Clinical aspects of the six-point plan developed by the UPMC Patient Blood Management program include adherence to evidence-based transfusion practice, increased use of cell-salvaging technology, and preoperative anemia optimization. “Approximately one in four of our elective surgery patients at UPMC Passavant is anemic,” says Perry Doebler, director, the Center for Bloodless Medicine and Surgery at UPMC. “These anemic patients are more susceptible to the need for transfusion therapy. Correcting preoperative anemia constitutes a real opportunity for patient blood management,” adds Mr. Doebler.

A specific area of cooperation has been created between the Center for Bloodless Medicine and Surgery and the Division of Cardiac Surgery at UPMC Passavant to increase awareness and knowledge of evidence-based transfusion practice, with the possibility of improving the treatment of all types of patients — not just ones who refuse blood transfusions. “Usage of blood for cardiac surgery at UPMC Passavant has dropped dramatically in the last couple years. Our statistics show a 40 to 50 percent reduction in blood products after adjustments to reflect the change in patient volume,” says Mr. Doebler.

By working closely on blood conservation issues with the Center for Bloodless Medicine and Surgery, cardiac surgeons at UPMC Passavant have developed a pattern of preoperative optimization that results in patients’ being better prepared overall for surgery. “In order to shorten recovery times and hospital stays, we have several ways to optimize patients before open heart surgery. One way is to correct preoperative anemia, which can reduce the need for transfusions,” says Chris Cook, MD, chief of Cardiac Surgery at UPMC Passavant.

Cardiac surgery cases have increased in difficulty over the last 20 years because of the aging patient population with more comorbidities. Single-artery bypass surgeries have become extinct, with most patients in the advanced stage of cardiac disease, and more commonly, in heart failure. “A better understanding of the complications associated with transfusions has led us to pursue a more comprehensive strategy for preparing all patients for open heart surgery, not just those patients who wish to avoid transfusions for personal reasons,” says Dr. Cook.

Other resources in this comprehensive new approach to patient care are minimally invasive valve repair and replacement techniques, which can be done for both mitral and aortic valves. “In addition to lessening pain and improving recovery, minimally invasive surgery has the added benefit of decreasing the need for transfusions,” explains Dr. Cook.

With mounting medical evidence correlating less blood given with shortened lengths of stay and better outcomes, UPMC Passavant’s attention to anemia, adherence to evidence-based guidelines, and utilization of minimally invasive surgery has resulted in fewer transfusions overall.

For more information on patient blood management, email bloodmanagement@upmc.edu, or visit BloodlessCenter.com. For more information on cardiac surgery, call 412-748-6HVI (6484) or visit UPMCPassavant.com/HVI.