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Linda Miller, former Laboratory Director (left) and Yvette Dias, Blood Bank Technical Specialist

Results have been outstanding since Marin General Hospital, Greenbrae, CA, engaged Columbia Healthcare Analytics (CHA), Inc. in 2011 to assist with blood use reduction. In fact, the hospital has become one of the United State's topperforming hospitals in the area of blood management.

Since embracing CHA's proprietary External Review as a Service (ERaaS[™]) program, Marin General Hospital's red blood cell use decreased 50%, from 400–500 units to 200–250 units a month. Plasma transfusions declined from 408 per quarter to 61, and the facility stocks 25% fewer units overall. The hospital estimates monthly blood supply bills have dropped from \$170,000 on average per month to as low as \$80,000.

Success with the ERaaS[™] program is based on CHA's use of patient case management to mentor each physician on ways to optimize patient care and reduce medical errors. ERaaS[™] transforms traditionally ineffective, adversarial peer review into an educational mentoring process while minimizing work for hospital staff.



Savings & Benefits at a Glance

- Approximately 43% reduction in monthly expenses
- Approximately 33% reduction in RBC units
- Approximately 50% reduction in plasma (FFP) transfusion
- Fewer staff needed at blood banks
- Improved physician education
- Better patient engagement
- Greatly reduced work for blood bank and hospital staff

Marin General Hospital Where Reduced Blood Use Benefits Patients, Physicians and the Bottom Line

When staff at Marin General Hospital advocated using Columbia Healthcare Analytics (CHA) to reduce blood use in 2011, they knew it would take some convincing. Even though the hospital successfully engaged with many consultants, implementing the program would require an initial monetary investment. What they didn't realize is how working with CHA would transform the way the hospital uses blood and engages both patient and physician in the treatment process. Four years later, those who pushed to use the CHA system are thrilled with the results.

"Before CHA, our blood costs just kept going up and up," according to Linda Miller and Dr. Paul Wasserstein, director and medical director, respectively, at the time. They sold hospital administrators on CHA along with Yvette Dias, Blood Bank Technical Specialist.

"Even though we had a really good blood contract, our costs were almost \$170,000 each month," Miller says. "We were spending close to \$2 million annually without much hope of changing." The hospital also used around 400–500 units of red blood cells a month.

Now, monthly blood costs are \$72,124 per month on average, and use of red blood cell units are down to 200– 250 per month, a 30% cost reduction. Marin General Hospital now transfuses approximately 50 plasma units a month instead of 97, and stocks 25% fewer blood units.

Ease of Implementation

Within three months of contracting with CHA, Marin General Hospital launched the blood-use reduction program. Dias says it took less than two months before they started seeing major shifts.

"The first month of implementation was a bit challenging because we had a manual medical record system, but CHA was a great support," Dias says.

Not only has Marin General Hospital become one of the country's top-performing hospitals in the area of blood management, but reaching another 20% in blood use reduction is likely as more unnecessary blood transfusions are eliminated.

Physician/Patient Engagement

In order to reduce blood and plasma usage, CHA worked with Marin General Hospital staff to revise the criteria for transfusion. Implementing the new criteria required increased communication with physicians and surgeons, a process the Marin General Hospital team still feels is important to the success of the blood reduction program. "Some of the physicians from the ER and OR not only transfused less, but the program spurred them to look at alternatives such as adhesives rather than blood units," Miller says regarding the program's initial benefits. "They began to consider perfusion and ways they could avoid using plasma, such as using Vitamin K."

While there is more work to be done to educate physicians, Dias says the proof of success lies in the fact that several surgeons hardly use any blood these days. She credits CHA's Dr. David Jadwin for his assistance in educating physicians. "We have one surgeon who wanted all red cells and two platelets, among other requirements, for all of his surgeries," she says. "Now he considers other options first in all cases."

As Marin General Hospital moves into the future with CHA, both organizations look forward to new strategies to measure physician engagement, as well as ongoing mentoring of physicians on their actual case management. This will further improve blood use and patient care.

About Columbia Healthcare Analytics, Inc. Our Vision

To build a uniform external review network that engages all providers to perform collaborative utilization and medical peer review through an educational, standardized, objective, and critical process.

Our Mission

To advance quality and economic efficiency of the healthcare industry through innovative, analytical approaches to utilization and medical peer review that educate physician and non-physician providers to minimize future errors and optimize patient care in a very short time.

Our Process

ERaaS[™] is fully HIPAA-compliant, can be implemented rapidly, does not require special electronic health record processing, permits 100% chart review with educational feedback directly to physicians and reduces work for hospital staff. ERaaS[™] evaluates all blood components (not just PRBCs) and all aspects of blood management (not just blood use appropriateness). Our performance is unmatched by any other known quality improvement process. References are available on request.

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