

Unprotected People #18

Hepatitis B

Lack of prenatal screening for hepatitis B causes multiple tragedies for one family

The following case report of a mother who had a previous history of hepatitis B, but received no prenatal screening, serves to illustrate the importance of following the recommendation of the Advisory Committee on Immunization Practices to screen every pregnant woman during each pregnancy. Not only did this woman's baby die of fulminant hepatitis B infection, but when hepatitis B screening was done for the surviving family members, it was found that the mother, father, and the other two young children were all positive for HBV.

This case report is excerpted from an Immunization Action Coalition (IAC) educational piece entitled "Universal prenatal screening for hepatitis B," a piece that reviews neonatal transmission and screening rationale for health professionals. It was written for IAC by Deborah K. Freese, MD, pediatric gastroenterologist and member of the transplant unit at Mayo Clinic. She is also a member of the IAC Advisory Board. Written in 1993, this educational piece continues to be distributed because there are still health professionals who do not screen every pregnant woman for HBsAg during each pregnancy.

The excerpt from Dr. Freese's article follows:

An Infant with Fulminant Hepatitis B

The medical and economic costs of failing to screen for HBV can be illustrated on a more personal level by the case of a single infant recently cared for in the Twin Cities. This patient was the child of a middle class couple from a farming community in a neighboring state.

During her initial prenatal visit, the mother gave a history of having had hepatitis of some sort 20 years previously. She was told at that time that she had recovered from the disease and would subsequently be immune to further hepatitis infections. Despite the fact that a previous history of hepatitis would place her in the "high-risk" category, no prenatal HBV screening was done. Pregnancy and delivery

were uncomplicated, and the baby did well for the first two months of life.

At that time, the parents began noting feeding difficulties, irritability, and jaundice. Evaluation revealed severe coagulopathy, markedly elevated liver tests, and hypoglycemia. The infant was eventually referred for liver transplantation with the diagnosis of fulminant hepatitis B. The infant was admitted to the intensive care unit, received very aggressive medical management, and an urgent search for a donor was initiated. No suitable donor could be located, the child continued to deteriorate and died after two weeks from hepatic encephalopathy and herniation.

Hepatitis B screening was then done for the surviving family members. It was found that mother, father, and the other two young children were all positive for HBV. Mother and one child had significantly elevated liver tests and are undergoing further evaluation. It seems clear that had HBV screening been carried out, none of the children would have been infected and the death of the youngest could have been prevented.

The economic impact on the health care system from this one family alone is significant. It includes the costs of hospitalizations at two hospitals of the infant who died (approximately \$100,000), the immediate costs of evaluation and possibly therapy for the surviving child with evidence of chronic hepatitis, and the long-term costs of monitoring and observation of both chronically infected children. Had successful liver transplantation been possible for the infant, the costs of that procedure and lifetime immunosuppression would have further increased the costs.