

**Welcome to the fifth issue of the netSPEAR newsletter.**

netSPEAR is an independent project hosted by the KEMRI / Wellcome Trust Collaborative Research Programme in Nairobi, Kenya. netSPEAR is funded by the **PneumoADIP** and **GAVI** and works closely with the **WHO / PBMS Project** and WHO regional offices. netSPEAR aims to provide regional surveillance data on pneumococcal disease and other causes of meningitis and pneumonia that kill large numbers of African children every year. This information is essential for making decisions on the role of vaccines to prevent these diseases.

**Joint Support/Supervision in Uganda**

In the last two weeks of July, the netSPEAR team traveled to Uganda for a Joint Support/Supervision of the four sites. The support/supervision was done together with representatives from W.H.O and the Ugandan EPI programme of the Ministry of Health. Four hospitals were visited, Mulago, St. Mary's Lacor in Gulu, Mbarara and Mbale. At each hospital a systematic review was done from clinical detection of patients, to the handling, timely collection and transport of samples to the laboratory, and finally the processing of the specimens and data management. The aim of the visits was to support the work that is already being done, identify continuing challenges for each site and define the way forward to overcome these challenges. We were also able to note areas that need to be changed, improved or that require additional support from our end. Such visits are an important way for the netSPEAR team to learn how best to support sites.

While carrying out this support/supervision, we traveled with the core netSPEAR / PBM team from Mulago National Referral Hospital so that they could observe the operations in

the other hospitals and both learn from and assist their colleagues. The intention is to encourage further visits between sites as a form of peer support within countries.

Some common, important issues brought to light as a result of the visits included the need to;

- Increase the sensitization of paediatricians at each of the sites, especially the interns.
- Improve the coordination between laboratory and clinical staff.
- Revisit the SOPs and make sure they are available and used by both clinicians and laboratory staff.



*The netSPEAR team during the visit at St. Mary's Hospital, Lacor.*



### **Bactec Machines arrive in Uganda and Kenya**

Three Bactec machines have been purchased and delivered to hospitals in Kenya and Uganda. The recipients include Kenyatta National Hospital, Kenya, Mulago National Referral Hospital, Kampala and St. Mary's Hospital, Lacor. The three machines have been in operation since June with blood culture numbers beginning to pick up. It is estimated that all three of these sites, each of which has over 1,000 admissions a month, should have no problem reaching the 6 – 7 blood cultures a day capacity of the machines which is their aim. In Kilifi in Kenya 1 in 10 children with severe pneumonia have a positive blood culture with the investigation occasionally yielding some odd pathogens as well as the common *Streptococcus pneumoniae*. Blood culture results can therefore help considerably in the management of these children.



*The Bactec machine in operation in Mulago Hospital, Kampala.*

### **Embu, Kenya - A Rising Star?**

Surveillance for most sites will remain focused on meningitis with the ability to do an LP and process the CSF obviously critical. Embu Provincial General Hospital in Kenya joined netSPEAR just over a year ago and like many sites had several problems to overcome to re-establish the practice of LP for suspected meningitis and re-invigorate the laboratory. Their efforts have, however, paid off with Embu greatly increasing the number of LPs performed and CSF samples processed over the last few months. Congratulations on your success Embu.

### **Pneumococcal Vaccine Saves Lives.**

A pneumococcal conjugate vaccine tested in a study of 16,000 children in The Gambia, West Africa produced a dramatic result. Children receiving the vaccine had a mortality rate 16% lower than children who did not get the vaccine. This vaccine is similar to the one that has been routinely used in the USA to immunize all children against pneumococcal disease since 2001 but it is felt to be too expensive for African countries. netSPEAR hopes to work with its partner hospitals to show how much pneumococcal disease there is in East Africa in children. If the vaccine price comes down – and it should – then this information could help introduce this vaccine which could save the lives of tens of thousands of children in East Africa every year. To see the study report by F. Cutts and colleagues go to: [www.thelancet.com/journals/lancet/article/PIIS0140673605718766/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140673605718766/abstract)

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