Yakima Health District BULLETIN

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Inside this issue:

Influenza Immunization

Influenza immunization season is upon us, although the influenza season itself typically arrives in December or January. In addition to prioritizing vaccination efforts toward individuals with medical conditions that place them at higher risk for severe morbidity and morality (e.g., diabetes mellitus, chronic obstructive lung disease, asthma, congestive heart failure, and pregnancy—among others), the Centers for Disease Control and Prevention (CDC) recommends routine annual vaccination for all individuals greater than 6 months of age. Vaccination can begin as soon as supplies arrive from distributors.

This year's trivalent formulations include hemagglutinin derived from the following (including a new adjuvant trivalent vaccine designed for patients >65 years of age):

- A/California/7/2009 (H1N1)–like virus,
- A/Hong Kong/ 4801/2014 (H3N2)–like virus, and
- B/Brisbane/60/2008–like virus (Victoria lineage).

The quadrivalent products will contain the same three antigens above, plus an additional influenza B virus hemagglutinin, derived from a B/Phuket/3073/2013–like virus (Yamagata lineage). CDC makes no recommendation of any one product over another. However, **live attenuated influenza vaccine is no longer recommended for use** due to observation of low efficacy in recent years.

Full background details on CDC recommendations for influenza vaccine can be viewed at http://www.cdc.gov/flu/professionals/acip/.

For a list of local sites where your patients can receive influenza immunization, visit http://www.yakimacounty.us/281/Flu-Shot-Locations.

School Immunization Requirement Enforcement

School is back in and it is the time of year when students who are not in compliance with state immunization requirements will be notified. Generally, the parent/guardian receives a letter from the school or school district providing a list of the missing requirements and giving a grace period for fulfilling these requirements. Strengthening enforcement of the state's school immunization requirements is high on the Washington State Department of Health's (DOH's) agenda, so you may experience higher-than-usual volume for updating students' immunization status. In addressing such students, please recall that **Washington State law requires a licensed health care provider to sign the Certificate of Exemption for a parent or guardian to exempt their child from school and child care immunization requirements.** The health care provider's signature verifies that the clinician gave the parent or guardian information about the benefits and risks of immunization. Fortunately, exemption rates in Yakima County are among the lowest in the state (1-2%). For more information on school immunization requirements addressing students in kindergarten through grade 12, please visit http://www.doh.wa.gov/CommunityandEnvironment/Schools/Immunization.

Safe Deliveries

The Washington State Hospital Association, in partnership with the American Congress of Obstetrics and Gynecology, the Washington State Department of Health, and numerous other relevant maternal-child health organizations, has developed a bundle of evidence-based guidelines addressing all stages of the maternity continuum: pre-pregnancy, pregnancy, labor-and-delivery, and post-partum. Areas of emphasis include reducing early elective deliveries, increasing breastfeeding of infants, standardizing care elements during pregnancy, and establishing a robust pre-pregnancy agenda for health and well being.

The pre-pregnancy bundle of recommendations highlights family planning, management of pre-existing medical conditions, sexually transmitted infections, nicotine and smoking, substance abuse, domestic violence, toxins, medications, and folic acid, among others.

Please consider incorporating relevant aspects of the Safe Deliveries bundles into your practice. For more information, please visit http://www.wsha.org/quality-safety/projects/safe-deliveries/.

Zika and other Mosquito-Borne Viruses

As you are now probably aware, endemic transmission of Zika virus has now spread to south Florida, involving at least two neighborhoods in the Miami metropolitan area. CDC is updating almost weekly its guidelines addressing suspected exposure in pregnant women and evaluation of illness in suspected cases. In general, asymptomatic pregnant women should undergo serologic testing 2-12 weeks after exposure. When evaluating suspected Zika virus cases, the primary operating principle now in effect is that both serum and urine should be collected for polymerase chain reaction, ideally within the first 14 days of illness. The serum of those with negative PCR results will also be tested for anti-Zika IgM antibodies. Suspected cases should also be tested simultaneously for chikungunya, dengue, and West Nile virus through commercial laboratories. To-date, 33 cases of Zika virus infection have been confirmed in Washington State (one in Yakima County).

