2497. Acute Flaccid Paralysis: 17-Year’s Active Epidemiological Surveillance in a Pediatric Hospital in Argentina

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Background. Argentina, as the same of LATAM countries certifies the elimination of polio in 1990. Acute flaccid paralysis (AFP) surveillance is a key strategy for monitoring the progress of poliomyelitis eradication in the world. The aim of this study was to describe the epidemiological pattern of patients reported with AFP.

Methods. A cross-sectional study was carried out from January 2000 to December 2016 at the “R. Gutierrez” Children’s Hospital. All children aged <15 years who met the WHO definition for AFP were included. Stool samples were sent to the national reference laboratory to be tested for enteroviruses (non-polio enterovirus, poliovirus). All of them present motor sequels. Five of them were detected by PCR in nasopharyngeal aspirates and only one in stool transverse myelitis (IQR 1–17). None of the patients was diagnosed as having polio vaccine related paraly.

Results. A total of 174 cases were included; median age 62 months (IQR 29–108); 53.5% males. No seasonality pattern was observed; 137 (79%) stool samples were tested and nine poliovirus was isolated. The median time between the onset of the paralysis and the admission was 4 days (IQR 2–9); the most common prodromal symptoms were: fever (39%), respiratory infection (35%), digestive (31%), myalgia (34%) and meningeval (5%). Symmetric paralysis (78%) without progression was the most frequent clinical presentation. The median length of stay at the hospital was 9 days (IQR 1–17). None of the patients was diagnosed as having polio vaccine related paralysis. Guillain-Barre syndrome was the most frequent final diagnosis (n = 14); botulism (n = 12) and enceplhitis (n = 6). Between years 2000 and 2016 a total of eight cases of non-polio enterovirus (NPEV) were found; 6 cases of acute myelitis (AFM) associated to D68 enterovirus, clustered in winter 2016. Five of them were detected by PCR in nasopharyngeal aspirates and only one in stools samples. All of them present motor sequels.

Conclusion. Epidemiological surveillance of AFP allows ruling out poliovirus infection and detect other flaccid paralysis etiologies. In 2016 D-68 enterovirus samples. All of them present motor sequels. Five of them were detected by PCR in nasopharyngeal aspirates and only one in stool transverse myelitis (IQR 1–17). None of the patients was diagnosed as having polio vaccine related paralysis.

2498. Association of Increasing Age With Hospitalization Rates, Clinical Presentation, and Outcomes Among Older Adults Hospitalized With Influenza—US Influenza Hospitalization Surveillance Network (FluSurv-NET)

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Background. Few data describe the epidemiology of influenza among adults 265 years old according to age strata. We evaluated age-related differences in influenza-associated hospitalization rates, clinical presentation, and outcomes among older adults at 14 FluSurv-NET sites during the 2011–2012 through 2014-2015 influenza seasons.

Methods. Study patients were hospitalized ≤14 days after and ≤3 days before a positive influenza test. Age strata were 65–74, 75–84, and 285 years old. We adjusted hospitalization rates for under detection and assessed for age-related trends in risk factors, symptoms. We used logistic regression to calculate odds ratios (OR) for pneumonia and in-hospital death adjusted for season, sex, nursing home residence, smoking, medical comorbidities, influenza vaccination, and study site.

Results. There were 19,760 patients, including 5,956 aged 65–74 years, 6,998 aged 75–84 years, and 6,806 aged 285 years. There was a stepwise increase in hospitalization rates with age (figure). Increasing age was positively associated with female sex, nursing home residence, neurologic disorder, cardiovascular and renal disease, and vaccination, and inversely associated with morbid obesity, smoking, asthma, chronic condition, and immunosuppression (P < 0.01). Among 10,248 (53%) patients with symptom data from 2014 to 2015, increasing age was associated with a higher prevalence of altered mental status and lower prevalence of fever, myalgia, respiratory or gastrointestinal symptoms, and headache (P < 0.01). Compared with 65–74 year olds, older patients had a higher risk of pneumonia (285 year-olds: OR 1.2, 95% CI 1.0, 1.3, P = 0.01) and death (75–84 year-olds: OR 1.4, 95% CI 1.2, 1.7, P < 0.01; 285 year-olds: OR 2.1, 95% CI 1.7, 2.6, P < 0.01).

Conclusion. There are age-related differences in the epidemiology, clinical presentation, and outcomes of older adults hospitalized with influenza. These may reflect differences in health status and healthcare provider practice patterns. Public health epidemiologists should consider using additional age strata in 285 year-olds when analyzing influenza surveillance data. Clinicians should be aware that influenza among the oldest adults may present atypically and that mortality is increased.
2500. Incidence of Herpes Zoster in the Pre- and Post-Vaccine Era: Do Trends Differ Between Blacks And Whites?
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Methods. We used administrative health claims from a 5% sample of Medicare beneficiaries 265 years. We defined incident cases as HZ in the first diagnostic visit, 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 1.8%/year among blacks and did not change significantly among whites.

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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Methods. We reviewed charts of H SCT 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 IIV infected patients were equally distributed from December to March. Infected subjects were likely to be male (r = 0.20, 66.6%) with mean age of 57 ± 12 (IAV) vs. 59 ± 11 (I BV). Nine patients had received auto SCT and 21 patient allo SCT. Most common symptoms were cough (present in all patients), fever (28/30), nausea, dyspepsia. 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 case, IBV 2 cases) and intubation. In IIV two severe cases IV was detected in the BAL. 13 subjects (56%) with a LRTI and 4 (13%) subjects with LRTI did not receive 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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