Health Advisory – Mumps

Five confirmed cases of mumps have been identified in Mecklenburg County residents in 2017, and three of these cases are known to be HIV positive. All cases were in adults under 50 years of age, and the majority are known to be up-to-date on measles-mumps-rubella (MMR) vaccine. We ask that you maintain a high index of suspicion for mumps in this population. This memo is intended to remind clinicians of the reporting, testing, prevention and control measures for mumps as well as the importance of documented immunity for all healthcare workers.

Diagnosis:
While mumps is best known for causing epidemic parotitis, it is also a cause of sporadic parotitis in the U.S. Other causes of sporadic parotitis include parainfluenza viruses, Epstein-Barr virus, influenza A, Coxsackie A virus, echovirus, HIV, tumors and obstructions such as salivary gland stones. Rapid tests to rule out mononucleosis and streptococcal infection are recommended. The preferred mumps tests are RT-PCR and viral culture performed on a swab of the buccal mucosa near the affected gland, collected no later than 8 days after the beginning of parotitis/swelling. These tests are available through the State Laboratory of Public Health (SLPH) with prior approval and through commercial or hospital-based laboratories.

To request approval for mumps testing at SLPH, contact the Communicable Disease Branch Epidemiologist on call (919-733-3419) or a Communicable Disease Nurse at Mecklenburg County Public Health (office 980-314-9201; after-hours 704-432-0871). Serological tests can be difficult to interpret particularly if the person is vaccinated. Negative laboratory results do not necessarily rule out the diagnosis of mumps.

Prevention:
Vaccination prior to exposure is the best way to prevent mumps. Persons without evidence of immunity should be brought up-to-date with age appropriate MMR vaccination (one or two doses). Persons born before 1957 are considered immune based on a high likelihood of exposure during childhood. It is important to recognize that mumps can occur in vaccinated people. During mumps outbreaks in highly vaccinated communities, the proportion of cases that occur among people who have been vaccinated may be high. This should not be interpreted as
meaning that the vaccine is not effective; people who have not been vaccinated against mumps have a much higher attack rate than those who have been fully vaccinated.

Control:
Persons with mumps are considered infectious from 2 days before until 5 days after the onset of parotitis. Mumps is spread through direct contact with the oral or respiratory secretions of an infected person. Those with suspected or confirmed mumps should stay at home from work or school during this period and stay in a separate room from other people if possible. Standard and droplet precautions should be used in healthcare settings.

Healthcare facilities should ensure healthcare workers have presumptive evidence of immunity, defined as: written documentation of vaccination with two doses of MMR vaccine administered at least 28 days apart; laboratory evidence of immunity; laboratory confirmation of disease; or birth before 1957. Healthcare workers who lack evidence of immunity and have unprotected exposure to mumps (i.e. being within three feet of a patient with a diagnosis of mumps without the use of proper personal protective equipment) will be excluded from work from the 12th day after the first unprotected exposure through the 25th day after the last exposure. There is no approved post-exposure prophylaxis regimen for mumps.

Reporting:
Mumps is a reportable condition in N.C. If you suspect a patient or healthcare worker is infected with mumps, we urge you to contact the Mecklenburg County Public Health Communicable Disease Nurse as soon as mumps is suspected (office 980-314-9201; after-hours 704-432-0871; facsimile 704-353-1302) or NC Division of Public Health Epidemiologist on-call (office 919-733-3419; after-hours 919-733-3419).

Resources:
Additional information about mumps may be found on the CDC website at https://www.cdc.gov/mumps/hcp.html