

# Physician Education Express



## Patient Blood Management (PBM) Program

**Audience:** Physicians, Residents, Nurse Practitioners, Physician Assistants, and Nurses  
**Education Level-** **Yellow**

January, 2021

### Summary:

Blood products are precious, scarce, and expensive. Data suggest that as many as half of all transfusions might be unnecessary or avoidable, and overutilization of blood contributes to patient harm. Transfusions are associated with a higher incidence of infections, renal injury, pulmonary injury, and mortality. **Blood transfusion is one of the most common medical procedures performed at IU Health, with approximately 48,000 transfusions administered annually.**

In response, IU Health has launched a comprehensive patient blood management initiative in partnership with Accumen. A system-wide, multidisciplinary Patient Blood Management Council (PBMC) has been created to examine transfusion practices across IU Health with a focus on reducing avoidable transfusion and improving patient care.

The initiative has the following goals:

- Improve evidence-based transfusion practices and transfusion safety
- Reduce variation in clinical care
- Optimize recognition, diagnosis, and management of anemia
- Minimize anemia and blood loss

Beginning in January 2021, updated transfusion guideline dissemination, broad-scale education, and roll-out of transfusion analytics will occur across the system. The initial phase will focus on Red Blood Cell (RBC) transfusions. After a review of baseline data and benchmarks from over 300 hospitals nationally, the PBMC has set system goals for 3 well-established RBC transfusion metrics in 2021: Increase the number of units transfused at a hemoglobin below 7 g/dL, decrease the number of units transfused at a hemoglobin above 8 g/dL, and increase the number of single-unit RBC transfusions.

	Accumen Database 50 <sup>th</sup> Percentile	Accumen Database 75 <sup>th</sup> Percentile	Accumen Database 90 <sup>th</sup> Percentile	IUH Baseline (Jul 2019-Jun 2020)	IUH Q3 2020	IUH Oct-Nov20	IUH Year 1 Goals
% Hgb < 7.0	56%	67%	72%	57%	61%	62%	67%
% Hgb ≥ 8.0	11%	8%	5%	21%	19%	19%	11%
% Single Unit	69%	76%	87%	66%	68%	72%	76%

The PBMC is excited to move forward on this work and the positive outcomes it can bring to our patients. Your support and engagement will be key to the success of this important patient safety and quality initiative.

### Highlights

#### Key Messages:

- **Transfusion is a transplant** - While transfusions save lives, these liquid “transplants” impact short- and long-term patient outcomes. Unnecessary and avoidable transfusions cause measurable harm.
- **Less is more for transfusions** - The best evidence indicates a more restrictive approach (Hgb threshold < 7 mg/dL with evaluation of symptoms/anemia tolerance) not only saves blood but also saves lives.
- **Why give two when one will do?** - In the absence of acute hemorrhage, red blood cell transfusions should be ordered as single units followed by a clinical reassessment prior to any additional transfusions.