Session B4

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Vaccine Administration Errors
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Summary of Topic:
Vaccination errors - This session will focus on the use of immunization information systems in vaccination error detection; shoulder dysfunction following influenza immunization reports to VAERS; and preventive measures and resources for addressing vaccine administration errors.

Description of Session:
Vaccine Administration Errors and Immunization Information Systems

Speakers: Eric Larson Northrop Grumman contracted to support Immunization Information Systems Support Branch, NCIRD
Loren Rodgers PhD Team Lead Immunization Information Systems Support Branch, NCIRD

We will describe the role of Immunization Information Systems (IIS) for preventing, detecting, correcting and reporting vaccination errors. By implementing Clinical Decision Support for Immunizations, IIS and connected systems can aid vaccination providers in applying the Advisory Committee on Immunization Practices’ recommendations at the moment of a clinical encounter. Moreover, IIS are able to facilitate reporting of provider data to support adverse event investigations and, vaccine recalls, and as well as reporting errors when they occur. We will summarize recent data describing the implementation of these functionalities in IIS throughout the US.

2. Shoulder Dysfunction Following Influenza Immunization - Reports to VAERS 2010-2016

Speaker: Beth Hibbs, RN, MPH Nurse Consultant Immunization Safety Office, NCEZID

Shoulder injury related to vaccine administration was added to the National Vaccine Injury Compensation Program in 2017. This study characterized reports of shoulder dysfunction (SDFI) following influenza vaccine (IIV) to the National Vaccine Adverse Event Reporting System. Over 1,000 reports were identified as possible SDFI cases following influenza immunization in VAERS from 2010-2016. Reports ranged between 128 and 223 reports per influenza season. During this period more than 130 million doses of IIV were distributed per season in the US. More females than males reported SDFI of IIV. The most common age group was 19-59 years. Few reports were in children 0-18 years (<1%). Vaccination given too high on the arm was the most common reported contributing factor. The most common place of vaccination was in pharmacies and medical offices. Most were non-serious reports (93%). About half of the reports stated the patient had subsequently seen a healthcare provider for shoulder pain. Pain had not resolved at time of reporting in the majority of reports. SDFI vaccination accounted for approximately 2% of all IIV VAERS reports. Shoulder dysfunction following immunization while rare may be preventable.

3. NIPINFO Data Analysis of Vaccine Administration Errors: August 2013-October 2017

Speaker: Lauren Hughes, MPH, CPH CDC ORISE Fellow-Communication and Education Branch, NCIRD

NIPINFO is an email service provided by the Immunization Services Division (ISD) at the Centers for Disease Control and Prevention (CDC.) This service answers questions from the general public and healthcare providers regarding vaccines, vaccine recommendations and vaccine preventable diseases. NIPINFO data collected from
August 2013 through October 2017 comprised over 36,000 individual email records. Out of the 31 secondary topics errors was the fourth most common at 7.5%. The top three vaccines with questions about errors were Influenza (16.6% of responses) Multiple [vaccines] (9.0% of responses), and pneumococcal vaccines (8.0%). The top three inquiry sources were private healthcare providers (37.8%), public healthcare providers (33.5%) and unknown [provider did not identify as public or private] provider (18.5%). CDC has developed vaccine administration educational programs and materials for health care personnel outlining strategies to prevent vaccine administration errors such as the ones discussed.

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