warmed for 24 hours, but a significant loss was not detected except in blood stored longer than 21 days. Tolerances to temperature variation and mechanical stress tolerance are reduced when blood is stored for more than 14 days. (*Shields, C. E.: Temperature and Mechanical Effects on Stored Blood, Transfusion 9: 291 (Sept.) 1969.*)

HEPATITIS ANTIGEN The hepatitis antigen is a specific factor in the sera of patients with viral hepatitis and is detected in a simple two-dimensional immunodiffusion system which employs sera from patients receiving multiple transfusions. It is present during the early stages in more than 80 per cent of patients with both types of viral hepatitis, but not in patients with other forms of hepatic disease. The hepatitis antigen was found in 25 of 4,084 apparently-healthy blood donors. Fifteen recipients of blood from these hepatitis antigen-positive donors were followed a minimum of three months. Four of the 15 died of their underlying diseases within two weeks of transfusion. Of the 11 surviving recipients, seven developed typical clinical and laboratory signs of viral hepatitis, associated with the appearance of hepatitis antigen in their sera. The other four recipients remained well and without the antigen three to six months after transfusion. Sixty-one recipients of 484 units of antigen-negative donor blood were followed in the same manner. Only four cases of hepatitis, all lacking the hepatitis antigen, were observed in this group. This test appears to have great potential for the detection of infectious blood donors. (*Gocke, D. J., and Kavey, N. B.: Hepatitis Antigen: Correlation with Infectivity of Blood Donors, Transfusion 9: 287 (Sept.) 1969.*)

GREEN PLASMA IN BLOOD DONORS Recently, many female blood donors have had extremely green plasma. Elevated levels of ceruloplasmin, a blue-green plasma protein, are found in pregnancy, after estrogen administration, and with rheumatoid arthritis. Since the possibility existed that the greenness of plasma in the donated blood was related to estrogen usage, female blood donors were asked specifically whether they were taking oral contraceptive tablets. Ceruloplasmin levels in 15 units of blood whose plasma appeared extremely green were determined by an oxidase assay method. Twelve of the 15 units had prominently elevated ceruloplasmin, as much as two to three times the normal levels. Most of the green plasmas were from donors taking oral contraceptive pills with estrogen components. These green plasma units possibly may have deleterious effects, but at the present time the authors believe they are suitable for transfusion. A green color in plasma should no longer suggest only the presence of a *Pseudomonas* organism producing a green pigment. (*Wolf, P., and others: Green Plasma in Blood Donors, Transfusion 9: 288 (Sept.) 1969.*)

TRANSFUSION REACTIONS In answer to the question whether it is safer to transfuse a patient with blood of his own group after he has received five or more units of "safe" group O blood than it is to continue using group O, one expert answered, "I have personal knowledge of severe hemolytic transfusion reactions occurring when group B (or A) blood was given to patients of group B (or A) soon after they had received multiple transfusions of low-titer group O blood. The basis for their reactions was persistence of transfused antibody, which could be demonstrated in the patient's plasma. The patient's blood had been, in effect, converted temporarily to group O and had reacted accordingly and sometimes disastrously when he was transfused with blood of his original group." Another expert answered the same question by stating that in determining when group-specific blood can be used, the important thing is not the number of units of group O blood that were transfused, but rather the presence or absence of circulating antibody in the recipient. Crossmatches between freshly drawn blood from the patient and group-specific donor blood should be done. If these (including the antiglobulin technique) are compatible, the unit can be transfused. (*Busch, S.: Questions and Answers, Transfusion 9: 166 (May) 1969.*)

Respiration

LUNG FUNCTION AFTER CARDIAC SURGERY Pulmonary diffusing capacity