

Blood Conservation Information

Blood Conservation Service

What is Blood Conservation?

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 Blood Conservation?

Blood Conservation emerged as a specialty service in Anesthesia and Surgery in the late 1990's following the 'Tainted Blood Scandal' in Canada¹. Justice Krever made several key recommendations:

1. Patients should be made aware of the benefits, risk 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.

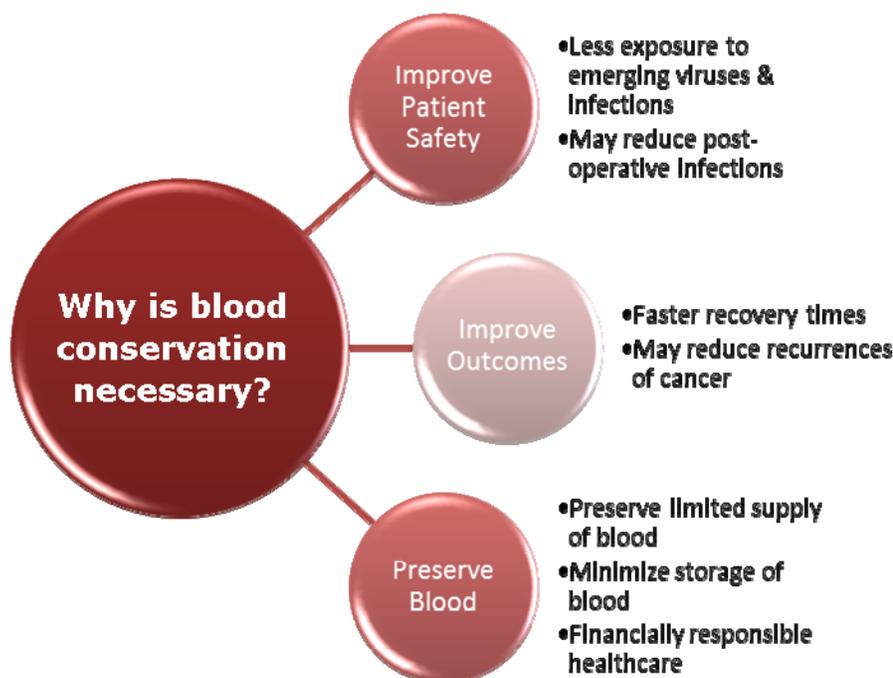
Which Patients Could Benefit from Blood Conservation?

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

- will have an expected high-blood-loss procedure,
- have preoperative anemia or have low blood volumes (i.e., are small in size),
- have difficulties with obtaining matched blood, or
- have objections to transfusion.

What Approach is Taken by Blood Conservation Service?

Patients are referred into the Blood Conservation 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 on the consent of the patient.



What Role do Other Health Care Team Members Play in Blood Conservation?

- 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 Conservation Service team collaborates with all of these members to provide patients with optimal care.

- 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.
 - d) ESA (Erythropoietic Stimulating Agents) – a hormone that stimulates production of red blood cells in your bone marrow.
- Predonation of blood (PAD). This strategy is recommended **ONLY** for patients at high risk of transfusion. It should be coordinated by the Blood Conservation Service to ensure that you are not anemic prior to surgery.

Pre-Operative Strategies to Support Blood Conservation

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.

1 <http://www.hc-sc.gc.ca/ahc-asc/activit/com/krever-eng.php>



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