

Pneumococcal disease is endemic all over the world causing a wide spectrum of illnesses ranging from a simple case of otitis media or sinusitis to more invasive infections such as meningitis, pneumonia, bacteremia, and sepsis. It is a major cause of morbidity and mortality worldwide especially when targeting young children, the elderly patient with chronic medical conditions and immunocompromised individuals of all ages.

Of note is the impact of pneumococcal disease on young children in developing countries, where an estimated 1.2 million deaths occur annually, mostly due to pneumonia. In developed countries pneumococcus is estimated to account for 25%-40% of bacterial meningitis cases and 30%-50% of otitis media cases amongst young children.

In Lebanon, there is a need to establish the relative importance of serotypes of *S. pneumoniae* that are causing invasive disease and to determine the burden of pneumococcal disease. However, data about the burden of pneumococcal disease in Lebanon is lacking. Without this information, no rational decision can be made regarding vaccine recommendations.

The LIPSP (Lebanese Inter-Hospital Pneumococcal Surveillance Program) was first established in October 2005, with only a limited number of hospitals within its network.

Today, 100 hospitals from all regions of Lebanon are participating in this program; it was initially funded by PneumoADIP and MSD, currently funded by Pfizer and CIDR, and with the collaboration of the Ministry of Health.

The goals of this ongoing surveillance are summarized as follows:

1. To determine the serotypes of *S. pneumoniae* causing invasive disease in Lebanon.
2. To determine the susceptibility patterns and emerging trends of pneumococcal antibiotic resistance in invasive isolates

Sites of sample collection are restricted to normally sterile sites (blood, CSF, pleural fluid, etc.). Sputum cultures are not included. The samples are processed at AUBMC microbiology lab and stored for later processing.

Hospitals that are participating in this study are kindly requested to contact the LIPSP team member- Mireille Lteif, Research Coordinator (03 – 313085) - when *S. pneumoniae* is isolated in the aforementioned sites. We kindly ask that the simple case report form (CRF) attached to this document be filled by the microbiologist or attending physician and submitted with the culture plates. Copies of the CRF will be made available.

A sum of 20\$ will be paid per sample (including retroactively) as reimbursement for supplies effort.

In an effort to include all eligible samples at the participating hospitals, we will call each hospital on a bi-weekly basis to remind the lab personnel about the program and to collect samples promptly when available. Once a sample is identified, we will travel to the participating hospital on the same or on the next day to collect a subcultured specimen. As for distant hospitals, we will be collecting specimens through the aid of courier companies.

A newsletter is published yearly and sent to all participating hospitals and includes analysis of the findings. Copies are also sent to Infectious Disease physicians and interested physicians and internists.

We look forward to your continued support of this nation-wide network.



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