

Periodic data review assures sustainability of blood management programs

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Introduction:

Initial success in blood management can be difficult to sustain due to ineffective process change, loss of champions, emergence of competing initiatives and resource reallocation. We postulated that periodic data analysis and review would be effective in sustaining blood management programs and also facilitating continuous improvement.

Methods:

We evaluated the ability of a blood management business intelligence portal (IMPACT Online®, Haemonetics®, Braintree, MA) to sustain improvements in transfusion practice at four US hospitals. This tool provides detailed information that was examined regularly to track results and identify opportunities for further progress. Each of the four hospitals used education and data sharing to reduce preoperative autologous donation (PAD) for patients having orthopedic surgery. Two hospitals also adopted algorithms to reduce transfusions for patients having cardiac surgery. For each of the programs we collected data for a six month period prior to the intervention six months during process change and two consecutive six month intervals following implementation.

	Baseline	During Implementation	Follow up Months 1-6	Follow up Months 7-12
	PAD Transfusion Rate (%) for Joint Replacement Patients			
Hospital A	42.4%	18.6%	2.7%	2.6%
Hospital B	43.5%	26.8%	11.6%	8.3%
Hospital C	21.9%	18.7%	11.0%	1.8%
Hospital D	30.3%	16.5%	3.4%	2.0%
	RBC Utilization (units/patient) for Patients Having CABG			
Hospital A	2.81	2.06	1.50	1.38
Hospital B	3.88	2.10	1.96	1.79

Results:

Dramatic reductions in the use of PAD were achieved in each hospital. These improvements were not only sustained but continued during follow up. Similar success and sustainability was seen in the cardiac surgical interventions as reflected in decreased RBC utilization (units/patient including untransfused patients) for patients having coronary artery surgery (CABG).

Conclusions:

- Regular analysis and sharing of detailed data is effective in sustaining blood management programs.
- To assure long-term success, patient blood management programs should include a strategy for obtaining and reviewing appropriate data.