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

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Session: 255. Virology Potpourri
Saturday, October 6, 2018: 12:30 PM

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, Sabin, Sabin-derived)in compliance with the AFP protocol.

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 no wild 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 meningeal (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 ($n = 72$) followed by transverse myelitis ($n = 14$), botulism ($n = 12$) and encephalitis ($n = 6$). 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 stool 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 AFM outbreak was detected in Argentina when conducting AFP routine surveillance. Nasopharyngeal aspirates, in AFM suspected cases, must be part of the study AFP protocol.

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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Session: 255. Virology Potpourri
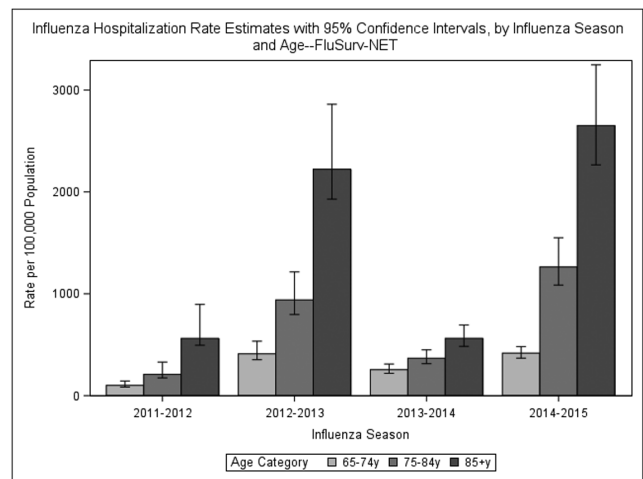*Saturday, October 6, 2018: 12:30 PM*

Background. Few data describe the epidemiology of influenza among adults ≥65 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 ≥85 years old. We adjusted hospitalization rates for under detection and assessed for age-related trends in risk factors and 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 ≥85 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 metabolic disease, and immunosuppression ($P < 0.01$). Among 10,548 (53.3%) 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, myalgias, respiratory or gastrointestinal symptoms, and headache ($P \le 0.01$). Compared with 65–74 year olds, older patients had a higher risk of pneumonia (≥85 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, $P < 0.01$; ≥85 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 ≥65 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.

Influenza Hospitalization Rate Estimates with 95% Confidence Intervals, by Influenza Season and Age--FluSurv-NET

2499. Burden of Influenza Like Illness (ILI) Among Congregate Military Populations

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Session: 255. Virology Potpourri
Saturday, October 6, 2018: 12:30 PM

Background. Influenza-like illnesses (ILI) have placed a significant health burden on the United States Armed Forces for decades. Up to 300,000–400,000 of new cases of ILI result in clinical encounters in the US military annually. In congregate populations such as trainees, the impact is far greater due to crowding and stressors such as physical stress from training. Clinic-based surveillance may under-estimate the true ILI burden because trainees with ILI may not seek healthcare for fear of missing training, facilitating the spread of respiratory pathogens. To undercover the true ILI burden we estimated the attack rate of ILI in trainees irrespective of whether they sought care.

Methods. A prospective cohort study was conducted among US Army recruits in a 9-week basic combat training course at Ft. Benning, GA, in January-March 2017. Symptom diary cards were available to the trainees to record each day whether they had fever/chills/feverish feeling, cough, and/or sore throat, the symptoms of ILI. Attack rate was calculated as number of trainees with ILI divided by number of participants in the study.