Meanwhile, other mosquito-borne virus infections reported in local residents during 2016 are as follows:

Condition	Yakima County	Washington State
West Nile Virus	1	6
Chikungunya	0	13
Dengue	2	20

Because the clinical syndromes of these conditions overlap significantly (fever, arthralgia, rash, myalgia, conjunctivitis, neurologic dysfunction) and West Nile virus is present in Yakima County mosquitoes, YHD recommends that you consider simultaneous testing for all four agents when evaluating a clinically compatible case. When doing so, we recommend that you consult existing guidelines and **contact YHD at (509) 249-6541 for assistance in optimizing specimen collection and submission.**

For more information on these mosquito-borne infections, please visit the following sites.

Zika Virus
http://www.cdc.gov/zika/index.html
http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/ZikaVirus

Other Mosquito-Borne Viruses
http://www.cdc.gov/Chikungunya/index.html
http://www.cdc.gov/dengue/index.html
http://www.cdc.gov/westnile/index.html
http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ArboviralDisease

New Treatment Guidelines for Drug-Sensitive Tuberculosis Disease

Guidelines addressing treatment of active tuberculosis (TB) were recently published in *Clinical Infectious Diseases* (http://cid.oxfordjournals.org/content/early/2016/07/20/cid.ciw376.full.pdf+html) after not having been updated since 2003. The American Thoracic Society, the Infectious Diseases Society of America, and the Centers for Disease Control and Prevention developed these guidelines, with additional participation from other relevant organizations. Key updates include the timing of initiation of anti-retroviral therapy in the context of human immunodeficiency virus (HIV) co-infection, use (or not) of adjunctive corticosteroid therapy with certain sites of involvement, use of directly observed therapy (DOT) and case management, and de-emphasis of highly intermittent therapy (e.g., once- or twice-weekly) in favor of daily or thrice-weekly therapy for most cases during the continuation phase of treatment.

During 2011-2015, 36 cases of active TB (an average of 7.2 annually) were reported in Yakima County. YHD estimates that approximately 7,500-15,000 Yakima County residents have untreated latent TB. Virtually all cases of active TB in Yakima County are treated via DOT with medical and nursing case management through YHD's TB Control Program. However, community-based clinicians remain on the front lines with respect to diagnosis of suspected active TB, as well as in the testing and treatment of latent TB.

Key reminders from YHD with respect to primary care provider roles in TB control and prevention include:

- Radiography, not a tuberculin skin test (TST) or interferon gamma release assay (IGRA), is the recommended initial diagnostic test for diagnosis of active TB. If radiographic findings are suggestive of active TB, then collect appropriate specimens (e.g., early AM sputum on 3 consecutive days) and submit for AFB smear-and-culture, as well as for TB PCR on 1-to-2 of these specimens. TSTs and IGRAs are ancillary tests in the diagnosis of active TB, cannot differentiate between active and latent TB, and are negative in up to 25% of active cases of TB.
- **Avoid the use of fluoroquinolones for treatment of lower respiratory tract infections when TB is reasonably included in the differential diagnosis** (e.g., foreign-born patient with upper zone infiltrates). The anti-mycobacterial activity of this drug class can confound or delay the diagnosis of TB and can also select for fluoroquinolone resistance.
- IGRAs (e.g., Quantiferon TB Gold In-Tube, T-Spot) are the preferred tests for detection of latent TB in BCG-vaccinated patients because—unlike the purified protein derivative used in the TST--they employ antigens not present in BCG.
- **Patients not at epidemiologic risk for having TB should generally not be tested for latent TB.** Rare exceptions include administrative testing and certain medical conditions (e.g., HIV infection, launch of severe immunosuppression for treatment of autoimmune disease or in preparation for organ transplantation).
- Diagnostic criteria for latent TB include: a positive test for TB infection, absence of TB symptoms, and a normal chest radiograph (or stable fibrotic changes with negative sputum AFB smears-and-cultures).
- A decision to treat latent TB should include an individualized risk-benefit assessment and patient-centered counseling prior to offering or initiating therapy. In some cases, especially among patients >50-60 years of age without medical risk factors for reactivation, the future benefits or treatment may not exceed the current risks of treatment. For guidance in assessing risks and benefits, include www.tstin3d.com in your list of resources for consultation.
- Treatment of latent TB is rarely an urgent matter. Ensure that active TB has been reasonably excluded and the patient is in his-or-her baseline health before launching treatment for latent TB.
- The preferred regimen for treatment of latent TB is rifampin given daily for four months (or six months in children). Completion rates are higher and risk of severe liver injury is lower than with use of isoniazid. Other acceptable regimens include isoniazid given daily for nine months OR isoniazid-plus-rifapentine given once weekly for 12 doses (CDC recommends DOT with the latter regimen). YHD generally

