



IDAHO DEPARTMENT OF  
HEALTH & WELFARE

# Disease Bulletin

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## New Treatment Option for Latent TB Infection: Impact in Idaho

Success in reducing the rate of active tuberculosis (TB) in the United States (see Figure on page 2) has led to a greater emphasis in the medical and public health communities on identifying and treating persons with latent infection (LTBI), as they are the great reservoir from which new cases arise. Worldwide, approximately 1/3 of persons are infected with TB; in the U.S., approximately 4% of persons are estimated to be infected. A person latently infected with TB has a 10%–15% lifetime risk of developing active disease; this risk can increase sharply in individuals who acquire chronic conditions such as diabetes, or are treated with immunosuppressing medications.

The current standard regimen for treating LTBI is a 9-month course of daily isoniazid (INH), supplemented with pyridoxine (vitamin B6) if the patient is at higher risk of INH toxicity.

Completion rates for those taking the 9-month regimen are generally low, ranging from 30%–60%; some of the completion failure is due to adverse events related to INH hepatotoxicity, peripheral neuropathy, or hypersensitivity reactions, but many persons drop out of therapy for unclear reasons. New, shorter regimens for treating persons infected with, but not ill from, TB are desperately needed to continue to decrease the incidence of TB in Idaho and the United States.

On December 8, 2011, the New England Journal of Medicine published the results of a study that demonstrated a new combination regimen consisting of INH and rifapentine for three months was not inferior to the standard 9-month regimen of INH currently used to treat LTBI. This study was followed by the publication of new guidelines by the Centers for Disease

NEW TREATMENT OPTION CONTINUED ON NEXT PAGE

## U.S. Army Public Health Command Implements Rabies Prevention Program

During a public health investigation of the August 2011 death of a U.S. Army soldier from rabies, it was determined that the soldier was infected from contact with a dog during deployment in Afghanistan. Other soldiers in the same unit reported seeking medical care for dog bites and not receiving rabies post-exposure prophylaxis (rPEP), or not reporting bites to their chain of command. As a result, the Department of Defense (DoD) has instructed individuals meeting the following three criteria to report for medical evaluation, which could occur in the U.S. (see <http://phc.amedd.army.mil/PHC%20Resource%20Library/Information%20for%20Providers.pdf>):

1. Soldiers or separated soldiers, DoD civilians,

and contractors who were eligible for military medical care during a deployment, and

2. Who had a possible animal exposure that occurred after March 1, 2010, and
3. Who had no medical evaluation or incomplete/undocumented evaluation of rPEP following the exposure.

Soldiers and separated soldiers returning to Idaho who have been screened for possible rabies exposure and have been advised to receive rPEP, or who have self-screened using the DoD screening questionnaire (see link at left), might contact Idaho healthcare providers for assistance in obtaining rPEP. Idaho public health districts do not provide

RABIES PREVENTION CONTINUED ON PAGE THREE

### OFFICE OF EPIDEMIOLOGY, FOOD PROTECTION, AND IMMUNIZATION

#### Idaho Department of Health and Welfare

P.O. Box 83720  
450 W. State Street,  
4th Floor  
Boise, Idaho 83720-0036  
[WWW.IDB.DHW.IDAHO.GOV](http://WWW.IDB.DHW.IDAHO.GOV)

