New Blood Transfusion Standards Sought

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There's a lot of variation in how quick doctors are to order up a few pints — not in cases of trauma or hemorrhage, but for a range of other reasons. Anemia is common in older patients who may get a transfusion as an easy boost even when the anemia's too mild to matter, or instead of treating the underlying problem. Need open-heart surgery or another complex operation? There are steps surgeons could take to minimize blood loss instead of trying to replace it later. Now a government advisory committee is calling for national standards on when a transfusion is needed — and how to conserve this precious resource.

All the variability shows "there is both excessive and inappropriate use of blood transfusions in the U.S.," advisers to Health and Human Services Secretary Kathleen Sebelius concluded earlier this month. "Improvements in rational use of blood have lagged." Blood banks welcome the idea, important as they try to balance how to keep just enough blood on the shelves without it going bad or running short. "Better patient care is what's being advocated here," says Dr. Richard Benjamin, chief medical officer of the American Red Cross. "If a transfusion is not necessary, all you can do is harm."

The U.S. uses a lot of blood, more than 14 million units of red blood cells a year. Between 1994 and 2008, blood use climbed 40 percent, Benjamin told the HHS Advisory Committee on Blood Safety and Availability. In many years, parts of the country experienced spot shortages as blood banks struggled to bring in enough donors to keep up. Surprisingly, blood use dropped a bit with the recession, roughly six percent over two years, Benjamin says. He couldn't say why. That dip has leveled off, but specialists say demand is sure to rise again in coming years as the population rapidly grays and people who once were prime donors become more ill and frail.

Right now, overall donation levels are good with one exception, Benjamin says: There's a big need for more Type O-negative blood, especially as banks prepare for the usual summertime donor drop. Few donors are Type O negative, but it's compatible with all other blood types and hospitals have begun using more of it in recent years.

One study published last fall tracked more than 100,000 people who underwent open-heart surgery, a transfusion-heavy operation. Just eight percent of those patients received transfusions at some hospitals, while a startling 93 percent did at other hospitals. But survival wasn't significantly different at hospitals that used more blood than at hospitals that used less. That's important, because transfusions are not risk-free. While the risk of HIV or other viruses is very rare in blood today, people also can experience allergic-style transfusion reactions and other

complications, sometimes fatal ones.

Another study last fall examined Medicare patients who received blood for various reasons over a 10-year period, and found those who live in the South are the most likely to get a transfusion and those who live in the West are the least likely. Overall, the U.S. uses about 49 units of blood for every 1,000 patients, substantially more than Canada or Britain where those transfusion rates are in the 30s, Benjamin says.

One solution that the HHS advisers urged the government to explore: Some hospitals have begun what's called "patient blood management," instituting their own guidelines on when a transfusion is avoidable. Consider Eastern Maine Medical Center. Transfusion chief Dr. Irwin Gross described how doctors now order blood via a computerized form that warns if they're about to deviate from the guidelines and tracks who uses the most.

Planning a hip replacement? Patients are supposed to be checked for anemia before elective surgery is scheduled, so they can be treated with iron or other therapies beforehand and lower chances of a post-surgery transfusion. For non-surgery patients, other guidelines spell out when anemia is bad enough to warrant a transfusion or when a patient should just be monitored. In cardiac and back surgeries, equipment captures a patient's own blood and pumps it back right away, reducing the need for post-surgery transfusions.

The program reduced the amount of blood drawn just for laboratory tests, and limited when doctors can order multiple transfusions rather than checking first to see if one did the trick. The result: The Bangor hospital is giving blood to nearly half as many patients as it did in 2006, the year before the program began, and there are no signs of patient harm, Gross told the HHS committee. He calculated that the hospital saved $5.4 million over four years, due to buying less blood.

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