Pneumococcal ELISA Library

Wernette, C.M., et al. 2003. Enzyme-Linked Immunosorbent Assay for Quantitation of Human Antibodies to Pneumococcal Polysaccharides. CDLI. 10(4):514-519. This paper reviews the history of, and difficulties associated with, the ELISA for measuring antibodies to pneumococci polysaccharides.

Jodar, L., et al. 2003. Serological Criteria for Evaluation and Licensure of New Pneumococcal Conjugate Vaccine Formulations for Use in Infants. Vaccine. 21:3265-3272. This paper provides guidelines for licensure of new pneumococcal conjugate vaccines and also describes the derivation of the 0.20 micrograms/ml antibody threshold for infants.

Siber, G.R., et al. 2007. Estimating the Protective Concentration of Anti-pneumococcal Capsular Polysaccharide Antibodies. Vaccine. 25:3816-3826. This paper details the meta-analysis that was performed to derive the 0.35 micrograms/ml protective level for anti-capsular polysaccharide antibodies. The 0.35 micrograms/ml is the antibody concentration recommended by WHO for vaccine efficacy evaluations worldwide.

Schuerman, L., et al. 2007. ELISA IgG Concentrations and Opsonophagocytic Activity Following Pneumococcal Protein D Conjugate Vaccination and Relationship to Efficacy Against Acute Otitis Media. Vaccine. 25:1962–1968. This study measured anti-capsule antibody levels by both ELISA and OPA and correlates these values to efficacy against acute otitis media.