

16. NICED-ICMR-JHU Collaborative Project:

Vaccine probe study to estimate the preventable burden of Hib meningitis and pneumonia among children in India - Part' A'.

Objectives:

This multicentric study (conducted simultaneously in Vellore and Chandigarh) aims at estimation of the burden of meningitis and pneumonia among young children in India caused by *Haemophilus influenzae* type b (Hib), and thus possibly preventable by the introduction of Hib vaccine. This preliminary phase tries to assess the feasibility of the main study, which will incorporate vaccination against Hib in a wide selected area. We are mainly evaluating the available infra-structural support for vaccination including cold chain maintenance, method for capturing children with study diseases at designated hospitals, and completeness and timeliness of immunization of the children in study areas.

Ongoing activities:

For the preliminary phase, we selected two PHC areas (Kalikapur and Langalberia) in South 24-Parganas district of West Bengal. The recruitment of children (below 2 years) was started in July 2005 and continued until December 2006. A total of 3248 children have been recruited. The hospital study was started in August 2005 and completed in March 2007. The purpose was to capture enrolled children admitted with study diseases; a total of 815 of these children were admitted in any of the five study hospitals with either pneumonia or meningitis. No case was detected to be blood culture positive for Hib; however, about 5% cases were positive for Hib from their naso-pharyngeal (NP) swabs. We also collected NP swabs from healthy children to assess Hib carriage by these children, which showed that about 6% of them carries Hib in their naso-pharynx. Although more than 80% children in the study area received three doses of DPT, very few of them (about 25%) received the doses in proper time. Currently, as recommended by the study monitoring team, we are in the process of gradual scaling down of activities - leaving only follow-up of enrolled children and data management activities to continue until September 2007.

NICED CULTURE COLLECTION (NICEDCC)

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National Institute of Cholerae and Enteric Diseases (NICED), Kolkata is doing extensive research on diarrheal diseases for more than a few decades. Recently this Institute has developed strain repository system consisting of enteric miscellaneous organisms.

In this microbial repository system, archiving of *Vibrio spp*, *Aeromonas spp*, *Shigella spp*, typhoid and non-typhoidal *Salmonella spp*, Diarrhoeagenic *Escherichia coli*, *Helicobacter pylori*, *Vibrio* phages, emerging new enteric pathogen(s) are included. In addition, cloning vectors that were either developed at NICED or received as gift from other institutes, host *Escherichia coli* strains those are important for molecular cloning were also archived.

The centre currently holds more than 1000 strains, which have been genetically and phenotypically well characterized. There are a lot of well-defined phenotypic forms having importance in bio-medical research. NICED Type Culture Collection (NICEDCC) for enteric pathogens will be enormous help to researchers in India and abroad, working in the field of diarrhea.