of age (VE 61%, 95% CI 14, 82). VE was 26% (95% CI –58, 65%) against serotype 3 and 67% (95% CI 11, 88%) against other PCV13 types (+6C). PCV13 was not effective against nonvaccine types.

Conclusion. PCV13 was effective in preventing IPD caused by PCV13 types when excluding type 3: no effectiveness was demonstrated against serotype 3.

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152. Protective Antibody Levels 7.5 Years After Primary Vaccination in Adolescents With a Recombinant, 4-Component, Meningococcal Serogroup B Vaccine (4CMenB) and Response to a Booster Dose in Adolescents and Young Adults: Phase IIIb Clinical Findings Terry Nolan, MBBS PhD1; Miguel O’Ryan, MD2; Maria Elena Santolaya, MD3; Fernando Ribado de Andrade, MD, PhD4; Herve Marathe, MD5; Peter Richmond, MBBS FRACP5; Sam Henein, MD6; Paul Rheault, MD, MCCP7; Ken Heaton, MD8; Kirsten Perrett, MBBS FRACP PhD9; Hartley Garfield, MD10; Anil Gupta, MD MCCP CPFP11; Murdo Ferguson, MBChB, CCPF(EM) FCfP Dip Sport Med(Can)12; Diego D’Agostino, MSc13 and Daniela Tonzetto, MD14; 1University of Melbourne and Murdoch Children’s Research Institute, Melbourne, Victoria, Australia, 2Microbiology and Immunology Program/Institute of Biomedical Sciences, University Of Chile, Santiago, Chile, 3Hospital Dr Luis Calvo Mackenna, Faculty of Medicine, Universidad de Chile, Santiago, Chile, 4Austin Trials Pty Ltd. and University of Queensland, Brisbane, Australia, 5University of Adelaide and Women’s and Children’s Hospital, Adelaide, South Australia, Australia, 6University of Western Australia School of Paediatrics and Child Health and Vaccine Trials Group, Telethon Kids Institute, Princess Margaret Hospital for Children, Perth, Western Australia, 7SKDS Research Institute, Ontario, Canada, 8Medicor Research Inc., Sudbury, Ontario, Canada, 9Devonshire Clinical Research Inc., Woodstock, Ontario, Canada, 10Murdock Children’s Research Institute, University of Melbourne and Royal Children’s Hospital, Melbourne, Australia, 11The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada, 12Colchester Research Group, Truro, Nova Scotia, Canada, 13GSK, Amsterdam, Netherlands, 14GSK, Siena, Italy

Session: 44. Adult and Adolescent Vaccines
Thursday, October 4, 2018: 10:30 AM

Background. 4CMenB has been shown to be immunogenic with an acceptable safety profile in infants and young adolescents. However, no data on long-term persistence of primary vaccination in adolescents and young adults was available. This study was conducted to assess antibody persistence, booster response, and safety of 4CMenB in adolescents and young adults up to 7.5 years following the primary vaccination in adolescence.

Methods. This phase 3b, open-label, extension study (NCT02446743) assessed antibody levels in adolescents and young adults declined at 7.5 years postprimary vaccination in Group FO, but were higher than baseline levels in VN controls. At 1 month post-booster/post-first dose, 93–100% (Group FO) and 62–93% (Group VN) of participants had hSBA titres (table). At 1 month post-booster vaccination and compared with VN controls at 1 month post-first dose.

Results. 18–24 years received either a booster dose of 4CMenB 7.5 years postprimary series and young adults up to 7.5 years following the primary vaccination in adolescence. However, no data on long-term persistence of primary vaccination in adolescents and young adults was available. This study was conducted to assess antibody persistence, booster response, and safety of 4CMenB in adolescents and young adults up to 7.5 years following the primary vaccination in adolescence.

Conclusion. Antibody levels in adolescents and young adults declined at 7.5 years after a 2-dose primary series of 4CMenB, but were higher than baseline levels in VN controls. An additional dose of 4CMenB elicited strong anamnestic responses—substantially higher than 1 dose in VN controls.

