593. Additional medical expenditures attributable to pneumococcal disease in Japan
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Session: P-23. Clinical Practice Issues
Background: Japan requires a reexamination of its current vaccination policies to reduce the prevalence of pneumococcal disease (PD). Although the decision-making process for vaccination programs must be informed by cost-effectiveness analyses, the lack of cost data from Japan precludes such investigations. This study was therefore performed to quantify the medical expenditures attributable to PD in Japan.
Methods: The study was conducted using surveillance data from the Japan Nosocomial Infections Surveillance (JANIS) program’s Clinical Laboratory Division and insurance claims data under the Diagnosis Procedure Combination (DPC) system. Data from April 2015 to September 2017 were obtained from 145 hospitals throughout Japan. As the analysis focused on community-acquired infections, the medical expenditures incurred during the PD hospitalization episodes directly represented the additional expenditures attributable to these infections. The descriptive statistics of the medical expenditures (mean, standard deviation, median, and interquartile range) incurred by the PD cases were calculated from the linked JANIS data and DPC data. In addition, these descriptive statistics were also generated according to the presence/absence of allergic reactions or age groups.
Results: The study sample comprised 1,689 PD cases from 29 hospitals during the study period. Of these, 77 were IPD cases and 1,612 were non-IPD cases. The mean medical expenditures (standard deviation) for all PD cases, IPD cases, and non-IPD cases were estimated to be 1,766,801 yen (1,704,067 yen), 1,660,477 yen (2,078,607 yen), and 986,055 yen (1,678,705 yen), respectively. In addition, the medical expenditures associated with patients aged 60–64 years (1,646,739 yen) and 65 years or older (1,646,286 yen) were substantially higher than those of younger patients aged 5–59 years (1,425,105 yen).
Conclusion: These estimates have applications in cost-effectiveness analyses of PD preventive measures, which can subsequently inform and guide national vaccination policies.
Disclosures: Haruhisa Fukuda, n/a, Pfizer Japan Inc. (Scientific Research Study Investigator)

594. Characteristics of an At-Risk Patient Population Presenting to a Philadelphia Student-Run Free Clinic within 30 Days of Hospital Visit
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Session: P-23. Clinical Practice Issues
Background: 30-day readmission rates are the parameter that hospitals and insurance companies use to measure clinical quality of care and set reimbursement levels for care (McCormack, et al., 2013). The 2019 readmission rate for United States hospitals was 14.9%; however, reported readmission rates vary in accuracy due to exclusion of at-risk populations or patients who seek care outside the hospital network (America’s Health Rankings, 2020; Gupta, et al., 2018). As coordinators of a student-run urgent care clinic serving an at-risk population, we seek to understand our at-risk population’s impact on current readmission rates and the ability of hospitalization to meet their unique medical needs.
Methods: We conducted a retrospective review of 607 electronic charts for patients who sought care at our student-run clinic associated with a synergized exchange in Kensington, Philadelphia from January 2017 to January 2020, and identified patients who visited our clinic within 30 days of self-reported hospitalization. We identified time since hospitalization, purpose for hospitalization, and reason for clinic visit.
Results: Of 607 visits, 100 (16.5%) self-reported hospitalization within 30 days clinic presentation. Of these 100 clinic visits, 64% presented with the same chief complaint as their reason for hospitalization, and 21% presented with a complication related to their hospital visit. 33% of visits associated with previous hospitalization were from infections associated with IV drug use, including abscess, cellulitis, and osteomyelitis. On average, patients presented 7.5 days following hospital discharge.
Conclusion: We identified a high incidence of clinic visits for medical needs associated with recent hospitalization, particularly injection-related infection, which suggests insufficient hospital care for this at-risk population. The number of readmissions for this population is underestimated due to their ability to seek medical care outside of the hospital network.
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595. Characteristics of Antimicrobials Which Affect Parenteral Antibiotic Therapy Outcomes
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Background: Outpatient parenteral antibiotic therapy (OPAT) has reduced length of stay, decreased nosocomial infections, and improved patient satisfaction/outcomes. Factors for choosing candidates and regimens for OPAT include: type of infection, organisms, antibiotic side effects, number of antibiotics and frequency of administration. This study sought to evaluate if antibiotic type, frequency, and duration, are associated with complications, and particularly if vancomycin is associated with an increase rate of complication.
Methods: Retrospective chart review of Zablocki VA Medical Center patients, Milwaukee, WI discharged from 2013-2017 on OPAT evaluated types of infection, antimicrobial regimens, number of antibiotics, duration, frequency, adverse events and outcomes. Primary outcome analyzed was whether or not there was a complication. Complication defined as antibiotic change/dose adjustment, PICC line complication, or additional clinic/hospital visit.
Results: 294 cases identified during study period. 286 (95.7%) were male. Most common antibiotics were vancomycin (78; 26.53%), daptomycin (42.14%), ertapenem (81, 27.55%), cefazolin (24.48%) and ceftiraxone (50.17%). Staphylococcus and Streptococcus were the most common organisms at 42.86% and 22.79% respectively.
Univariate analysis of the most common antibiotics, maximum frequency and duration are summarized in table 1. A multivariable model found vancomycin was associated with no complication (OR 2.23, CI 1.20-4.35), and Gentamicin (OR 0.20, CI 0.11-0.36) and Gentamicin (OR 0.06, CI 0.06-0.58) were significantly associated with complication. Antibiotic frequency, duration, bacterial speciation were associated with no complication when controlling for antibiotic type
Table 1

