1091. Serotype Distribution of *S. pneumoniae* Community Acquired Pneumonia (CAP) in Adults in the Netherlands in the CAPiTA (Community-Acquired Pneumonia Immunization Trial In Adults) Study Period

Rosalind Hollingsworth, PhD[1]; Susanne M Huijts, MD[2]; Marieke Bolkenbaas, MD[2]; Chris Webber, MD, PhD[3]; Samantha Gault, Msc[3]; Scott D. Patterson, PhD[1]; William Gruber, MD[4]; Diederick E. Grobbee, MD, PhD[2,5]; Marc Bonten, MD PhD[2,6]; CAPiTA Study Team[1]; [1]Pfizer Vaccine Clinical Research, Collegeville, PA; [2]Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht, Netherlands; [3]Pfizer Vaccine Clinical Research, Maidenhead, United Kingdom; [4]Pfizer Vaccine Clinical Research, Pearl River, NY; [5]Julius Clinical, Zeist, Netherlands; [6]Department of Medical Microbiology, University Medical Center Utrecht, Utrecht, Netherlands

Session: 129. Vaccines: Pneumococcal
Friday, October 10, 2014: 12:30 PM

Background. The CAPiTA (Community-Acquired Pneumonia Immunization Trial in Adults) trial was conducted in the Netherlands from September 2008-October 2013 to evaluate the efficacy of 13-valent pneumococcal conjugate vaccine (PCV13) for the prevention of vaccine-type (VT) pneumococcal community-acquired pneumonia (CAP) in adults aged ≥65 years. This trial provides a unique opportunity to evaluate the serotype distribution of PCV13 serotypes in CAP in adults over time in a setting where pneumococcal conjugate vaccines have been part of the infant national immunization program (NIP) since 2006, and where 23-valent pneumococcal polysaccharide vaccine (PPSV23) is not routinely administered to adults aged 65+.

Methods. In this double-blind, placebo-controlled, study, 84,496 immunocompetent adults aged ≥65 years were vaccinated with a single dose of PCV13 or placebo. The study continued until a pre-specified number of VT-CAP cases had occurred; episodes were identified using a PCV13-serotype-specific urinary antigen detection assay or by isolation of VT pneumococcus from a sterile site. Seven-valent pneumococcal conjugate vaccine (PCV7) was introduced for Dutch infants in 2006 as a 3 + 1 schedule, replaced by ten-valent pneumococcal conjugate vaccine (PCV10) in 2011; vaccination uptake is ~95%. Serotype distribution of PCV13 serotypes overall, and among placebo recipients (as a surrogate for the 65+ Dutch population) is described for each study year.

Results. All 13 PCV13 serotypes were confirmed among first episodes of VT-CAP (per-protocol population) over the duration of the study; most frequently identified were serotypes 1, 3, 7F, 19A. There were 4 episodes of PCV7-type CAP in placebo recipients in 2009, 3 in 2010, 6 in 2011, 2 in 2012, and 3 in 2013. For the additional serotypes in PCV13, there were 12, 17, 18, 16, and 9 episodes in 2009, 2010, 2011, 2012, and 2013 (7 months only), respectively.

Conclusion. Despite an infant NIP recommending PCV10, the most frequently observed serotypes in CAP among CAPiTA subjects included 1 and 7F. PCV7 serotypes persisted and their prevalence remained stable over the study. Furthermore, there was no evidence of a change in the frequency of the additional PCV13 serotypes.

Disclosures. **R. Hollingsworth**, Pfizer Vaccine Clinical Research: Employee and Shareholder, Salary **C. Webber**, Pfizer Vaccines Clinical Research: Employee and Shareholder, Salary **S. Gault**, Pfizer Vaccine Clinical Research: Employee and Shareholder, Salary **S. D. Patterson**, Pfizer Vaccines Clinical Research: Employee, Salary **W. Gruber**, Pfizer Vaccines Clinical Research: Employee and Shareholder, Salary **D. E. Grobbee**, Pfizer Vaccines Clinical Research: Investigator, Research grant **M. Bonten**, Pfizer Vaccines Clinical Research: Investigator, Research grant