reserves isoniazid for use in patients with incompatible rifampin-associated drug interactions, HIV infected patients, small children, and patients who fail to tolerate rifampin.

For more information about diagnosis of active TB and testing and treatment for latent TB, visit the following web sites:

Centers for Disease Control and Prevention
http://www.cdc.gov/tb/default.htm

Curry International Tuberculosis Center (University of California San Francisco)
http://www.currytbcenter.ucsf.edu/topics-interest/diagnosis
http://www.currytbcenter.ucsf.edu/topics-interest/latent-tb-infection

TB Project ECHO (webinar-based continuing education from the University of Washington)
http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/Tuberculosis/HealthcareProfessionals/TBECHO

New Treatment Guidelines for Coccidioidomycosis

The Infectious Diseases Society of America also recently released guidelines for treatment of coccidioidomycosis (http://cid.oxfordjournals.org/content/early/2016/07/06/cid.ciw360.full.pdf+html). Traditionally associated with exposure to airborne arthroconidia in association with disturbance of soil in the San Joaquin Valley of central California, the southwestern United States, and Mexico, recent epidemiologic and environmental investigation has documented nine locally acquired cases since 2010 in Yakima, Benton, Franklin, and Walla Walla Counties. Although treatment of coccidioidomycosis would generally be undertaken by or in close consultation with an infectious diseases specialist, primary care providers remain on the front lines with respect to recognition of syndromes suggestive of the disease. The general principle is to consider the diagnosis in patients with compatible clinical presentations (e.g., febrile cough illness or extrapulmonary disease with possible exposure and consistent radiographic findings). Often these patients have not responded to treatment for community-acquired pneumonia. The clinical and radiographic presentation overlaps with tuberculosis, other mycobacterial disease, and other endemic mycoses. Testing for coccidioidomycosis generally consists of serologic testing and submission of respiratory (or extrapulmonary) specimens for microscopy and fungal culture. Often, testing for mycobacterial and other fungal infections should proceed simultaneously.

For more information on diagnosis of coccidioidomycosis, please visit:
http://www.vfce.arizona.edu/
http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/Coccidioidomycosis
http://www.doh.wa.gov/Portals/1/Documents/5100/420-143-Fact-CocciClinicianFAQ.pdf

Hepatitis C Update

Hepatitis C virus (HCV) remains a growing source of morbidity and mortality nationwide, with mortality from HCV now outnumbering deaths due to all other nationally notifiable conditions combined (Ly K, et al. *Clin Infect Dis* 2016;62:1287). Although the vast majority of this burden falls upon individuals born during 1945-1964, recognition of incident HCV infection among young drug injectors suggests that the current wave of middle-aged cases will not be the end of the hepatitis C story. A recent descriptive epidemiologic analysis of hepatitis C by the Washington State Department of Health (DOH) highlighted several features of the statewide situation:

- A gradual increase in HCV deaths up through 2010, with a leveling off since at about 600-650 annually (~7-8 per 100,000 per year).
- The peak age group for HCV-mortality is 45-64 years, with men outnumbering women at a ratio of about 2.5:1.

