Yakima Health District BULLETIN

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New Statewide Laboratory Surveillance System for MRSA

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As reported in the January 2007 edition of this bulletin <http://www.co.yakima.wa.us/health/documents/bulletin/bulletin6_1.pdf>, methicillin-resistant *Staphylococcus aureus* (MRSA) now accounts for 50% or more of *S. aureus* isolates in Yakima County. It was also noted that, while the genotypic and antimicrobial resistance characteristics of hospital and community-acquired MRSA remain distinct, the ecology of the two organisms is starting to overlap. National data suggest that up to 50% of hospital-detected infections are now of the community-acquired genotypes.

There has been no shortage of recent media reports addressing MRSA in the local, regional, and national news. Governor Gregoire has directed the Washington State Department of Health (DOH) to convene a panel of scientific experts to provide evidence-based recommendations for MRSA prevention and control by early 2008; to initiate statewide laboratory-based surveillance for invasive MRSA; and to continue to work with health care providers and institutions, local public health agencies, and the community on education efforts related to MRSA.

DOH has already convened its scientific panel, which consists of 17 members representing clinical medicine, laboratory services, epidemiology, and health care administration http://www.co.yakima.wa.us/health/documents/scientific_panel.doc.

DOH has sent a letter to all *laboratory* directors in Washington State requesting that they report directly to DOH all isolates of oxacillin-resistant *S. aureus* that have been isolated from normally sterile sites (e.g., cerebrospinal fluid, pleural fluid, pericardial fluid, peritoneal fluid, synovial fluid, and normally sterile internal organs and tissues). The report should include the entire antimicrobial susceptibility pattern obtained for the isolate, the name of the requesting facility/provider, source of the clinical specimen, and a limited set of demographic information on the patient (name, gender, date of birth, and zip code). Reports should be sent directly by fax to DOH at (206) 418-5515. Alternatively, cases can be reported electronically via the Public Health Reporting of Electronic Data system. Duplicate or serial isolates from the same patient do not need to be reported. Reporting of MRSA isolates from invasive infections of non-sterile sites (e.g., skin, respiratory tract) is not specifically included in the request. Laboratories may consult with DOH to consider reporting such cases at their discretion.

Objectives for this laboratory-based surveillance effort include:

- quantifying and characterizing the incidence, geographic distribution and age characteristics of invasive MRSA infections;
- describing the distribution of body sites reported;
- characterizing the antimicrobial resistance profiles for reported isolates to guide local recommendations for empiric antimicrobial selection; and
- to track incidence and extent of drug resistance across time.

For questions regarding this new surveillance system, please contact Marcia Goldoft, MD (Acting State Epidemiologist, [206] 418-5433) or Michael Davisson (electronic reporting; [360] 236-4477). Please note that this statewide laboratory surveillance system is directed toward laboratories only and is operated by DOH. Clinicians and facilities are not required to, nor should they, report individual MRSA cases to YHD. Reporting of MRSA cases to YHD should be limited to suspected outbreaks, circumstances which implicate ongoing transmission associated with a particular site or individual, or other cases of imminent disease control significance.

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Meanwhile, YHD continues to recommend the following clinical approaches to identify and manage MRSA:

- Include MRSA in the differential diagnosis of soft tissue infections
- Avoid use of systemic antibiotics in superficial infections if local measures would be adequate (e.g., topical antimicrobials, warm compresses, incision-and-drainage).
- Collect an appropriate specimen for culture and sensitivity testing whenever feasible in the course of evaluating infections that will require antimicrobial therapy.
- First-line, empiric therapy for suspected community-acquired MRSA generally should include trimethoprim/sulfamethoxazole (with or without rifampin) or doxycycline (most isolates are resistant to macrolides, many are resistant to fluoroquinolones, and many have inducible resistance to clindamycin).
- Advise patients with soft tissue infections (and their household contacts) to cover skin lesions, practice frequent handwashing, and avoid contact with others and with shared fomites until after effective therapy has been initiated for at least 24-48 hours, a good clinical response has been observed, and wound drainage has ceased.
- For infections that are invasive, fail to respond to therapy, or are found to be extensively drug resistant, seek appropriate specialty consultation regarding antimicrobial and surgical management.
- Avoid use of vancomycin when reasonably effective alternative agents exist; strongly consider infectious diseases consultation whenever vancomycin will be used.

At the community level, the following due-diligence measures seem reasonable to promote for limiting further amplification of MRSA and other infections transmitted by contact.

