Results. Among 101,462 pneumonia admissions across 114 VA hospitals, 4% had a DRP detected on culture, 25% had an eDRP ≥ 4, and 50% received broad-spectrum antibiotics. The Salt Lake City VA demonstrated slightly lower prevalence of eDRP factors than the national population (table). Within the Salt Lake City VA, the EHR cohort and manually extracted Babbel cohort demonstrated similar prevalence of detected DRP, eDRP ≥ 4, and 8 of 10 features involved in the DRP score (table). The eDRP identified fewer hospitalizations with poor functional status and residence in long-term facilities.

Conclusion. In a large population of veterans admitted for community-onset pneumonia, automated extraction of an eDRP score from the EHR was promising, though in need of revision. While some extracted features had similar prevalence to manual review, others differed by a factor of 10 or more, which may reflect issues with data extraction. Further work is needed to optimize feature extraction and compare electronic to manual DRP scores to determine its utility within the VA population.

Table: eDRP score factor prevalence and admissions characteristics for the VA pneumo  

| Characteristic | Value |
|---------------|-------|
| Age (years)   | 31    |
| Race          | 95    |
| Sex           | 95    |
| Hospitalization within 60 days | 95 |
| Urgent admission | 45 |
| Primary diagnosis | 50 |
| RV admission | 50 |
| Inpatient stay (days) | 10 |

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2220. Evaluation of Medicare Claims to Assess Burden of Pertussis Disease in Persons Aged 65 Years
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Background. Pertussis in adults may be underdiagnosed and underreported; there is limited information on the incidence and severity of pertussis in older adults. We compared pertussis diagnoses identified using medical claims data with national surveillance data to examine the use of claims data as a source for disease burden estimates.

Methods. We examined claims data in persons aged 65 years in the United States enrolled in Medicare A and B from January 1, 2008 to December 31, 2017. We identified provider-diagnosed pertussis through pertussis-related ICD9/ICD10 diagnoses (033.XX, 484.3, A37.XX). We examined whether any were categorized as inpatient claims and if there were claims for laboratory tests within 30 days of the initial pertussis claim. We estimated claims-based pertussis incidence using person-time

Results. Among 27,269,361 Medicare beneficiaries, 24,355 (0.09%) had claims for laboratory tests within 30 days of the initial pertussis claim. Of these, 1,875 (7.7%) had claims associated with inpatient hospitalizations; 7,964 (33%) had laboratory testing performed. The mean annual incidence of claims-based pertussis was 11.5/100,000 person-years (range: 9.3 to 14.3/100,000 person-years). In contrast, 6,722 pertussis cases in persons aged 65 years were reported to NNDSS. Among the 5,101 cases whose hospitalization status was known, 783 (15%) were hospitalized. Mean annual reported pertussis incidence was 1.5/100,000 person-years (0.67 cases to 2.63 cases/100,000 person-years) in this age group.

Conclusion. Many more Medicare beneficiaries with pertussis-related claims were identified than pertussis cases in persons aged 65 years reported to public health authorities. This suggests pertussis is likely diagnosed more frequently in older adults than national incidence estimates indicate. A smaller proportion of Medicare beneficiaries with pertussis-related claims were hospitalized compared with reported cases and a majority did not have laboratory testing performed. It is unknown what proportion of pertussis-associated claims represent true pertussis disease.