Results. A total of 78 recruits participated in the study. The participants were male and the mean age was 21 years (SD 4.9). In the first two weeks of training, nine recruits reported to outpatient clinics for their ILI, resulting in an attack rate of 12%. Fifty-five recruits returned symptom diary cards with at least 13 days of records between visit 1 and visit 2. Among them, four trainees visited clinics for ILI while additional 14 trainees reported at least one day of ILI without seeking healthcare. The proportion of patients not seeking care was 78%. The attack rate of self-reported ILI (to health clinics or on symptom cards) was 33% (18/55). The self-reported ILI participants reported a median of 2 days of having ILI (range: 1–7 days).

Conclusion. Our data showed that the majority of trainees reporting ILI did not seek healthcare. The attack rate based on clinic attendance largely underestimated the ILI burden. Understanding reasons and obstacles of trainees not seeking care would be crucial in infection control and reduction of ILI transmission among basic training recruits who are at high risk of ILI.

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2500. Incidence of Herpes Zoster in the Pre- and Post-Vaccine Era: Do Trends Differ Between Blacks And Whites?

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Background. Herpes zoster (HZ) incidence in blacks is 25%–65% lower than in whites in the United States. Since 2007 and the widespread introduction of Zostavax (ZVL), studies report plateauing or decreasing HZ incidence in the United States among persons ≥60 years. We examined HZ incidence and ZVL coverage trends by race among Medicare beneficiaries, in the pre- and post-vaccine era.

Methods. We used administrative health claims from a 5% sample of Medicare beneficiaries ≥65 years. We defined incident cases as HZ in the first diagnostic position, with no HZ code in the previous year, among beneficiaries enrolled in Part A and B, from 1992 to 2015. We calculated incidence of first HZ episode by dividing the number of cases by the total number of person-years (p-y). A case was a censoring event. We used Poisson regression to compare HZ incidence by race before and after 2007. We calculated vaccine coverage by dividing the total number of persons with ZVL in Medicare Part D by the number of eligible enrollees.

Results. We identified 266,745 first HZ episodes. Prior to 2007, HZ incidence increased among both blacks and whites. Although incidence was double in whites vs. blacks (10.3 vs. 5.0 cases/1000 p-y), the rate of increase was similar ($P = 0.75$). From introduction of ZVL to 2015, HZ incidence decreased 1.8%/year in whites and did not change significantly in blacks ($P < 0.001$) (figure). By 2015, ZVL uptake in Medicare among blacks was less than half that among whites (7.3% vs. 19.9%).

Conclusion. Incidence of HZ increased at a similar rate for black and white Medicare beneficiaries in the pre-vaccine era. In the post-vaccine era, incidence has decreased among whites and plateaued among blacks. Though the reasons for racial difference and temporal changes in HZ incidence remain unknown, ecologic association suggests higher vaccination rates may contribute to steeper HZ declines among whites in the post vaccine era.

Disclosures. **All authors:** No reported disclosures.

2501. Impact of Influenza A and B Infection on Stem Cell Transplant Patients During the 2017–2018 Season at a Single Center

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Background. Seasonal influenza causes significant morbidity and mortality on HSCT recipient. The 2017–2018 influenza has been characterized in the United States by prolonged high rates of both influenza A (IAV) and B (IBV) and low vaccine effectiveness. The aim of this study was to assess the impact of both IAV and IBV during 2017–2018 influenza season on a cohort of stem cell transplant (SCT) recipients at Weill Cornell- NYP.

Methods. We reviewed charts of HSCT recipients that were diagnosed with influenza by PCR on nasopharyngeal swabs. Demographics, clinical and microbiological data, and outcomes were collected. The study was approved by Weill Cornell Institutional review board.

Results. From September 2017 to March 2018, 30 stem cell transplant recipient at NYP were diagnosed with influenza. IAV cases peaked in January (11 cases) while IBV infected-patients were equally distributed from December to March. Infected subject were more likely to be male ($n = 20$, 66.6%) with mean age of 57 ± 12 (IAV) vs. 59 + 11 (IBV). Nine patients had received auto SCT and 21 patient allo SCT. Most commons symptoms were cough (present in all patients), fever (28/30), nausea, dyspnea. Patient received oseltamivir (for 5 or 10 days) in 28/30 cases, with one patient developing resistance under treatment. Interestingly both IAV and IBV caused lower respiratory tract infection (LRTI, 7 cases) with severe pneumonia (IAV 1 cases, IBV 2 cases) and intubation. In two severe cases IV was detected in the BAL. 13 subjects (56%) with a URTI and 4 (43%) subjects with LRTI had not received the influenza vaccine for the season. Prolonged shedding of influenza on oseltamivir treatment was documented in 7 patients.

Conclusion. Both IAV and IBV are serious threat in SCT population. Vaccination and oseltamivir are useful tools. Resistance testing should be considered in subjects with prolonged disease.

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2502. Host Susceptibility to Andes Hantavirus Infection Associates to a Single Nucleotide Polymorphism at the αVβ3 Integrin

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Background. ANDV is etiologic agent of hantavirus cardiopulmonary syndrome (HCPS) in Chile. Transmission occurs mainly by exposure to aerosolized excretes of infected rodents, person-to-person transmission has also been reported. ANDV infected endothelial cell through αV,β3 integrin at plexin-semaphorin-integrin (PSI) domain. *In vitro* assays establish that the change from leucine to proline, at residues 33 in PSI-domain inhibits ANDV recognition of integrin. Here we assessed the risk that represents a polymorphism leucine to proline (L33P) and the association to susceptibility to ANDV.

Methods. For risk assessment, 74 cases and 105 controls (exposed but not infected) were genotyped by Taqman assay, epidemiological and demographic data were recorded. We also evaluated SNP distribution at general population, infected population (serum collection) and 11 prospectively diagnosed ANDV cases. A regression logistic model was used to assess environmental or person to person risks factors of hantavirus infection either in presence or absence of the "susceptible" or "protective" genotypes.

Results. In cases and controls the susceptible (TT) genotype (Leucine) was distributed in an 89.2 and 60%, respectively (Figure 1). The protective genotype (CC) was absent among cases but present at 11.4% in exposed controls. We estimated the Odds ratio (OR), through a logistic model, first using only previously described risk activities and after adding the genotype TT; the OR increased from 6.2 to 12.6. Cases and control at same exposure (access to abandoned place) showed that controls have a 57% of TT genotype, meanwhile in cases was 91%, with an OR of 7.3. For a second common exposure activities (handle woods) the controls had a 59.4% of TT genotype, meanwhile for cases 85%. For general and infected population both did not show statistical differences in allele distribution, and we detected a 1.7% of CC genotype in the infected population (Figure 2). We did not detected CC genotypes in the eleven prospective ANDV cases.

Conclusion. There was association between this particular SNP and infection susceptibility to ANDV. We highlight the relevance of genetic background in host-virus interaction. Nevertheless, other factors such as innate immune system or viral variability must be explored to fully understand the disease pathogenesis.

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2503. Assessment of State-Level Influenza Season Severity—Utah, 2017–2018

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