Wd'AM/SB

11th March, 1960.

Dr. W. Weiner,
Regional Transfusion Centre,
15 Ampton Road,
BIRMINGHAM, 15.

Dear Dr. Weiner,

Homologous Serum Jaundice

Thank you for your letter of 3rd March, 1959, about the donors with raised plasma bilirubin levels.

The short answer is that these donors should not be used with one qualification I shall mention below.

As you know, the relationship between abnormal hepatic function tests and the carrier state is by no means clear. I think it is fair to summarize the present position by saying that screening by a battery of hepatic function tests would probably eliminate a number of carriers, but at the same time would eliminate a number, probably a greater number, of perfectly harmless donors and also miss others who are carriers, but have normal responses to hepatic function tests (see: Fitch et al., Amer.J.Clin.Path, 1955, 25, 158; J. Stokes et al, J.A.M.A., 1954, 154, 1059; J.R. Neefe et al., J.A.M.A., 1954, 154, 1066; R. Murray et al , J.A.M.A., 1954, 154, 1072; R.F. Norris et al., J.A.M.A., 1956, 160, 1118; E.R. Jennings, et al., Amer.J.Clin.Path, 1957, 27, 489; M. Strumia et al., Amer. J.Clin.Path., 1958, 30, 133; J.B. Alsever, New Eng.J.Med., 1959, 261, 383). Alsever criticises severely the papers of Strumia et sl. and Jennings et al.

All these studies have been done with a battery of tests, and there seems to be a possible association between thymol turbidity,

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thymol flocculation and sulphobromophthalein retention tests. Norris et al. in their study of five proved and seventeen suspected carriers, suggest that the latter test is perhaps the best one; unfortunately, it is inapplicable as a screening test. They also say, "On the other hand, the fact should again be emphasized that concentrations of serum bilirubin and urine urobilinogen were seldom increased above normal in proved carriers and that increased bilirubin in urine could not be demonstrated at any time in any of the carriers (proved or suspected) except during the period of frank jaundice of donor 7."

One of the difficulties is that, apart from congenital spherocytosis and Laënnec's cirrhosis (which you have probably ruled out in this group of donors), there is the group of congenital hyperbilirubinaemias, to which some of your donors may belong. Did you, in your tests, differentiate between conjugated and unconjugated bilirubin?.

I have spoken to Professor Sherlock. She agrees that donors with raised bilirubins should not be used. She added, however, that if the thymol flocculation test and SGO-T level were normal, these donors would, possibly, be safe.

In the present state of our knowledge, I do not think one can accept any person as a donor who shows apparent evidence of hepatic abnormality.

Yours sincerely,

W. d'A. Maycock.