The plus and minus sides of Rh transfusions

Q It is common practice and declared community standard by our blood center that Rh-negative elderly patients and Rh-negative males over 55 receive Rh-positive blood for transfusion because Rh-negative donor blood is always in short supply and must be conserved for childbearing-age females and newborns. Many of these older patients live to develop antibodies and are, thus, in a potentially dangerous situation that mandates they be given Rh-negative blood because subsequent Rh-positive blood transfusions produce negative reactions.

Is it permissible to give Rh-positive blood to Rh-negative elderly patients and males over 55, given that it is likely to cause future problems? We have already encountered situations where Rh-negative patients who had been given Rh-positive blood for a previous elective procedure — and subsequently developed antibodies to that blood — experienced problems being transfused for emergency cardiac surgery.

A Your question actually hinges on the question of informed consent. The practice you describe is certainly a common, if not the prevailing, standard for the reasons that you indicate: Rh-negative blood is in short supply, and the most critical needs are for pregnant women and newborns. As long as your policies and procedures are in line with the accepted community standard, there should be relatively little legal risk, if proper standards of informed consent have been met in the process. Important to realize, however, is that standards of care sometimes change — not just because of medical practice, but also because of legal pressures. What is appropriate now may not be so in the future, especially with an aging population more likely to be exposed to transfusion and more likely to have multiple surgeries, some of them emergency, as they age.

Your question provides your institution with the opportunity to review its policies and procedures, to ensure that they do comply with community practices as well as American Association of Blood Banking standards. Such a review also offers an opportunity to involve several different members of the healthcare team to improve transfusion services and make your Rh-negative policies even more “bulletproof.” Start by doing a thorough evaluation of the standard of practice that applies to your facility, then, if necessary, solicit the opinions of experts in the field who are not a part of your institution. Documenting the medical basis for a policy is always the best way to begin.

Subsequently, you should examine how your institution obtains informed consent, which is the second half of the standard. Proper informed consent to medical treatment, including the consent of an Rh-negative patient to receive Rh-positive blood under certain circumstances, generally requires that the patient be informed of the risks, alternatives, and benefits. In the circumstances you describe, it may well be important for older patients undergoing elective procedures to understand that, if transfused with Rh-incompatible blood, they run a relatively small but real risk of developing antibodies that might later interfere with transfusion in more life-threatening circumstances. Such patients might decide to delay elective surgery, opt for blood-sparing procedures, assist in recruiting more Rh-negative donors, or provide autologous blood if appropriate.

Also important is to make certain that physicians and nursing staff understand the circumstances under which a switch to Rh-positive blood will be made for an Rh-negative patient so that they can assist in proper clinical management as well as the education and consent process. Such outreach can also help reduce the occasions on which a substitution must be made. A patient information sheet could be developed and made available to physicians and on the hospital floor to assist in obtaining proper consent.

Last, and certainly not least, this situation provides an opportunity for your institution to evaluate the frequency of transfusion of Rh-incompatible blood — as well as the incidence of antibody development — and determine whether there are alternatives to reduce the frequency of such transfusions and how best to see them implemented. A multidisciplinary committee looking at the problem from a variety of perspectives — including that of the prevailing standard of care and the legal risks that always accompany any transfusion — has the best chance of coming up with a tightly formulated but flexible policy that will help ensure that the fewest number of patients possible receive Rh-incompatible blood. □