life health worker who would be expected to see the infant in the community. A short period of training and re-orientation was done as requirement for a research study, to ensure uniformity and consistency in their assessment. However these ANM's/GNM's are expected to be fully trained in routine to perform these simple assessments.

Pulse oximetry was done by the study person B in all enrolled infants after completing the physical examination. He could use the information as an aid for making decisions. In the modern era of medicine, one would expect pulse oximeter to be ultimately available at all first referral units. This gadget was available at all sites and uniform methods were adopted by study persons B across all sites for making a decision regarding "need for admission". If indicated, initial laboratory investigations (serum bilirubin, glucose, chest *x*-ray) were done and a decision was taken within two hours by study person B for need of hospitalization. The quality of the diagnoses being made by study person B was ensured by an initial period of training, creating a manual of operations with standard definitions and an ongoing review of case records by a committee of senior investigators (pediatricians with more than 15 years experience) with regular feedbacks. For this purpose complete case records along with all relevant investigations were taken into consideration for providing feedback to study person B.

In addition, one of the useful secondary objectives of the study was to document in detail and precisely the possible range of specific diagnosis encountered at first referral units in infants <2 months of age. Hence, laboratory investigations were necessary to confirm the diagnoses and have reliable information.

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False Positive HIV -1 DNA PCR in Infancy

The prevalence of HIV infection in antenatal population in India ranges from .08% to 5%. As the rate of perinatal transmission is about 30%, it can be estimated that 56,700 newborns are infected with HIV each year(1). The seroprevalence among antenatal women is the most important indicator of prevailing HIV infection in the community. In this study 1768 pregnant women who attended the antenatal clinic at Sir Sundar Lal Hospital, Banaras Hindu University from March 2005 to August 2006 were screened for HIV infection after obtaining informed consent. Of these, 17 were HIV infected, indicating a seroprevalence of 0.96% which is alarmingly close to 1%, the benchmark for high prevalence.

Five of the HIV infected women consented for medical termination of pregnancy and 12 delivered during the study period in the hospital. Antiretroviral prophylaxis in pregnant women was based on CD4 counts, affordability and gestational age. 5 pregnant women with CD4 counts more than 250/μL (mean 428.7/μL) were offered protease inhibitor based HAART whereas 3 of them with CD4 counts less than 250/μL received two nucleoside reverse transcriptase inhibitor and nevirapine. Four were administered single dose nevirapine at the time of delivery. Zidovudine was included in the regimen in patients with hemoglobin more than 8 g/dL Except one, all were delivered by cesarean section. Newborns received single dose Nevirapine within 72 hours of birth. Mothers were counseled regarding risks of breastfeeding versus top feeding and none was breastfed. HIV DNA PCR was performed twice to diagnose infection in neonates. First test was performed within 48 hours and the second was performed at about 6 weeks. PCR results were positive for HIV virus in 3 neonates. These infants on follow up were asymptomatic and 4 have been tested at 18 months using HIV ELISA with two different antigen tests and one rapid test to confirm the diagnosis.

Surprisingly, all 3 PCR positive neonates were non-reactive to ELISA.

PCR has been shown to have more than 96% specificity and sensitivity of HIV in neonates(2). Our study on the contrary reports high false positivity of DNA PCR. Comparable results have been reported in another study(3). Hence, the dilemma of diagnosis of HIV in infancy persists. A standardized test is needed for timely and accurate diagnosis of HIV in infants.

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