- Wash hands frequently, especially after contact with potentially contaminated surfaces (or patients);
- Avoid shared use of personal and health care items whenever feasible (e.g., shavers, nail clippers, water bottles)
- Disinfect after each use items that are high-risk fomites for transmission (e.g., medical equipment, shared or multiple use equipment in gymnasiums and on sporting teams).
- Disinfect regularly (e.g., daily) other fomites that may also carry risk of transmission (e.g., toys and surfaces in child care settings, common surfaces in jails, homeless shelters and other congregate settings).
- Cover skin lesions that have discharge and seek prompt medical evaluation.

It is worth noting that occurrence of MRSA in a congregate setting (e.g., school, child care, nursing home) is not an indication for closure or cancellation of events. While review of the situation should occur and education or recommendations for control would be offered, YHD is unlikely to recommend any closures, cancellations, or extensive environmental cleaning beyond what is described above.

For more news and information on MRSA, visit:

- http://www.cdc.gov/od/oc/media/pressrel/2007/r071016.htm
- http://static.doh.wa.gov/Publicat/EpiTrends/07_epitrends/07-11-epitrends.pdf
- http://www.tpchd.org/page.php?id=12
- http://seattlepi.nwsource.com/opinion/340658_mrsa22.html

Conjugate Vaccine to Replace Polysaccharide Vaccine for Targeted Meningococcal Prevention among Children 2-10 Years of Age

Based on favorable results from immunogenicity studies in children 2-10 years of age, the Advisory Committee on Immunization Practices (ACIP) revised its recommendation to state that meningococcal *conjugate* vaccine (MCV4) is preferable to *polysaccharide* vaccine (MPSV4) for vaccination of children aged 2--10 years who are at increased risk for meningococcal disease.

These children include travelers to or residents of countries in which meningococcal disease is hyperendemic or epidemic, children who have terminal complement component deficiencies, and children who have anatomic or functional asplenia. Providers also may elect to vaccinate children aged 2-10 years who are infected with human immunodeficiency virus (HIV).

For children aged 2-10 years who have previously received MPSV4 and remain at increased risk for meningococcal disease, ACIP recommends vaccination with MCV4 three years after last receipt of MPSV4. Children who last received MPSV4 more than three years ago and remain at risk for meningococcal disease should be vaccinated with MCV4 as soon as possible.

For children at lifelong increased risk for meningococcal disease, subsequent doses of MCV4 likely will be needed. ACIP will make recommendations for revaccination with MCV4 as more data on duration of protection become available.

Please note that this is NOT a recommendation for *routine* MCV4 immunization of children 2-10 years of age. There is, however, a standing recommendation for routine MCV4 administration among all children 11-18 years of age. ACIP will be considering whether to extend this recommendation to younger children at a later date.

Note that persons with a history of Guillain-Barré syndrome (GBS) might be at increased risk for GBS after MCV4 vaccination; therefore, a history of GBS is a precaution to

administering MCV4. For children with a history of GBS, MPSV4 is an acceptable alternative for short-term (i.e., 3--5 years) protection against meningococcal disease.

Please remember that the Washington State Legislature (in RCW 70.95M.115) has prohibited children <3 years of age from receiving MPSV4 (*Menomune)* because it contains 25 mcg mercury per 0.5 ml, greater than the legally acceptable limit of 0.5mcg/0.5ml. While the law provides exceptions to this under the circumstances of a vaccine shortage, it does not specifically permit exclusion on the basis of medical judgment with parental consent. MCV4 (*Menactra*) contains no mercury.

Adapted from:
Centers for Disease Control and Prevention. Notice to Readers: Recommendation from the Advisory Committee on Immunization Practices (ACIP) for Use of Quadrivalent Meningococcal Conjugate Vaccine (MCV4) in Children Aged 2--10 Years at Increased Risk for Invasive Meningococcal Disease. MMWR 2007: 56(48).
www.cdc.gov/mmwr/preview/mmwrhtml/mm5648a4.htm?s_cid=mm5648a4_e.

