator (TNC) is a Registered Nurse. The TNC has gained the necessary knowledge, skills and judgement through extensive educational activities provided by Ontario Transfusion Coordinators (ONTraC) Network. The TNC works collaboratively with the Laboratory Physician most responsible for Hematology/Transfusion Services.

# **Medical Directive Description**

This medical directive will enable the TNC to order the following blood work for patients undergoing an elective surgical procedure listed in the Maximum Surgical Blood Ordering Schedule (MSBOS)<sup>1</sup> if there is the potential for administration of blood /blood products:

CBC, Iron studies, Ferritin, RBC Folate, Vitamin B12.2

The CBC results will determine if the remaining blood work will be ordered. A copy will be sent to the physician responsible for Hematology/Transfusion Services or delegate and the patients' Health Care Provider (HCP).

#### **Patient Description / Population**

The patient has consented to an elective surgical procedure, which may require transfusion.

The patient has been referred to the TNC for perioperative anemia assessment.

# Identify relevant Delegated Control Act or Added Skill associated with this Directive

The TNC has extensive knowledge and experience related to Transfusion Medicine therapy and is able to discuss the risks, benefits and alternatives to treatment. The TNC will discuss transfusion and blood conservation strategies with the patient based on laboratory results<sup>3</sup> and surgical procedure.<sup>4</sup>

# Specific conditions/circumstances that must be met before the Directive can be implemented

<sup>&</sup>lt;sup>1</sup> Lakeridge Health, Laboratory Manual. (2003). Preadmission Laboratory Testing for Elective Surgery. Maximum Surgical Blood Ordering System.

<sup>&</sup>lt;sup>2</sup> Eprex® Epoetin alfa. (2003) Product Monograph.

<sup>&</sup>lt;sup>3</sup> College of Nurses Of Ontario

<sup>&</sup>lt;sup>4</sup> Lakeridge Health. Perioperative Blood Conservation Program: Management of Perioperative Anemia Algorithm (2004)

TNC will discuss risks and benefits of transfusion and alternatives therapies with patients undergoing an elective surgical procedure in accordance with the MSBOS.<sup>5</sup> The TNC may obtain consent from the informed patient.

# **Contraindications to the implementation of the Directive**

The patient is deemed incompetent to make an informed decision<sup>6</sup>, regarding consent for transfusion, or alternatives.

The patient has comorbidity(s), which are contraindications to alternatives to transfusion. (Appendix B)

## **Documentation requirements**

The TNC will document on the Health Team Progress Notes all discussions with patients and will also indicate on the physicians order sheet that this medical directive has been instituted. The patients' HCP will be notified if any blood conservation strategies are initiated.

## Review/Evaluation Process (how often/by who)

This Medical Directive will be reviewed in six months and then yearly

#### **Related Documents**

#### References

See footnotes

<sup>&</sup>lt;sup>5</sup> Lakeridge Health Consent and Capacity Policies.

<sup>&</sup>lt;sup>7</sup> Eprex® Epoetin alfa. Product Monograph. (2003)

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Final Approval by: <u>Dr. D</u> Chair, M		Date:	an 25 05	

# Appendix A Exclusions for Epoetin Alfa Blood Conservation

#### Absolute Exclusions:

- Patients with uncontrolled hypertension
- Known sensitivity to mammalian cell-derived products, albumin or any component of the product
- The use of EPREX epoetin alfa in patients scheduled for elective surgery and not participating in an autologous blood donation program is contraindicated in patients with severe coronary, peripheral arterial, carotid, or cerebral vascular disease
- Recent myocardial infarction (within 3 months)
- Recent cerebral vascular accident (within 3 months)
- Patients for any reason cannot receive adequate antithrombotic treatment

#### Administer with Caution:

- Patients with conditions associated with thrombotic/vascular events should be closely monitored
- Epoetin alfa should be used with caution in patients with a history of seizures
- The safety and efficacy of EPREX therapy have not been established in patients with a known history of underlying hematologic disease (e.g., sickle cell anemia, myelodysplastic syndromes, or hypercoagulable disorders).
- EPREX® epoetin alfa should be administered with caution to patients with a history of gout.
- Increase incidence of thrombotic vascular events in cancer patients.

**Oncology surgical patients:** A surgical patient with a diagnosis of cancer defined by being on active, completion of active systemic treatment within 6 months of expected date of surgery or surgery as a result of documented tissue biopsy. For this patient population, if hemoglobin increases more than 10 g/L in a two-week period or if hemoglobin exceeds 120g/L, the dose should temporarily be reduced by approximately 25%. If hemoglobin exceeds 130 g/L, doses should be withheld until hemoglobin falls to 120 g/L and then reinstate at the dose approximately 25% below the previous dose.

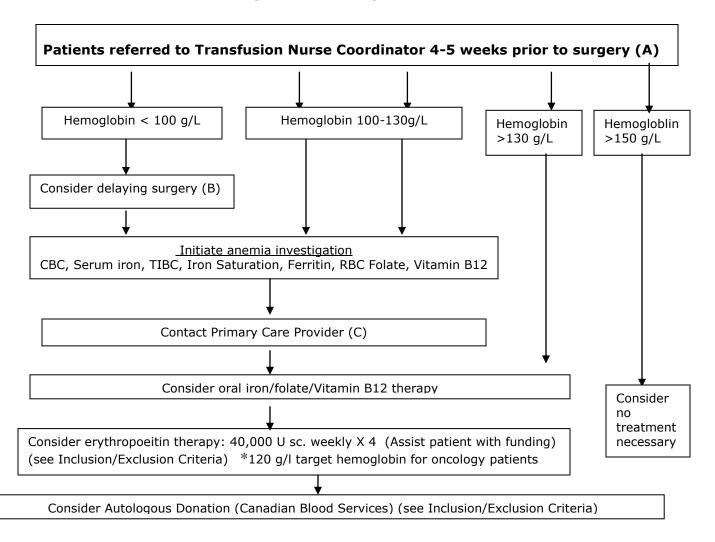
#### **Patient Eligibility Criteria for Autologous Blood Donation**

Patients must meet certain general donor criteria for safe, repeated phlebotomy.

- Age between 17-75 years, donors less than 17 years of age will be considered if weight is over 40 kg. or 90 lbs.
- Weight greater than 40 kg. or 90 lbs. for standard donation to be taken
- Hemoglobin above 120 g/L (will be determined at each donation)
- Blood pressure maximum systolic 200 minimum systolic 90 maximum diastolic 110 minimum diastolic 50
- No history of convulsions
- Not pregnant
- No history of coronary artery disease or ischemic cerebrovascular disease
- No history of infection or diarrhea in the past four weeks
- No dental work within 3 days of donation
- Course of antibiotic treatment must be completed prior to start of donation
- No history of Hepatitis A, B or C
- Absence of history of HIV

# Appendix B Lakeridge Health Perioperative Blood Conservation Program

## **Management of Perioperative Anemia**



- A) Transfusion nurse will provide patients with health teaching regarding iron therapy, erythropoeitin, potential transfusions and blood conservation strategies.
- B) Surgical postponement to be determined by surgeon and/or family physician.
- C) Primary Care Practitioner will receive notification of enrolment in blood conservation program

#### References:

- 1. Epoetin Alpha product monograph. (2004)
- 2. Perioperative Blood Conservation Surgical Algorithm. (2003)
- 3. St. Michael's Hospital Perioperative Blood Conservation Program: Management of Perioperative Anemia. (2002)