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PREVENTION OPPORTUNITIES UNDER THE BIG SKY

Improving Respiratory Syncytial Virus Surveillance in Montana

Respiratory syncytial virus (RSV) is the leading cause of bronchiolitis and pneumonia in U.S. infants aged less than one year. Infants born prematurely, and infants and young children with chronic lung and heart disease are at higher risk for severe RSV infection. Each year in the United States, approximately 75,000 to 125,000 children aged <5 years are hospitalized because of RSV infection. Palivizumab (Synagis®) is a monoclonal antibody administered monthly to high-risk infants and children as chemoprophylaxis during RSV season. Palivizumab costs approximately $1500–$2000 per monthly dose and is recommended for use only during RSV season. Thus, accurate epidemiologic data describing the beginning and end of RSV season are needed. Until now, the National Respiratory and Enteric Virus Surveillance System (NREVSS) was the primary source for state-level RSV data. NREVSS detects RSV tests performed at only 5 laboratories in Montana.

In this issue of *Montana Public Health*, we describe anticipated benefits of the new, web-based Montana RSV Surveillance System (MRSS).

Prophylaxis for RSV for high risk infants

In 2009[1] and 2010[2], American Academy of Pediatrics (AAP) published modified recommendations for use of palivizumab for infants and children aged less than 24 months with the following conditions: (1) chronic lung disease or congenital heart disease and requiring medical therapy; (2) preterm infants born at or before 31 weeks, 6 days of gestation; (3) certain infants with neuromuscular disease or congenital abnormalities of the airways. This drug is administered monthly for a maximum of five doses. Certain premature infants are eligible for a maximum of 3 doses. (Table)

Table. American Academy of Pediatrics recommendations for use of palivizumab for RSV prophylaxis[3]

Infants eligible for a maximum of 5 doses:

- younger than 24-months and with chronic lung disease and requiring medical therapy
- younger than 24-months and requiring medical therapy for congenital heart disease
- preterm infants born at or before 31 weeks, 6 days of gestation
- certain infants with neuromuscular disease or congenital abnormalities of the airways

Infants eligible for a maximum of 3 doses:

- preterm infants with gestational age 32 weeks, 0 days to 34 weeks, 6 days with at least 1 risk factor and born 3 months before or during RSV season

Source: Red Book: 2012 Report of the Committee on Infectious Diseases

The Montana RSV Surveillance System (MRSS)

Approximately 50 to 60 laboratories, clinics, and healthcare systems in Montana have been identified by local public health agencies as having in-house RSV testing capabilities. These sites will be the contributors of RSV testing data to the MRSS. Healthcare providers and public health partners can view MRSS summary data at http://www.rsv.mt.gov to guide their interpretation of diagnostic testing and timing of chemoprophylaxis for infants and children at high risk for severe RSV infection. The Administrative Rules of Montana (ARM 37.114.204(6)) now require laboratories to report weekly RSV testing data (serologic and PCR) to the Department of Public Health and Human Services (DPHHS).

Data for clinical decision making

Montana RSV testing data support prudent clinical decision making for use of palivizumab at the local level. These data also support Montana Medicaid authorization for coverage of palivizumab by detecting an unusually early onset or late offset of RSV season. This allows for urgent palivizumab authorization or declination of unnecessary prescriptions. Detecting an unusually late RSV season conserves palivizumab for use in children when the drug is needed and supports more accurate planning for clinicians and the Medicaid program.

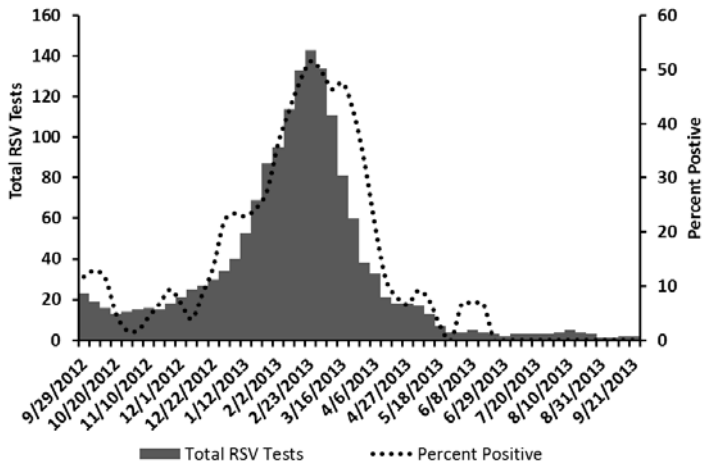
Palivizumab use outside AAP guidelines occurs as prescriptions for children not meeting the eligibility criteria or receiving fewer than recommended doses.[4] The MRSS aims to support appropriate use and reduce over-prescribing of palivizumab.

The RSV Season

The RSV season officially begins after two consecutive weeks during which the reported RSV testing positivity rate is ≥10% in a given geographic area. This is an approach the NREVSS and other state RSV surveillance systems have adopted. Season onset in Montana typically ranges from late December to mid-January, and season offset ranges from late March to early May (Figure).[5] DPHHS anticipates that MRSS will provide healthcare workers with a more timely and local view of RSV activity in Montana compared to NREVSS.

Although RSV has never been a reportable condition in Montana, case counts have been sporadically logged at DPHHS and within local health jurisdictions. Until now, a comprehensive system for detecting a high percentage of the tests performed in Montana has not existed.

Figure. Number and percent positive RSV tests in Montana (n=5 laboratories), 2012–2013



Source: http://www.cdc.gov/surveillance/nrevss/rsv/state.html#MT

Recommendations concerning RSV surveillance, testing, and prophylaxis for healthcare personnel in Montana.

1. Clinicians may visit http://www.rsv.mt.gov to view summarized RSV testing data by region in Montana. This website will be updated every Friday until the end of the 2013–2014 RSV season.
2. Current RSV prophylaxis guidelines and best practices should be utilized in concert with RSV testing data to support clinical recommendations for appropriate RSV testing and palivizumab administration.
3. Medicaid will begin authorizing Synagis® on November 15, 2013, for use beginning December 1, 2013. Medicaid reimbursement is not available for Synagis® until December 1, 2013. The *Request for Drug Prior Authorization* form is available at http://medicaidprovider.hhs.mt.gov/pdf/forms/2012/requestfordrugpriorauthorization.pdf or by visiting http://www.rsv.mt.gov.[6]

For more information please contact the Montana Communicable Disease Epidemiology Program at 406-444-0273.

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