GCHD
GRANT COUNTY HEALTH DISTRICT

EPI-UPDATE

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Mumps Update

There are over 580 probable and confirmed cases of mumps in Washington from October 2016-early March 2017, including cases in Benton, Ferry, Grant, King, Okanogan, Pierce, Skagit, Snohomish, Spokane, Stevens, Thurston and Yakima Counties. GCHD is encouraging everyone to take precautions to help stop the spread of the illness.

In Grant County, mump reports began January 16th with the first confirmed case being January 25th which initiated the outbreak.

Grant County has 25 confirmed cases, one mumps case is in a student at Parkway School located in Ephrata and they other 24 cases are at Job Corps in Moses Lake.

GCHD is asking healthcare providers to:

- Remain vigilant for other possible mumps cases in the community, test those suspected for mumps using correct and approved approaches (PCR buccal swab, urine test).
- **PCR testing for mumps should not be performed until onset of parotitis (or orchitis/oophoritis) AND no later than 10 days after onset.**
- Provide proper isolation and exclusion information to suspect cases (5 days after symptoms onset).
- Contact infection control staff when a suspect mumps case is going to be seen.
- Contact GCHD if you have a suspect mumps case. Public health nurses will continue to identify and investigate any additional cases of mumps. GCHD and Washington State Department of Health (DOH) are working collaboratively to facilitate diagnoses and laboratory testing.

When to test for mumps:

Signs and Symptoms

Fever, headache, muscle aches, tiredness, hearing loss, loss of appetite, **followed by parotitis** (swelling of salivary glands). After puberty, can cause painful, swollen testicles (males) or ovaries (females). Other presentations: aseptic meningitis, encephalitis, pancreatitis. Can be asymptomatic.

Case classifications

Clinical definition: Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis (testicular swelling) or oophoritis (swelling of ovary) unexplained by another more likely diagnosis.

- **Confirmed case:** meets clinical definition or other acute illness characterized as aseptic meningitis, encephalitis, hearing loss, or pancreatitis AND confirmed by mumps PCR or culture.
- **Probable case:** meets clinical definition AND positive test for serum anti-mumps IgM antibody, OR epi-linked to another probable or confirmed case or linkage to a community (defined by public health) during a mumps outbreak.
- **Suspected case:** parotitis, acute salivary gland swelling, orchitis, or oophoritis unexplained by another more likely diagnosis, OR positive lab result with no mumps clinical symptoms (with or without epi-link).

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TO REPORT A NOTIFIABLE CONDITION:

PHONE
(509) 766-7960
FAX
(509) 764-2813
24 HOUR REPORTING LINE
(509) 398-2083
Communicable Disease Fax
(509)764-2813

If conducting a PCR test, you need to notify GCHD as soon as possible so that we can do everything we can to help prevent the spread of this contagious infection.

Please report suspected cases to GCHD at (509) 766-7960 for investigation and coordination of laboratory testing.

County	Cases*
Benton County	1
Ferry County	3
Grant County	22
King County	219
Okanogan County	1
Pierce County	56
Skagit County	8
Snohomish County	10
Spokane County	259
Stevens County	1
Thurston County	3
Yakima County	3
Total	**586**

Influenza Update and Influenza-associated parotitis

Flu is currently present regionally in Washington State and numbers have been decreasing significantly. There have been 207 lab-confirmed deaths reported for the 2016-2017 influenza season; 199 influenza A, four influenza B, and four not reported. All deaths have occurred in people with underlying health conditions, or in people with no pre-existing conditions but who are elderly. One death occurred in a child under 10. *Note that these counts reflect only deaths officially reported to the Washington State Department of Health.*

Testing:
CDC guidance on diagnostic testing for influenza is available at: www.cdc.gov/flu/professionals/diagnosis/rapidlab.htm
Additional resources:
www.doh.wa.gov/Portals/1/Documents/5100/420-100-FluUpdate.pdf
Long-term care facility information:
www.doh.wa.gov/Portals/1/Documents/5100/fluoutbrk-LTCF.pdf

Influenza-associated parotitis
Patients with influenza-associated parotitis may not always have respiratory symptoms at the time of parotitis or in the days leading up to parotitis. **CDC suggests that influenza be included in the differential diagnoses for acute viral parotitis during the influenza season even in the absence of respiratory symptoms.** Based on the current evidence, if the patient is not presenting in the midst of a mumps outbreak, CDC recommends that clinicians test for mumps virus infections and, if it is influenza season, also consider testing for influenza.

Who is at risk for developing acute parotitis after influenza? Parotitis after influenza appears to occur in people of all ages but mostly school-aged children and more commonly males. While still rare, influenza-associated parotitis appears to occur more often after infection with influenza A (H3N2) viruses.

