excluded. We also excluded patients with a present on admission secondary diagnosis of cholecystitis, appendicitis, peritonitis or abdominal infections.

Results. A total of 95,169 patients had a diagnosis of CAP with a culture or other test performed on the first day. A pathogen was detected in 15.4% of the patients. Among the pathogen positive patients, the mean age was 67 ± 16 years (range 18–89) and 52% were male. Thirty-four percent required ICU care and 8.4% died in the hospital. Almost all patients (99%) had at least one culture drawn, including blood (96%) and respiratory (51%) specimens. Bacteria were the most commonly detected pathogens. Among the Gram-positive bacteria, *Streptococcus pneumoniae* accounted for 22.2% followed by methicillin sensitive *Staphylococcus aureus* (MSSA) (14.8%) and methicillin-resistant *S. aureus* (7.9%). Among the Gram-negative bacteria, the most common organisms reported were *Pseudomonas aeruginosa* (5.9%), *Escherichia coli* (5.2%) and *Hemophilus influenzae* (5.3%). *Mycoplasma pneumoniae* was identified in 2.2%. Among viral pathogens, the most common were influenza virus (2.6%) and human rhinovirus (0.71%).

Conclusion. In a large US inpatient sample, a majority of patients with CAP had no microbial etiology identified by laboratory testing. Among the test positive patients, *S. pneumoniae* was the most common bacteria reported followed by MSSA and MRSA.

1470. Neurocognitively-Acting Potentially Inappropriate Medications, Alcohol, and Community-Acquired Pneumonia Among Patients with and Without HIV

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Background. Alcohol interactions with neurocognitively-acting potentially inappropriate medications (NC-PIMs) may be more common, more harmful, and associated with lower levels of alcohol use among people living with HIV.

Methods. We conducted a nested case–control study using data from the Veterans Aging Cohort Study (2007–2015). Cases with community-acquired pneumonia (CAP) requiring hospitalization (*n* = 6,716) were 1:5 matched to controls without CAP (*n* = 33,253) at the time of event by age, sex, race, HIV status, baseline year, and duration of observation time. Index date was defined as CAP date for cases and match date for controls. Based on pharmacy data in the year prior to index date, NC-PIMs included receipt of at least one prescription of any duration for anticonvulsants, sedatives (including benzodiazepines), prescription opioids, antidepressants, antipsychotics, and muscle relaxants. Among HIV+, NC-PIMs exposure also included ritonavir (RTV), cobicistat (COBI), and efavirenz (EFV). Conditional logistic regression models were used to obtain adjusted odds ratios (OR) and 95% confidence intervals (CI) for NC-PIMs (any and count overall, and by class), alcohol use disorder (AUD) diagnoses in the year prior to index date, and their interaction adjusted for smoking status, VACS Index, steroids, vaccination status (influenza and pneumonia), hepatitis C, previous CAP, and various comorbidities.

Results. Among 39,989 patients, 17,161 (43%) were HIV+, 98% were male, and median age was 58 years. An increase in number of classes of NC-PIMs was associated with a 17% increase in the odds of CAP among HIV+ and uninfected, and this effect was augmented by contemporaneous AUD. Among HIV+, all classes of NC-PIMs apart from EFV were positively associated with CAP, most notably antipsychotics (OR 1.66, 95% CI 1.43–1.93). Among uninfected, the highest risk of CAP was associated with antipsychotics (OR 1.81, 95% CI 1.61–2.03) and anticonvulsants (OR 1.64, 95% CI 1.49–1.80). AUD positively interacted with sedatives, opioids, antidepressants, and muscle relaxants in both groups, and with RTV/COBI in HIV+ patients.

Conclusion. NC-PIMs, especially with concurrent AUD, are associated with increased CAP risk among those living with and without HIV.

Figure 1a. Adjusted associations and interactions between neurocognitively-acting potentially inappropriate medications (PIM) and alcohol use disorder (AUD) on the risk of community-acquired pneumonia, overall and by class of PIM
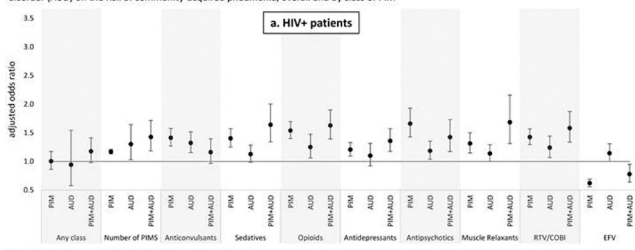
Abbreviations. RTV – ritonavir, COBI – cobicistat, EFV – efavirenz
Adjusted for smoking status, VACS Index, steroids, vaccination status (influenza and pneumonia), hepatitis C, previous CAP, and various comorbidities including chronic obstructive pulmonary disease, asthma, coronary artery disease, congestive heart failure, ischemic stroke, and diabetes mellitus