- HCV fatalities are more likely to be of white-non-Hispanic race-ethnicity and of lower educational attainment than the general population.
- During 2010-2014, 109 hospitalizations for hepatitis C in Yakima County were ascertained, with total costs for these hospitalizations approaching $3 million.
- At least 50-70% of new infections are attributed to transmission through drug injection.

DOH's agenda for mitigation of the problem includes the following:

- Identify people with HCV infection, link them to care, and assure they receive treatment to become cured.
- Prevent new HCV infections.
- Strengthen data systems and increase data use around tracking of HCV infections.

Currently, no funding stream supports this vision and no resources for HCV prevention and control have been granted to Yakima County.

Key actions healthcare providers can take to support this general theme include:

- Screening for HCV infection in all patients born 1945-1964, as well as in other patients with risk factors for acquisition.
- Referring infected patients for further evaluation and, if appropriate, treatment.
- Supporting efforts to mitigate transmission through drug injection by following evidence-based pain treatment guidelines.
- Providing or making referrals for medication assisted treatment (e.g., buprenorphine, naltrexone) to opiate-or-opioid dependent patients.
- Providing complete demographic, risk, and medical information to YHD when we are completing a case report for HCV infection.

For more information on HCV testing, diagnosis, treatment and prevention, please visit the following websites:

Hepatitis C for Healthcare Providers (general FAQ)
http://www.cdc.gov/hepatitis/hcv/hcvfaq.htm

Hepatitis C Online (University of Washington; online education for providers)
http://www.hepatitisc.uw.edu/

Pain Treatment Guidelines
http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf
http://www.cdc.gov/drugoverdose/prescribing/guideline.html

Medication Assisted Treatment (for opiate/opioid addiction)
http://www.samhsa.gov/medication-assisted-treatment

Recent Health Care Provider Advisories & Alerts

To access, visit http://www.yakimacounty.us/1434/Health-Advisories-and-Alerts

- Influx of Fentanyl-laced Counterfeit Drugs, August 31
- Shigellosis Associated with Summer Camp, August 23
- TB Exposure at Seattle Cancer Care Alliance, August 16
- Zika Virus Testing for Exposed Pregnant Women & Symptomatic Patients, August 4
- Acute Flaccid Myelitis, July 28
- Testing for Zika Virus, June 27
- West Nile Virus in Yakima County Mosquitoes, June 6

YAKIMA HEALTH DISTRICT

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Confidential Fax: (509) 249-6628

http://www.yakimapublichealth.org

	Cases				
Notifiable Condition *(includes confirmed and probable cases)*	**Jan – Aug**	**Jan – Aug**	**Jan – Aug**	**Total Cases by Year**	**Total Cases by Year**
	2016	**2015**	**2014**	**2015**	**2014**
Campylobacteriosis	99	117	57	153	97
Chlamydia	1071	1046	994	1597	1507
Cryptosporidiosis	2	4	7	7	7
Genital Herpes - Initial	44	86	40	111	60
Giardiasis	19	16	9	25	16
Gonorrhea	296	244	248	376	406
Hepatitis A acute	0	0	0	0	0
Hepatitis B acute	2	0	0	0	0
Hepatitis B chronic	7	13	7	18	11
Hepatitis C acute	4	1	2	1	2
Hepatitis C chronic	157	146	198	223	300
HIV/AIDS Cumulative Living	199	194	195	196	195
HIV/AIDS Deaths	1	3	0	3	2
HIV/AIDS New	6	2	7	5	8
Meningococcal Disease	0	0	1	0	1
Pertussis	4	11	15	11	18
Salmonellosis	19	33	30	49	53
Shigellosis	9	1	12	2	14
STEC (enterohemorrhagic E. coli)	12	14	10	20	15
Syphilis - Primary and Secondary	9	4	8	7	15
Tuberculosis	8	10	2	12	4

Notifiable Conditions Summary Jan - Aug 2016