RSV and Influenza Surveillance and Prevention

Reports from local laboratories indicate that the onset of respiratory syncytial virus (RSV) activity occurred during early October. Children <2 years of age with risk factors for severe RSV disease (e.g., prematurity, chronic lung disease) can benefit from receipt of immunoprophylaxis throughout the course of the RSV season. There are several caveats to the indications for the two available agents (palivizumab and RSV-IVIG), particularly affecting decisions about use in children born at 32-35 weeks gestation, as well as in children with congenital heart disease or underlying immunodeficiency. The American Academy of Pediatrics' guidelines can be viewed at http://pediatrics.aappublications.org/cgi/content/full/102/5/1211

Influenza transmission has yet to take hold in Yakima County, with only three laboratory confirmed cases, one of those confirmed as an Influenza A H1N1. Statewide influenza activity has thus far only consisted of sporadic cases. National laboratory surveillance shows mostly sporadic activity, as well, with an early predominance of H1N1. However, B and H3N2 viruses are also being detected. All isolated strains have matched or been closely related to this years' vaccine strains.

Annual influenza immunization is recommended for:

- all children, 6-59 months of age;
- all adults, 50 years and older;
- children and adults of any age with certain chronic metabolic, cardiovascular, or pulmonary conditions (e.g., diabetes, asthma, COPD, congestive heart failure);
- pregnant women;
- people who live or work in long-term care facilities;
- household contacts and caregivers of people in any of the above groups;
- health-care professionals;
- household contacts and caregivers of children, especially those in contact with babies under 6 months of age who are too young to be vaccinated; and
- anyone else who wants to reduce their chances of getting influenza.

Chemoprophylaxis with neuraminidase inhibitors (i.e., oseltamivir, zanamivir) should be considered for unvaccinated or recently-vaccinated high risk individuals once the influenza season has begun, as well as in control of institutional outbreaks for laboratory confirmed influenza A or B. These agents can also be effective in mitigating or shortening the duration of illness, especially when initiated within 24-48 hours of onset. Amantidine and rimantidine remain contraindicated for the uses described above due to widespread resistance in isolates obtained from recent years' surveillance.

Full recommendations for influenza immunization and chemoprophylaxis can be found at:
http://www.cdc.gov/flu/professionals/acip/index.htm
http://www.cdc.gov/flu/professionals/antivirals/index.htm

For weekly updates on sentinel laboratory surveillance during the respiratory virus season, visit
http://www.co.yakima.wa.us/health/commhealth/immproviders.htm.

Additional information on statewide and national influenza surveillance can be obtained through the following sites:

- http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.htm
- http://www.cdc.gov/flu/weekly/index.htm

Happy Holidays

from the Yakima Health District

In July of 2007 the Yakima Health District moved to our new location at:

1210 Ahtanum Ridge Drive
Union Gap, WA 98903

Phone numbers remain the same. For a complete listing of phone numbers for individual employees and programs please visit our website at
http://www.co.yakima.wa.us/health/info/contact_us.htm

YAKIMA HEALTH DISTRICT

1210 Ahtanum Ridge Drive
Union Gap, WA 98903

ATTENTION! NEW ADDRESS!

Reporting Line: (509) 249-6541
After hours Emergency: (509) 575-4040 #1
Toll Free: (800) 535-5016 x 541

Confidential Fax: (509) 249-6628

http://www.yakimapublichealth.org

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	Cases			Total Cases by Year	
Condition *(includes confirmed and probable cases)*	**Jan-Nov**	**Jan-Nov**	**Jan-Nov**	**Total Cases by Year**	**Total Cases by Year**
	2007	**2006**	**2005**	**2006**	**2005**
Campylobacteriosis	114	198	107	202	114
Cryptosporidiosis	16	6	7	7	7
Enterohemorrhagic E. coli	5	5	3	5	3
Giardiasis	41	26	26	31	28
Salmonellosis	30	32	52	34	52
Shigellosis	22	32	27	32	29
Hepatitis A acute	0	1	3	1	3
Hepatitis B acute	0	5	1	5	1
Hepatitis B chronic	11	10	12	11	14
Hepatitis C acute	1	1	2	1	2
Hepatitis C chronic	209	173	192	176	213
Meningococcal	3	1	0	1	2
Pertussis	37	20	184	21	188
Tuberculosis	11	15	14	16	14
HIV New	10	7	9	14	12
HIV Deaths	1	2	2	2	1
HIV Cumulative Living	152	139	127	132	118
Chlamydia	1073	1027	890	1120	973
Genital Herpes—Initial	40	65	91	70	99
Gonorrhea	107	156	120	166	138
Primary and Secondary Syphilis	0	3	1	3	2

Notifiable Conditions Summary Jan– Nov, 2007