Figure 1b. Adjusted associations and interactions between neurocognitively-acting potentially inappropriate medications (PIM) and alcohol use disorder (AUD) on the risk of community-acquired pneumonia, overall and by class of PIM
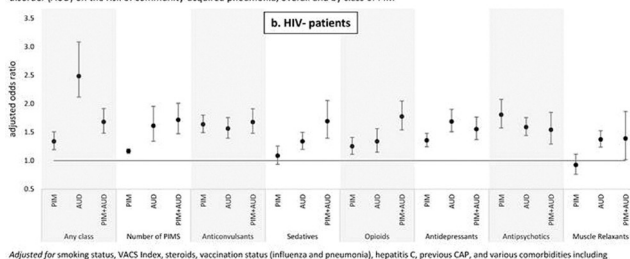
Adjusted for smoking status, VACS Index, steroids, vaccination status (influenza and pneumonia), hepatitis C, previous CAP, and various comorbidities including chronic obstructive pulmonary disease, asthma, coronary artery disease, congestive heart failure, ischemic stroke, and diabetes mellitus

1471. Case Report: Andes Virus Hantavirus Pulmonary Syndrome in a Traveler Returning to the United States

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Background. Andes virus (ANDV), a New World hantavirus, is transmitted to humans via contact with the long-tailed pygmy rice rat (*Oligoryzomys longicaudatus*) in Chile and Argentina. Unlike other hantaviruses, ANDV can be transmitted person-to-person. It has a case mortality rate of approximately 30%. Here we describe the first known, imported case of ANDV to the United States.

Methods. On January 9, 2018, a 29-year-old female with no significant past medical history returned to the United States from a 3-week group trip to Chile and Argentina. She did not receive vaccines or take prophylaxis. She visited Central California before returning to Delaware. January 19 she presented with fevers, vomiting, and extreme fatigue. Examination was remarkable for hypotension requiring fluid resuscitation and O_2 saturation of 89% on room air. She described chest tightness. Influenza, community acquired pneumonia, and PE were considered. Sputum influenza A/B and RSV PCR were negative. Laboratories revealed hypoalbuminemia at 2.2 g/dL, thrombocytopenia at 61,000, and transaminitis with AST 342 and ALT 302. WBC was within normal range with maximum of 11,000. Computerized tomography (CT) of chest revealed bilateral lower lobe ground-glass opacities, pleural effusions, and pulmonary edema. She was started on antibiotics. Her symptoms continued. She developed blurred vision and peri-orbital edema. She required 3 L O_2 nasal cannula. Headaches, sweats, peripheral edema, and rales developed. Lyme, Ehrlichia, malaria studies, and blood cultures were negative. Acute EBV, CMV, HIV, hepatitis, and dengue serologies were also negative. Hantavirus serologies were obtained Day 4 of admission. She was discharged Day 6 after resolution of fever, hypoxia and thrombocytopenia.

Results. Hantavirus ELISA IgG and IgM were reported positive 4 days after discharge and testing at the CDC confirmed ANDV infection.

Conclusion. Hantavirus is prevalent in certain South American locales. It should be considered in all patients returning from Chile and Argentina with fever, shortness of breath, and thrombocytopenia. Early recognition of symptoms and hallmark laboratories can identify patients that may require advanced supportive measures to decrease overall mortality.

1472. Antibiotic De-escalation Compared with Continued Empirical Treatment in Non-Ventilated Hospital-Acquired Pneumonia

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Background. Antibiotic de-escalation is an important component of antimicrobial stewardship programs. Nosocomial pneumonia is the most common healthcare-associated infection with nonventilated hospital-acquired pneumonia (HAP) comprising the majority of cases. We aimed to compare antibiotic de-escalation with continued empirical treatment in terms of clinical outcomes in nonventilated HAP.

Methods. A retrospective cohort study was conducted including patients meeting the American Thoracic Society criteria for HAP. This compared de-escalated HAP patients to those continued on empirical treatment across three hospitals in West London over 3 months. The primary outcome was the length of stay (LOS), and secondary outcomes were duration of treatment and cost of hospital stay. Effects were adjusted for confounders using multivariate linear regression models.