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153. The Effect of Timing of Tetanus–Diphtheria and Pertussis Vaccine Administration in Pregnancy on The Avidity of Pertussis Antibodies Bahaa Abu Raya, MD1; Michelle Giles, MD2; Tobias Kollmann, MD, PhD3 and Manish Sardarangani, BM, BCH, DPhil4; 1Vaccine Evaluation Center, BC Children’s Hospital, University of British Columbia, Vancouver, British Columbia, 2Department of Obstetrics and Gynecology, Monash University, Melbourne, Australia and 3Vaccine Evaluation Center, BC Children’s Hospital, University of British Columbia, Vancouver, British Columbia, Canada

Session: 44. Adult and Adolescent Vaccines
Thursday, October 4, 2018: 10:30 AM

Background. Tetanus–diphtheria–pertussis (Tdap) vaccine in pregnancy is currently recommended in many countries. The optimal timing of pertussis immunization in pregnancy is not well established, leading to different recommendations. We aimed to determine the effect of timing of vaccination with Tdap in pregnancy on the umbilical cord avidity of antipertussis toxin (PT) immunoglobulin G (IgG).

Methods. Avidity of anti-PT IgG was assessed using ammonium thiochlorate (NH4Cl) treatment levels of 2.5 M (to measure low avidity antibodies) and 3 M (to measure high avidity antibodies). Anti-PT IgG levels achieved at 0.5, 1, 1.5 and 2 M NH4Cl were measured. T-tests were used to compare anti-PT IgG levels between newborns of women vaccinated in early (28–32 weeks gestation) and late (33–36 weeks gestation) trimester of pregnancy.

Results. Newborns of women vaccinated with Tdap in early third trimester (n = 43) had higher anti-PT IgG levels at 1 M and 2 M NH4Cl concentrations compared with newborns of women vaccinated in late third trimester (n = 47). 2.4 international units (IU)/mL vs. 1.9 IU/mL (P = 0.0073) and 2.3 IU/mL vs. 1.7 IU/mL (P = 0.0354), respectively, after adjustment for gestational age at birth. There was a negative association between later timing of vaccination in third trimester and anti-PT IgG levels achieved at 1 M, 1.5 M, 2 M, and 2 M NH4Cl (all P < 0.02). Co-linearity was a positive association between increasing duration of vaccination and delivery and anti-PT IgG levels achieved at 0.5 M, 1 M, 1.5 M, and 2 M NH4Cl (all P > 0.02).

Conclusion. Vaccination against pertussis during early third trimester results in higher levels of high avidity antibodies compared with vaccination in late third trimester. High avidity antibodies may confer greater protection to the neonate supporting recommendations for vaccination at 28–32 WG vs. 33–36 WG.

Disclosures. All authors: No reported disclosures.

154. Diagnosis and Genotyping of Coxiella burnetii Causing Endocarditis in a Patient With Prosthetic Pulmonary Valve Replacement (PVR) Using Next-Generation Sequencing (NGS) of Plasma DNA. Maiko Kondo, MD1; Sudheep Dalai, MD PhD2; Lars Westblade, PhD3; Shivkumar Venkatasubrahmanyam, PhD4; Neil Eisenberg, MD5 and Kristen M. Marks, MD6, 1New York-Presbyterian Weill Cornell Medical Center, New York, New York, 2Kariss, Inc., Redwood City, California, 3New York-Presbyterian Hospital, 4Weill Cornell Medical Center, New York, New York, 5Kariss, Inc., Redwood Shores, California, 6Division of Infectious Diseases, Weill Cornell Medicine-New York Presbyterian Hospital

Session: 45. Cool Findings in Bacteremia and Endocarditis
Thursday, October 4, 2018: 10:30 AM

Background. Identification of Coxiella burnetii, the etiologic agent of Q Fever, in culture-negative endocarditis (CNE) remains challenging, and strain-level information is typically unavailable through conventional testing. We used a novel next generation sequencing (NGS) assay on plasma cell-free DNA to facilitate rapid diagnosis and genotyping in a patient with C. burnetii CNE.

Methods. NGS was performed on plasma by Kariss, Inc. (Redwood City, California). Human reads were removed and remaining sequences were aligned to a curated database of over 1,000 pathogens. Organisms present above a predefined significance threshold were reported. For C. burnetii strain typing, alignments to different C. burnetii strains in the pathogen database were compared by BLAST bit-score to determine the most closely related strain to the infecting organism. C. burnetii genoype group was also determined by in silico analysis of polymorphic ORF deletion markers known to distinguish groups I–VI.

Results. Twenty-nine-year-old male with history of Tetalogy of Fallot, multivessel coronary artery disease, pulmonary valve replacement (PVR), and 16 months of intermittent fever and night sweat were admitted. Relevant history included travel in South and South East Asia, the use of a LivaNova 3T Heater-Cooler device during surgery (i.e., at risk for Mycobacterium chimaera), and drinking unpasteurized milk. Cardiac CT showed 2 pulmonary opacities concerning for septic emboli and echocardiography showed echodensity on pulmonic valve. Blood cultures were negative. NGS detected C. burnetii

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