



The Columbia Hip Surface Replacement Blood Management Program

1. Initial screening of hemoglobin
2. All patients with a hemoglobin below 13 are prescribed Niferex Fortis 150 mgs bid at least one month prior to surgery
3. Recheck hemoglobin in 1 month
4. If hemoglobin is above 13, continue iron until surgery; for bilateral or Jehovah's Witness patients, hemoglobin must be above 15
5. If hemoglobin is below 13 prescribe Erythropoietin (EPO)
 - a. Preferred program: 40,000units SC weekly on pre-operative days -21, -14, & -7 and 40,000units in post anesthesia care unit (PACU) the day of surgery. If hemoglobin is below 10 give 5 injections starting pre-operative days -35, -28, -21, -14, & -7 and 40,000units in PACU.
 - b. Rapid program: 20,000 units SC daily for 10 days prior to surgery OR 40,000 units on pre-operative days -10, -7, and -4.
6. Continue Niferex Fortis 150 mgs bid for 1 month post op
7. Blood recovery intra-operatively via the cell saver for those patients who received EPO therapy, those who undergo bilateral hip resurfacing, and patients who are Jehovah's Witness.
8. Use of tissue Link's Aquamantys to decrease post operative blood loss
9. Avoid transfusion unless the Hemoglobin is less than 7, or the patient is symptomatic.
10. No blood thinners post op for Jehovah's Witness patients (inform patient of higher risk of DVT)

Total hip and knee replacement is associated with blood loss often mandating a blood transfusion post operatively. Autologous (Your own) blood donation (ABD) in the past was considered the safest blood for those undergoing a total joint replacement, yet it compromises hemoglobin levels, especially in those patients that are anemic. Erythropoietin (EPO) has been shown to increase red blood cell count as well as hemoglobin preventing an allogeneic blood transfusion. Studies have shown that an EPO program is superior to autologous blood donation when trying to prevent non autologous blood transfusion.

With our protocol used for primary MIT HSR and THR as well as for bilateral HSR we have found it necessary to transfuse patients in less than 1% of cases.