#### IDAHO DISEASE BULLETIN CONTRIBUTING STAFF

**CHRISTINE G. HAHN, MD**  
State Epidemiologist

**LESLIE TENGESEN, PhD,  
DVM**  
Deputy State Epidemiologist

**JARED BARTSCHI, MHE**  
Epidemiology Program  
Specialist

**CARLA BRITTON, PhD, MS**  
Epidemic Intelligence Service  
Officer

**KRIS CARTER, DVM, MPVM**  
Career Epidemiology Field  
Officer

**PATRICK GUZZLE, MPH**  
Food Protection Program  
Manager

**MITCHELL SCOGGINS, MPH**  
Immunization Program  
Manager

**KATHRYN TURNER, PhD,  
MPH**  
Epidemiologic Data and  
Surveillance Program Manager

**ELLEN ZAGER HILL, MS,  
DLSHTM**  
Epidemiology Program  
Specialist



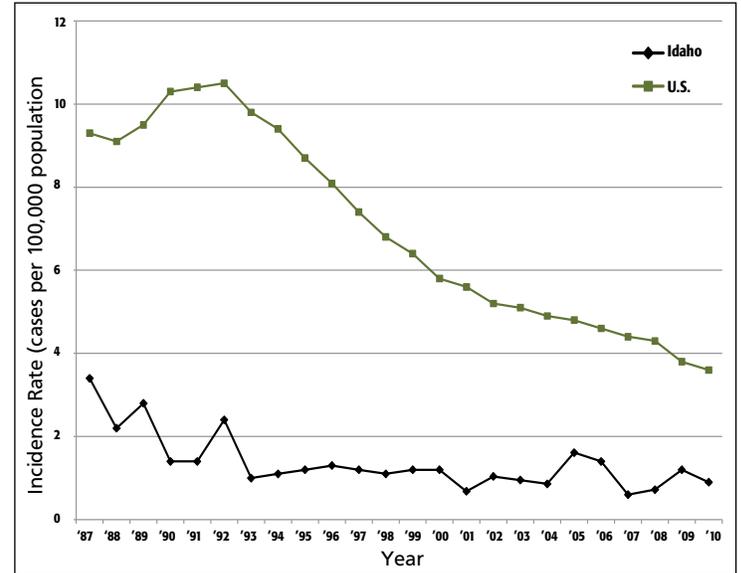
**NEW TREATMENT OPTION CONTINUED FROM PAGE ONE**

Control and Prevention on December 9, 2011, in the Morbidity and Mortality Weekly Report (MMWR) for the treatment of LTBI, which stated “The combination regimen of INH and rifampine given as 12 weekly directly observed therapy (DOT) doses is recommended as an equal alternative to 9 months of daily self-supervised INH for treating LTBI in otherwise healthy patients aged ≥12 years who have a predictive factor for greater likelihood of TB developing, which includes recent exposure to contagious TB, conversion from negative to positive on an indirect test for infection (*i.e.*, interferon-gamma release assay or tuberculin skin test), and radiographic findings of healed pulmonary TB.” This recommendation includes HIV-infected patients who are otherwise healthy and are not taking antiretroviral medications (see [www.cdc.gov/mmwr/preview/mmwrhtml/mm6048a3.htm?s\\_cid=mm6048a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6048a3.htm?s_cid=mm6048a3_w)).

While this is great news, there are challenges to implementing the new regimen. Most significantly, in clinical practices, it is not easy to arrange that the patient be observed while taking the 12 weekly doses. Although public health personnel provide DOT for persons with active pulmonary TB, additional resources to provide DOT for persons undergoing treatment for LTBI are limited. Additionally, in Idaho, the Division of Public Health has been able to offer free medications for persons on tuberculosis therapy for both active and latent infection; however, the cost of rifampine for the 12-week regimen is substantial, and the TB Program budget

cannot cover the additional cost. Thus, for the time being, this new rifampine-based regimen will probably be used only in selected circumstances in Idaho; the traditional INH regimen will still be utilized for most persons being treated for LTBI, and remains free to those providers requesting it for their patients.

Figure. Incidence rate of active tuberculosis cases—Idaho and the United States, 1987–2010.



# Two in the Tub: Reporting Waterborne Illness

In November 2010, a family that had stayed at an Idaho hotel stated in a review of the hotel posted on a travel website that five of seven children using the hotel pool and hot tub broke out with a rash. Is this event reportable in Idaho? If you had seen one of these children in your practice, should you have reported the event to public health? Test yourself by deciding if the statements below are correct or incorrect (the correct answers are revealed further in the article).

- 1a. I don't need to report this because no specific etiology was identified.
- 1b. I need to report this because more than one child was affected.

In February 2011, a young woman stated on her blog that she had commercial laboratory-confirmed *Pseudomonas aeruginosa* folliculitis following 30-minute soaks in a hot tub during one weekend at an Idaho rental vacation home, and her boyfriend had a single, similar lesion following one 5-minute soak in the hot tub. Is this event reportable in Idaho? If you had seen the young woman in your practice, should you have reported the event to public health?

Test yourself by deciding if the statements below are correct or incorrect.

- 2a. I don't need to report this because *Pseudomonas* is not specifically reportable.
- 2b. I don't need to report this because only one case was diagnosed.
- 2c. I need to report this because folliculitis due to *P. aeruginosa* was associated with hot tub use.
- 2d. I don't need to report this because the testing laboratory will report results from this event to Idaho public health.
- 2e. Both this event and the November 2010 event are reportable by the affected persons to the public health district in which the rental unit is located.

The correct statements are 1b and 2c; explanation follows.

- 1a. *Incorrect.* Clusters of unexplained acute illness are reportable within one working day (IDAPA 16.02.10 Section 260). A suspected or known etiology is not a condition for

reporting a cluster of unusual illness. Illness associated with a public access pool could indicate a significant risk to the public and could involve large numbers of persons. Rash outbreaks among pool users have been associated with improper chemical levels due to poor pool and pool equipment maintenance, as well as with *P. aeruginosa*.

- 1b. *Correct.* An aggregation of cases or suspected cases in time or place is a cluster. Similar illness in more than one child at the same time and location characterizes this event as a cluster.
- 2a. *Incorrect.* Each case or suspected case of waterborne illness is reportable within one working day (IDAPA 16.02.10 Section 270). A specific etiology is not required for reporting.
- 2b. *Incorrect.* A single case of suspected waterborne illness is reportable (IDAPA 16.02.10 Section 270).



