IPD cases in adults ≥18 years; PCV13 serotypes accounted for 53% in 2009 and 25% of IPD in 2016. The correlations between IPD (ABC with INV pneumonia (SETRY)) and N-INV pneumonia (SENTRY) were 0.937 and 0.973 (both P < 0.01), respectively (Table 1). The proportion of IPD and N-INV pneumonia due to vaccine serotypes decreased consistently and monotonically until 2014 and then plateaued (Figure 1).

4. Conclusion. We found a strong correlation between PCV13 and ABC and between INV and N-INV pneumococcal disease in the proportion of disease due to PCV13 types. Our findings would need to be confirmed at the individual serotype level. The observed decrease in PCV13-type disease through 2014 is compatible with herd effects from PCV13 vaccination. We believe that the plateau remaining disease that may be addressed by direct vaccination of adults. Surveillance of IPD alone could guide some policy on PCV13-type pneumococcal pneumonia.


1447. Molecular Epidemiology, Serotype Distribution, Antimicrobial Sensitivity, and Clinical Findings of adult Pneumococcal Pneumonia Patients in Japan: Hospital-Based Study

Satoshi Kaki, MD, PhD; Motots Suirui, MD, PhD; Christopher M. Parry, MD, PhD; Michio Yasunami, MD, PhD; Kenosuke Morimoto, MD, PhD; and Adult Pneumonia Study Group-Japan; 1Department of Clinical Medicine, Institute of Tropical Medicine, Nagasaki University; 2Nagasaki, Japan; 3Adult Pneumonia Study Group-Japan; 4Nagasaki, Japan; 5Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, UK; 6Department of Medical Genomics, Life Science Institute, Saga-ken Medical Centre Koseikan, Saga, Japan

Session: 147. Respiratory Infections: CAP
Friday, October 5, 2018: 12:30 PM

Background. S. pneumoniae (SP) is one of the most important bacteria for pneumonia among adults. We investigated hospital-based proportion of antimicrobial resistance, distribution of serotypes, sequence types (STs) and clinical findings among adult pneumococcal pneumonia patients, and compared microbiological results with the previous study that was reported 10 years ago in Japan.

Methods. A multicenter prospective surveillance for adult pneumonia was conducted from September 2011 to August 2014 in Japan. We enrolled aged over 15 years, community-acquired or healthcare-associated pneumonia patients, and collected clinical information and sputum samples. Sputum samples were cultured qualitatively or qualitatively at each study sites. Identified SP strains were transported to our laboratory for serotyping by the Quellung reaction. We also extracted DNA from SP strains for multilocus sequence typing. Antimicrobial sensitivity tests for penicillin (PCG), ceftriaxone (CTRX), and meropenem (MEPM) were conducted using agar dilution method. Differences of clinical findings were analyzed using the chi-square test.

Results. We enrolled 200 cases and obtained 205 SP strains. Most dominant serotype was type 3 (48%) and ST was 180 (22.9%). Those results were similar to the previous report. The proportion of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine serotypes was 58.5 and 75.6%, respectively. Most of SP strains were sensitive for antibiotics (96.1% for PCG, 94.1% for CTRX, and 81.5% for MEPM) and the antimicrobial sensitivity also did not greatly have a change with the previous study reported 10 years ago. Pneumococcal pneumonia patients due to serotype 3 was higher hospitalization rate and CURB-65 score than those without it (P = 0.037; P = 0.016). There was no statistically significant difference in 30-day readmission rates, 30-day mortality, or 90-day mortality (P = 0.405; P = 0.338; P = 0.3790). They were more likely to be prescribed conditional QICs for amoxicillin resistant SP more than those without it (70.2% vs. 26.9%; P < 0.0001); however, differences in prescribing rates of a QIC were not statistically significant (85.3% vs. 83.4% P = 0.5353).

Conclusion. While mental illness is often associated with poor outcomes, this study emphasizes the need to continue to remove the stigma of mental illness when treating patients with community-acquired infections.

Disclosures. All authors: No reported disclosures.

1449. Comparison of Emergency Department vs. Inpatient Pediatric Treatment for Empiric Community Acquired Pneumonia in Infants and Children over 3 Months of Age

Jan Fune, MD; Pediatrics, Jersey Shore University Medical Center, Neptune, New Jersey

Session: 147. Respiratory Infections: CAP
Friday, October 5, 2018: 12:30 PM

Background. The Infectious Diseases Society of America (IDSA) made guidelines for management of community acquired pneumonia (CAP) in healthy infants and children older than 3 months of age. These were made to assist clinicians in choosing appropriate antimicrobial therapy in order to decrease morbidity and mortality and minimize antimicrobial resistance. Accordingly, narrow-spectrum antibiotics as first-line treatment but inadequate selection of broad-spectrum antibiotics remains high. Our study investigates the concordance between emergency department (ED) and in-patient prescribers in choosing appropriate antibiotic therapy for CAP.

Methods. This retrospective chart reviews the aforementioned population who were admitted to the inpatient pediatric service via the ED from January 1, 2015–December 1, 2017. Data collection included patient demographics, prior antibiotic use from an outpatient prescriber, the antimicrobial prescribed in the ED, and the antimicrobial used in the pediatric unit. The primary outcome determined the consistency between the prescribing pattern in the ED and the inpatient. A descriptive statistical analysis was conducted.

Results. A total of 210 patients were admitted to the inpatient pediatric service. The ED prescribed an aminopenicillin to 2.9% of patients or a cephalosporin as monotherapy on 70.8% of patients. The in-patient prescribers prescribed the same antibiotic in 25.3% of cases. The ED prescribed aminopenicillin in 10.6% of cases, switched to a macrolide in 5.4%, and 8.1% discontinued antimicrobials altogether. If an aminopenicillin was started in the ED, it was continued by the hospitalist in 82.3% of cases, with none switching to a cephalosporin, and one patient switched to a macrolide.

Conclusion. At our local pediatric hospital, there is poor concordance with IDSA guidelines for CAP. There is high concordance between ED and in-patient prescribers since hospitalists were more likely to continue the antimicrobial started in the ED. Guideline adherence might be improved by focus on antibiotic stewardship and creating order sets that adhere to IDSA guidelines. Future studies could investigate these suggestions improve overall adherence rates.

Disclosures. All authors: No reported disclosures.

1450. Clinical Characteristics of Patients with Community-Acquired Pneumonia due to Moraxella catarrhalis in Adults: A Retrospective Single-Center Study in Okinawa Miyako Island in Japan

Jun Hirai, MD; Takeshi Kinjo, MD, PhD; Shusaku Haranaka, MD, PhD and Iro Fujita, MD, PhD; Department of Infectious Diseases, Respiratory, and Digestive Medicine, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan

Session: 147. Respiratory Infections: CAP
Friday, October 5, 2018: 12:30 PM

Background. Previous studies reported that Moraxella catarrhalis was one of the most prevalent in community-acquired pneumonia (CAP); however, only a few investigations reporting. We aimed to determine the clinical characteristics of patients with CAP. Pneumonia patients aged over 20 hospitalized