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## Communicable Disease Report

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WEEK 10 - W/E 11th March, 1983

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CDR 83/10

### ACUTE HEPATITIS B INFECTIONS IN BLOOD DONORS

HBsAg was detected in sera from two male donors. Both had donated on previous occasions and had been repeatedly negative by two sensitive HBsAg screen tests<sup>1</sup> (BPL RIA and modified RPHA). These 'old donors' were therefore immediately considered likely to be undergoing current HBV infections. Liver enzyme determinations are performed routinely on the serum samples of all donors found to be HBsAg positive and these two donors were found to have elevated levels (GOT 240 iu/l and GPT 660 iu/l in one donor and GOT 87 iu/l, GPT 180 iu/l in the other; upper limit of normal is 30 iu/l). Confirmation tests on the original donation and tests on follow-up samples (performed at the Department of Microbiology, Middlesex Hospital W1) showed that both donors had anti-HBc (of the IgM specificity) in their initial serum samples. One donor seems likely to become a long term HBsAg carrier following a mild illness. The other donor, a homosexual, was anti-HBc IgM negative on follow-up and appears to have had an inapparent infection.

It is unusual to find two HBsAg positive donors in succession who are undergoing acute infections. However, we have reported previously<sup>2</sup> that 15% of the HBsAg positive donors that we follow-up are undergoing acute infections and that usually they are young British males.

Whenever a previously 'negative' donor is found HBsAg positive, the likelihood of a current acute infection should be considered. Notification and advice to the donors concerning their own condition and their likely infectivity for sexual partners can then be given accordingly.

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#### References

1. Cameron CH, Combridge BS, Howell DR, Barbara JAJ. A sensitive immunoradiometric assay for the detection of hepatitis B surface antigen. J Virol Meth 1980; 1: 311-23.
2. Barbara JAJ, Briggs M. Follow-up of HBsAg positive donors to determine the proportion undergoing acute infections. Transfusion 1981; 21: 605-06.

### HEPATITIS

**Hepatitis A (IgM)** 61  
F 5y who died (Swansea PHL). Outbreaks:  
family: F 10y, 9y, 8y, 3y siblings (Leeds PHL). History of contact 5: family 4, holiday camp 1 (Liverpool, Plymouth, Reading, Taunton PHLs, London Northwick Pk H). Recently abroad 9: India 3, S Africa, Kenya, Morocco, Nigeria, Pakistan, Turkey/Australia (Leicester 2, Stoke 2, Cambridge, Exeter PHLs, London Hammersmith RPMS, Northwick Pk H, Westminster H).

**Hepatitis B antigen** 63  
Acute hepatitis with HBsAg 26  
Chronic hepatitis with HBsAg 2  
Acute hepatitis with HBsAg  
M 19y hospital radiographer (diagnosed at London Middlesex H). M 30y with onset at same time as heterosexual contact (CDR 83/09),

both tattooed 4 months earlier by operator whose clients included drug abusers (Bristol PHL). M 19y whose heterosexual contact had hepatitis (Bristol PHL). F 17y whose cousin had hepatitis B (Cambridge PHL). M 44y, 29y, 25y homosexuals (Poole PHL, London Croydon Gp Lab, Hammersmith RPMS). M 30y, 28y, 20y, 20y, 19y, 19y, drug abusers (London St Thomas H 2, Stoke, Wolverhampton PHLs, London St Georges H, St Marys H).

**HBsAg carriers** 35  
M 61y, M 53y with hepatoma, F 32y candidate for cardiac surgery, F 22y whose heterosexual contact had acute hepatitis B CDR 83/05, M 18y homosexual drug abuser, 3 STD clinic patients (1 homosexual) and 9 identifications in mother and baby survey - 7 antenatal patients and 2 cord bloods.

#### Note

HBsAg positive blood donors without symptoms have been reported in the CDR as carriers. In future, symptomless donors with test results that indicate newly acquired HBV infections will be noted with acute hepatitis reports. Since week 82/12, in addition to the two donors reported above, seven patients with acute hepatitis B were reported to have donated blood during the probable incubation periods of their infections (Birmingham, Liverpool, Manchester, Preston 2, Sheffield PHLs, North London BTC).