



CASE STUDY

Morristown Memorial Hospital's collaborative effort reduces intraoperative red blood cell use by 78% in one year.

► **MORRISTOWN MEMORIAL HOSPITAL, MORRISTOWN, N.J.**

Renowned for its breadth of expert cardiac services, 693-bed Morristown Memorial Hospital performs more heart surgeries than any other New Jersey hospital and the second-most heart surgeries in the New York metropolitan area.

AT A GLANCE

Maintaining the status quo is not a concept with which the expert physicians and staff at Morristown Memorial Hospital's Gagnon Cardiovascular Institute feel comfortable. Continually working to improve cardiac care is the only way of life this staff understands and is a primary reason why Morristown Memorial Hospital is recognized by Thomson Reuters as one of the top 100 hospitals in the nation for cardiovascular care.

In mid-2008, Morristown Memorial began working with SpecialtyCare to introduce new protocols and technology to the perfusion department, reducing intraoperative blood use.

John M. Brown, M.D., chief of cardiovascular surgery, was hesitant about rocking the boat by bringing SpecialtyCare into the fold. "We've always had a tremendous team approach here at the Gagnon Cardiovascular Institute, and my last perfusion team was with us for 15 years." But after a year of working with SpecialtyCare, he agrees that the clinical outcomes certainly demonstrate a success story in the making.

Morristown Memorial's rate of intraoperative red blood cell (RBC) use stood at 25 percent, while the national benchmark rate was measured at 36 percent. One year later, Morristown Memorial's rate of intraoperative RBC use had dropped significantly to just 5.4 percent, while the national benchmark remained considerably higher at 28 percent. The

hospital's open-heart team was able to achieve these remarkable results while preserving red cell mass, as demonstrated by a steady increase in lowest intraoperative hematocrit measurements from 24 percent to 28 percent during the same time period.

COLLABORATING TO IMPROVE PATIENT OUTCOMES

Together, Morristown Memorial and SpecialtyCare have worked to bring new protocols to the forefront of care that ultimately improve patient outcomes. "The measures we've taken to decrease the amount of blood transfusion intraoperatively have centered on lower-prime circuits for the heart/lung machine and intraoperative autologous donation," says Brown. "We then reinfuse this fresh blood at the end of the case, so we have better coagulation factors coming back to patients for hemostasis at the end

While the cost of a unit of blood varies depending on geographic location, the average cost is approximately \$500 per unit nationally — translating into a cost avoidance of approximately \$195,000 during SpecialtyCare's first year at Morristown Memorial Hospital.

of their operations, and there is subsequently less hemodilution.

"In addition, we have monitors and point-of-care testing equipment that allows for platelet function and coagulopathy testing. We've been

using them more liberally both preoperatively and postoperatively to help ascertain who might be coagulopathic and then to focus treatment for those patients.”

Reduced use of banked blood has also positively affected the hospital’s bottom line. “The average cost of a unit of blood varies, depending upon acquisition, storage and testing costs, as well as the indirect costs of sending someone to the lab to pick it up, checking it and administering it,” says Brown. “Obviously, we’re not here to preach ‘no blood.’ Blood can be lifesaving, but we’re trying to limit the amount of blood transfused as much as we can.”

JOINT COMMISSION RECOGNITION

Morristown Memorial recently obtained the Gold Seal of Approval™ Disease-Specific Care Certification from The Joint Commission for its ventricular assist device (VAD) program — receiving the best possible score in the process.

“The surveyors saw the strength and quality of this program, and it’s a very unique recognition given that we’re not a transplant center,” says Lynn Emond, manager of the Cardiac PACU, the General Surgical PACU and Perfusion Services at Morristown Memorial. “There are a very limited number of programs with this recognition that aren’t transplant centers.”

SpecialtyCare’s lead perfusionist at Morristown Memorial, Charles Yarnall, offered invaluable assistance during the Joint Commission’s survey. “Charles and the others on the perfusion team are incredibly knowledgeable on the use and management of these devices,” says Emond. “Charles is very articulate and was able to make the surveyors feel very comfortable as to the team’s knowledge level and competence.”

According to Brown, the Disease-Specific Care Certification will undoubtedly make a positive difference to the hospital’s heart failure program. “It means that our heart failure patients can now have mechanical support at this institution rather than go elsewhere.”

LOOKING TOWARD THE FUTURE

Emond says that SpecialtyCare’s perfusionists have integrated well with Morristown Memorial’s cardiac team. “We’ve been very pleased with the services that SpecialtyCare has provided, and we find them to be very collaborative — and together, we’ve been able to continue and improve upon the services we provide.”

While Brown is also pleased with the team’s collaborative achievements thus far, he looks toward an even more positive future. “SpecialtyCare has worked very well with the institution in keeping costs down. They’ve been an asset for us as we’ve moved forward with blood management, and an even bigger asset with our heart failure and LVAD patients. I’m expecting even greater things going forward.”



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