

# Blood Management Information

## BLOOD MANAGEMENT SERVICE

### What is Patient Blood Management?

Blood Conservation or management is the appropriate provision and use of blood and blood products while using strategies to reduce or avoid the need for blood transfusion. By doing so, patient outcomes are improved.

### What is the History of Patient Blood Management?

Patient Blood Management emerged as a specialty service in Anesthesia and Surgery in the late 1990's following the 'Tainted Blood Scandal' in Canada<sup>1</sup>. Justice Krever made several key recommendations:

1. Patients should be made aware of the benefits, risks and alternatives to blood transfusion.
2. These discussions should occur well before a transfusion so that the patient has time to make an informed decision and have timely access to alternatives.

### Who Could Benefit from Patient Blood Management?

All patients can benefit from blood management strategies, especially elective surgical patients who:

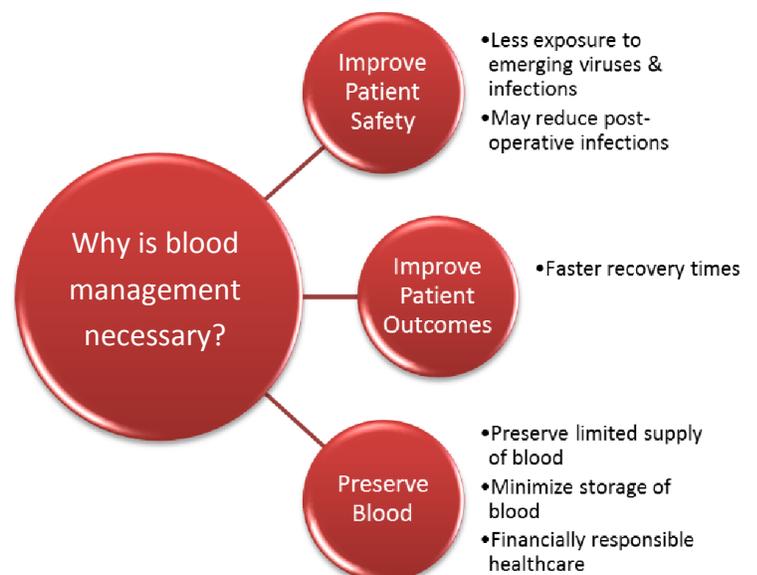
- Will have an expected high-blood-loss procedure;
- Have pre-operative anemia or have low blood volumes (i.e., are small in size)
- Have difficulties obtaining matched blood; or
- Have objections to transfusion.

### What Approach is Taken by the Blood Management Service?

Patients are referred to the Blood Management Service by self-referral, or by the surgeon/family doctor. Patients are assessed for eligibility and availability of alternatives. Education is provided and recommended alternatives are discussed with the patient. Alternatives are provided with the consent of the patient.

### What Roles Do Other Health care Team Members Play in Patient Blood Management?

- Family doctors are responsible for anemia recognition and management.
- Surgeons are responsible for special surgical techniques and equipment to reduce blood loss.
- Anesthesiologists are responsible for specialized peri-operative techniques that reduce blood loss.



- Nurses, pharmacists, therapists and office assistants provide supportive care.
  - Canadian Blood Services collects and supplies blood.
  - The Blood Management Service team collaborates with all of these members to provide patients with optimal care.
- Pre-Operative Strategies to Support Patient Blood Management:**
- d) Erythropoietic Stimulating Agents (ESA) - erythropoietin is a hormone that stimulates production of red blood cells in your bone marrow.
  - Pre-donation of blood (PAD) is a strategy that is **ONLY** recommended for patients at high risk of transfusion. It should be coordinated by the Blood Conservation Service to ensure you are not anemic prior to surgery.

A combination of these strategies **may** be used.

- Check your blood count early. Have a complete blood count (CBC) taken. If you are anemic, find the cause. Is it treatable?

There are many causes of anemia; discuss with your physician.

- If you are anemic, the following medications may be used to raise your blood count:
  - a) Nutritional support (dietary iron).
  - b) Iron therapy (oral or intravenous) - a mineral essential for the formation of red blood cells.
  - c) B12, Folic acid, Vitamin C—vitamins necessary for red blood cell production.

*1 <http://www.hc-sc.gc.ca/ahc-asc/activit/com/krever-eng.phph>  
 2 UpToDate (2015). Surgical blood conservation: Blood salvage  
 3 CMAJ (2008). Blood conservation strategies to reduce the need for red blood cell transfusion in critically ill patients*



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