

cent dextrose in isotonic solution of sodium chloride. The buffy coat or gel which lies between the packed red blood cells and the supernatant plasma and which consists of white blood cells, platelets and fibrin is left behind in the bottle which was used for collecting the blood. The final suspension contains approximately 88 per cent of the red blood cells obtained from one donation of 500 cc. of whole blood. The cells are from 24 to 48 hours old when they are aspirated into the dispensing bottles. They are then stored in a refrigerator at 2 to 5 C. for a maximum period of seventy-two hours, after which time those not used are discarded. The suspension of red blood cells is typed and cross matched with the serum and cells of the recipient and is also examined for hemolysis, which, if present, is sufficient reason for discarding the suspension. An analysis of the suspension reveals averaged values as follows: a hemoglobin of 17 Gm. per hundred cubic centimeters, a red cell count of 6,180,000 and a white cell count of 2,000 per cubic millimeter. . . . It has been estimated that 50 per cent of the patients requiring blood transfusions in a large hospital probably need only red blood cells; and, since large quantities of these red blood cells are now being discarded in the preparation of plasma, it is logical that they be utilized as suspensions in the treatment of anemia. In time of war, when hospital beds are not plentiful and convalescence can be hastened by the administration of these red cell infusions, their use is of great value. At the Philadelphia Naval Hospital, 116 infusions of red blood cells have been administered in this series with only two reactions, an incidence of 1.72 per cent. The data obtained from a careful study of 72 of these infusions in 48 patients were tabulated. The average rise in hemoglobin for each 300 cc. suspension was approximately 1 Gm. and all but 4

of the cases showed clinical improvement. The results show that a waste product may be converted into an effective therapeutic agent in the treatment of anemia." 6 references.

J. C. M.

LOZNER, E. L., AND NEWHOUSER, L. R.: *Studies on the Transmissibility of Malaria by Plasma Transfusion*. Am. J. M. Sc. 206: 141-146 (August 1943).

"It is the purpose of this communication to report the results of 35 administrations of plasma prepared from donors with active malaria, and preserved by different techniques for varying lengths of time. . . . The donors were patients with active therapeutic quartan and estivo-autumnal malaria. . . . In 20 administrations of thawed plasma which had been 'shell' frozen in a solid carbon dioxide-alcohol bath, no transmissions of malaria were observed. In 3 administrations of stored plasma which has been dried from the frozen state, no transmissions were observed. In 2 administrations of plasma preserved in the liquid state for 1 day, there was 1 definite transmission and 1 probable transmission. In 5 administrations of plasma preserved in the liquid state for 1 week there was 1 very doubtful transmission. In 5 administrations of plasma preserved in the liquid state for 2 weeks no transmissions were observed. It may be concluded that the likelihood of transmission of malaria by any plasma program, regardless of type of preservation used, is practically nonexistent." 15 references.

J. C. M.

JENKINS, H. R.; SCHAFER, P. W., AND OWENS, F. M., JR.: *Guide to Replacement Therapy for Loss of Blood by Plasma*. Arch. Surg. 47: 1-3 (July 1943).