In the context of a mumps outbreak: If the patient has acute parotitis and is suspected of having mumps infection because s/he is epidemiologically linked to an ongoing outbreak, testing for mumps infection is a priority as the parotitis is most likely due to mumps virus infection. **In the context of an outbreak, a negative test result for mumps does not rule out mumps as a diagnosis. However, testing for alternative pathogens should also be considered, including testing for influenza if influenza is circulating in the community.**

Resources:
www.cdc.gov/flu/about/season/questions-answers-parotitis.htm

www.doh.wa.gov/Portals/1/Documents/5100/420-065-Guideline-Mumps.pdf

Arboviral Disease

Many countries in the Americas are continuing to experience simultaneous outbreaks of arboviral diseases spread by the Aedes mosquito. Agents include dengue, chikungunya, and Zika viruses, all which can cause febrile illness with rash, myalgia, or arthralgia. Many of the affected regions are popular destinations for travelers from the US seeking warmer climates, such as Mexico, Central America, and the Caribbean. As a result, obtaining detailed travel histories from patients presenting with compatible symptoms and then performing the necessary laboratory testing has become even more important to identify etiology of suspect cases.

Zika Virus-Areas with confirmed spread of Zika virus are still increasing and now include two areas within the continental U.S.—Brownsville, TX and Miami-Dade County (Miami Beach)—both of which are under cautionary travel advisories for Zika virus.

CDC map of areas with current Zika virus transmission: www.cdc.gov/zika/geo/index.html

The top priority for the public health response to Zika is to protect pregnant women because of the risks associated with Zika virus infection during pregnancy. It is critical that travel histories and travel intentions are discussed with pregnant patients during all prenatal care visits. CDC continues to recommend that pregnant women avoid travel to affected areas, if possible. Additionally, travel histories of sex partners of pregnant patients must also be assessed as Zika virus can be sexually transmitted from infected partners, including those who are asymptomatic. Pregnant women should be advised against unprotected sex with a partner with recent travel history to affected countries.

Full CDC Zika virus recommendations for healthcare providers can be found here: www.cdc.gov/zika/hc-providers/index.html

Zika virus testing is available through Washington State Department of Health (DOH) for patients meeting criteria and is arranged through the GCHD. Current testing criteria and guidelines can be found on DOH's website at: www.doh.wa.gov/YouandYourFamily/IllnessandDisease/ZikaVirus/

For questions about Zika virus testing at DOH, call Amber at (509) 766-7960. ext. 14.
Zika virus intake forms should be faxed to (509) 764-2813.

Surveillance Changes for Multidrug-resistant organisms (MDRO)

Emerging mechanisms of antibiotic resistance are a serious threat to health. Recent US reports of plasmid-mediated colistin-resistant *E. coli* (mcr -1) and multidrug resistant *Candida auris* prompted US Centers for Disease Control to request that these organisms be reported to local or state public health. Please see relevant CDC health alerts/reports available here:
mcr-1: health.mo.gov/emergencies/ert/alertsadvisories/pdf/cdc-advisory61316.pdf
Candida auris: www.cdc.gov/mmwr/volumes/65/wr/mm6544e1.htm?s_cid=mm6544e1_w

DOH has conducted surveillance for CRE since October 2012. The PHL receives approximately 15-30 CRE isolates per month, and almost 12% produce a carbapenemase. Detailed CRE surveillance summary data are available on the DOH CRE Surveillance webpage at www.doh.wa.gov/DataandStatisticalReports/DiseasesandChronicConditions/CommunicableDiseaseSurveillanceData/CRESurveillance. The CRE reporting and investigation guideline at http://www.doh.wa.gov/Portals/1/Documents/5100/420-097-Guideline-CRE.pdf has recently been updated with new information about infection control recommendations for inpatient settings.

Washington MDRO surveillance has also identified several CR-*Pseudomonas* and CR-*Acinetobacter* isolates with carbapenemase genes, including in 2 residents of long term care without any international travel. DOH is initiating sentinel surveillance for CR-*Pseudomonas* and CR-*Acinetobacter* in order to estimate the prevalence of carbapenemase genes in these isolates and to identify patients who require additional infection precautions.

PHL recently communicated with Washington clinical labs about the new MDRO surveillance. The communication is available at: www.doh.wa.gov/Portals/1/Documents/2700/505068-2016NovDec.pdf. DOH will be contacting select labs directly to request that they serve as sentinel labs for the CR-*Pseudomonas* and CR-*Acinetobacter* surveillance.