| Variable | No Complication | Complication | p-value |
|----------|----------------|--------------|---------|
| Antibiotic |              |              |         |
| Vancomycin | 27 (4.5) | 51 (8.10) | <0.001 |
| Daptomycin | 24 (4.39) | 14 (2.31) | 0.129 |
| Cefazolin | 10 (5.0) | 8 (4.07) | 0.399 |
| Ceftiraxone | 16 (3.0) | 12 (2.13) | 0.176 |
| Gentamicin | 10 (5.0) | 4 (2.07) | 0.001 |
| Ertapenem | 8 (4.0) | 4 (2.07) | 0.001 |
| Ciprofloxacin | 10 (5.0) | 4 (2.07) | 0.001 |
| Piperacillin-Tazobactam | 16 (3.0) | 12 (2.13) | 0.176 |
| Metronidazole | 10 (5.0) | 4 (2.07) | 0.001 |
| 2nd Antibiotic |              |              |         |
| Organism |              |              |         |
| Staphylococcus Aureus | 77 (4.0) | 68 (4.03) | 0.065 |
| Enterococcus | 47 (2.5) | 29 (1.67) | 0.157 |
| Gram Negative Rod | 17 (9.4) | 7 (4.07) | 0.302 |
| Staphylococcus type |          |              |         |
| MSSA | 4 (2.17) | 12 (6.02) | 0.008 |
| MSSR | 38 (2.0) | 15 (0.9) | 0.028 |
| Coagulase Negative Staphylococcus | 38 (2.0) | 15 (0.9) | 0.330 |
| Maximum Antibiotic Frequency |          |              |         |
| Continuous | 28 (15.0) | 16 (9.0) | 0.090 |
| Every 5 Hours | 10 (5.4) | 4 (2.07) | 0.040 |
| Every 6 Hours | 1 (0.5) | 0 (0) | 0.001 |
| Every 6 Hours | 27 (14.6) | 14 (2.21) | 0.092 |
| Every 12 Hours | 33 (17.7) | 41 (23.8) | 0.082 |
| Every 24 Hours | 0 (0) | 0 (0) | 0.001 |
| After Hemodialysis | 1 (0.2) | 0 (0) | 0.001 |
| Maximum Antibiotic Duration |          |              |         |
| <2 weeks | 3 (1.6) | 2 (1.0) | 0.040 |
| 2 weeks | 46 (24.7) | 10 (9.3) | 0.038 |
| 4 weeks | 34 (18.2) | 14 (7.1) | 0.002 |
| 6 weeks | 92 (50.0) | 24 (17.1) | 0.001 |
| 8 weeks | 3 (1.6) | 2 (1.0) | 0.040 |
| >2 weeks | 2 (1.0) | 0 (0) | 0.001 |

Conclusion: Antibiotics given for longer durations or require more frequent monitoring like vancomycin may have higher rates of complications. This study supports the hypothesis that vancomycin and aminoglycosides are associated with complications even when controlling for duration and frequency; cephalosporins are associated with no complications. New, safer antibiotics like long acting lipoglycopeptides may provide alternatives to Vancomycin to diminish the burden on ancillary OPAT staff who deal with OPAT complications.
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596. Clinical outcomes and healthcare utilization in uninsured patients requiring long-term antibiotic therapy
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Background: Outpatient parenteral antimicrobial therapy (OPAT) is frequently indicated in the management of severe bacterial infections. Uninsured patients may...