

HEPATITIS B SERO-CONVERSION. OUR EXPERANCE

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Haemodialysis patients are screened for Hep B throughout their journey within Nephrology services. Is the screening robust and timely to identify, prevent and contain a reactivation of the infection?

A patient found to have a borderline positive Hepatitis B was negative in the months prior to retesting. However on retrospective testing he was found to be core antibody positive. The existing infection control was to a satisfactory standard; therefore it was considered that transmission to other patients was possible, but small.

A retrospective audit was carried out to identify the patients at risk. The at risk group were screened to identify for Hepatitis B status and level of immunity. All 'at-risk' patients were part of a surveillance programme with weekly testing for a period of 3 months in accordance with Department of Health guidance, in addition the none immune patients were offered vaccination. The Hep B status of clinical staff was also screened by occupational health. Patient movement was restricted in terms of Holiday arrangement and between satellite units. Patients were allocated specific machines, stations and chairs.

The index patient had no direct contact with other patients known to be Hep B positive; he had not been abroad and had not received any blood transfusions since 2005. There had been an in patient event in 2006 which was uneventful. There was no other likely source for his infection. During a period when the index patient was assumed to be infectious, he had been dialysed on up to 47 different machines making tracking of possible exposure to this patient difficult.

The number of patients with possible exposure was 230. All of whom were included in an enhanced surveillance programme of weekly HBsAg testing for a 3 month period. The initial sample from those patients would also be tested for AntiHBc, to look for natural immunity or evidence of past infection with Hepatitis. Patients with antiHBs levels >100 mIU/ml were excluded from further surveillance. Patients with antiHBs levels >10mIU/ml, but <100 mIU/ml were offered a booster (dose 40 mcg). Patient with antiHBs levels of <10mIU/ml were offered a rapid schedule of Hep B vaccine. It was felt that with the present levels of infection control the risk to other patients was not sufficient to consider the wide spread use of Hepatitis B immune globulin. Staff immunity levels (nursing, medical and technical) were sought from occupational health and any non-immune staff were identified for follow up.

This experience enabled us to review our practices and identify areas of change required. Screening test on admission was changed to include AntiHBc. An enhanced surveillance programme for Hepatitis B positive patients was established on a monthly basis as they may be more likely to 'reactivate' their infection. Each patient is allocated a dialysis station which is easily identified by number, with corresponding numbered machine, chair, table, and equipment. The external cleaning of all equipment was also changed from soap and water to Clear surf. All patients returning from holiday were allocated a dedicated machine in one unit/ area for a given period of time. PCT's to fund vaccination programme within secondary care.