Washington State Department of Health is changing surveillance for multidrug resistant organisms (MDRO). In addition to ongoing surveillance for carbapenem-resistant Enterobacteriaceae (CRE), beginning January 2017, Department of Health requests submission of:

- Carbapenem-resistant (CR) *Pseudomonas* species and CR-*Acinetobacter* species
- Colistin-resistant *E.coli*, *Klebsiella*, *Enterobacter*, *Pseudomonas* and *Acinetobacter*
- Unusual *Candida* species e.g., *C. auris*, *C. glabrata*, *C. haemulonii*, and any *Candida* not identified when species identification is performed (i.e. not in a laboratory database)

Providers are asked to submit clinical isolates to Washington State Public Health Laboratories (PHL) for testing for carbapenemase production, plasmid-mediated Colistin-resistance, or other resistance.

- Use standard precautions for patients infected or colonized with these organisms and ensure appropriate daily as well as terminal cleaning and disinfection of the patient's room.
- Sentinel laboratories will be asked to submit a subset of more common isolates such as CR-*Pseudomonas* species.
- Please report to local health jurisdiction confirmed plasmid-mediated colistin resistance or carbapenemase production in *E. coli, Klebsiella*, *Pseudomonas* or *Acinetobacter*.

Contact Kelly Kauber at 206-418-5589 or kelly.kauber@DOH.wa.gov with questions or comments.

Table 1. Resistance Criteria for Washington State MDRO Surveillance

Genus/species	Antibiotic Susceptibility Criteria
CR-E. coli *CR-Klebsiella* spp. *CR-Enterobacter* spp.	Resistant to ≥1 carbapenem: MIC≥4 mcg/ml for meropenem, imipenem, and doripenem **OR** MIC ≥ 2 mcg/ml for ertapenem **OR** Kirby-Bauer zone of inhibition diameter ≤19 mm for meropenem, imipenem, and doripenem **OR** Kirby-Bauer zone of inhibition diameter ≤18 mm for ertapenem **AND/OR** Resistant to colistin: MIC ≥4 µg/ml
CR-*Pseudomonas* spp.	Resistant to ≥1 carbapenem: MIC ≥8 µg/mL for any carbapenem **OR** Kirby-Bauer zone of inhibition diameter ≤15 mm for any carbapenem **AND/OR** Resistant to colistin: MIC ≥4 µg/ml
CR-*Acinetobacter* spp.	Resistant to ≥1 carbapenem: MIC ≥8 µg/mL for any carbapenem **OR** Kirby-Bauer zone of inhibition diameter ≤14 mm for doripenem and meropenem **OR** Kirby-Bauer zone of inhibition diameter ≤18 mm for imipenem **AND/OR** Resistant to colistin: MIC ≥4 µg/ml

Public Health
Prevent. Promote. Protect.
Grant County Health District

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Grant County Notifiable Conditions

	Jan-Feb		Jan-Feb
DISEASE/CONDITION	**2017**		**2016**
Botulism	0		<5
Blood Lead – Child	0		<5
Campylobacter	<5		<5
Chlamydia	**36**		**59**
Cryptosporidium	0		0
Shiga toxin E. coli (STEC)	0		0
Giardia	0		0
Gonorrhea	**16**		**18**
Hepatitis A	0		0
Hepatitis B (chronic)	<5		0
Hepatitis C (chronic)	<5		8
Hantavirus	0		0
Herpes Simplex	<5		<5
HIV	0		0
Influenza Deaths	<5		0
Listeriosis	0		0
Malaria	0		0
Measles	0		0
Meningococcal	<5		0
Mumps	<5		0
Pertussis	0		0
Rabies PEP	0		0
Relap. Fever/Lyme	0		0
Rubella	0		0
Salmonella	<5		0
Shigella	0		<5
Syphilis	<5		<5
Tuberculosis	0		0
Yersiniosis	0		0
West Nile Virus	0		0
Unexplained Death	0		0
Zika	0		0
Totals	**73**		**98**

Syphilis

GCHD is currently monitoring rising syphilis rates in the county. From 2015-2016, we saw a 17% increase in the total number of cases. While our syphilis counts are still lower than gonorrhea and chlamydia, the counts have increased annually over the last four years.

Providers should continue to screen all pregnant women at the first prenatal visit; retest early in the third trimester and at delivery if at high risk, at least annually all sexually active men who have sex with men (MSM); every 3 to 6 months if at increased risk. Consult screening recommendations on the CDC website for more information: www.cdc.gov/std/prevention/screeningreccs.htm

Questions: Contact Stephanie Lafferty at GCHD, 509-766-7960 ext. 36 or slafferty@granthealth.org