## RABIES PREVENTION CONTINUED FROM PAGE ONE

or administer rPEP, but can assist providers with exposure evaluations and by providing information on prophylaxis.

According to current CDC guidelines, rabies post-exposure prophylaxis for previously unvaccinated persons should include administration of human rabies immunoglobulin (HRIG) 20 IU/kg body weight at the site of the wound and any remaining volume distal to rabies vaccine site; and a series of rabies vaccine, 1ml IM days 0, 3, 7, and 14 (also day 28 if the patient is immunosuppressed or on antimalarials). Persons who have been vaccinated previously or have a documented protective titer should not receive HRIG and require only 2 doses of vaccine, 1ml IM on days 0 and 3. Day 0 is the day the first dose of vaccine is administered. See [www.cdc.gov/rabies/resources/acip\\_recommendations.html](http://www.cdc.gov/rabies/resources/acip_recommendations.html) for more information. (See also page 4 regarding the availability of a new online course on rPEP). In Idaho, the administration of rPEP

is reportable to public health. The DoD has requested that care provided outside of the Military Health System be documented as described in the "Provider Message" in <http://phc.amedd.army.mil/PHC%20Resource%20Library/Information%20for%20Providers.pdf> and a copy provided to the service member. Refusal of recommended rPEP should be documented in the medical record.

Veterans who are enrolled in the Veteran's Administration (VA) healthcare system can be evaluated and treated by the VA (see [www.publichealth.va.gov/exposures/rabies/index.asp](http://www.publichealth.va.gov/exposures/rabies/index.asp)). Veterans who are not enrolled can find out if they qualify for VA health care at [www.va.gov/healthbenefits/](http://www.va.gov/healthbenefits/). The DoD has indicated that persons who require rPEP will be reimbursed for care not covered by the VA or health insurance; however, because rPEP, particularly HRIG, administered in the private sector can be very expensive, we encourage veterans to obtain care from the VA when possible. For a list

of VA facilities in Idaho and their parent VA Medical Centers (VAMC), see [www2.va.gov/directory/guide/state.asp?STATE=ID](http://www2.va.gov/directory/guide/state.asp?STATE=ID). VA community-based outpatient clinics in southern Idaho do not stock rabies vaccine and will refer soldiers needing rPEP to their parent VAMCs. VA clinics in Lewiston and Grangeville can obtain vaccine within 24 hours, and the clinic in Coeur d'Alene can order vaccine to complete the series after a veteran has been referred to the parent VAMC and received HRIG and the first dose. Veterans who need travel assistance can be advised to start the line of duty process to ensure that their travel expenses are covered.

See <http://phc.amedd.army.mil/topics/discond/aid/Pages/Rabies.aspx> for information about rabies provided by the U. S. Army Public Health Command. Providers having questions about the Rabies Prevention Outreach Program may call 800-222-9698 or e-mail [phcrabiesinfo@amedd.army.mil](mailto:phcrabiesinfo@amedd.army.mil) for more information.

## TWO IN TUB CONTINUED FROM PAGE TWO

- 2c. *Correct.* The second event is reportable because the *P. aeruginosa* infection was associated with a known exposure to water in a hot tub. *P. aeruginosa* infections that are suspected to be foodborne, waterborne, or part of a cluster are reportable in Idaho (IDAPA 16.02.10 Sections 260 and 270).
- 2d. *Incorrect.* Culture and identification of *P. aeruginosa* will not be reported through routine laboratory reporting. If testing is done at the Idaho Bureau of Laboratories (IBL) in conjunction with a cluster or outbreak investigation, IBL will report results to public health districts or the Office of Epidemiology, Food Protection, and Immunization, but the ordering provider is still required to report.
- 2e. *Incorrect.* Although affected persons are encouraged to contact the public health district in which they reside or in which the rental unit is located to inform public health of these events, official reporting is

only required for physicians, other health care providers, and other persons as specified in IDAPA 16.02.10 Section 020. Public health agencies in Idaho do not regulate hotel or private pools and spas; however, public health districts do have the authority to inspect these venues as part of the public health investigation that is required after suspected waterborne illness or clusters are reported.

Reporting of cases or suspected cases of waterborne illness to public health is crucial for initiating a public health investigation to identify the etiology, determine the source, and initiate control measures to prevent additional cases of illness. In Idaho, reporting of waterborne illness and outbreaks has led to interventions that have limited further exposures and subsequent illness, such as:

- improvements in spring water intakes and treatment,
- identification of cracks in irrigation canals,
- correcting of improper installation of backflow preventers in residential

- pressurized irrigation water systems,
- labeling of non-potable water sources,
- improved disinfection methods for water at splash parks,
- improved maintenance practices for hot tubs and spas,
- bather load control and provision of hand hygiene equipment and supplies at community pools,
- improved practices for managing water, play tables and wading pools at daycares,
- education of outfitters on prevention of foodborne and waterborne illness, and
- intensified *Legionella* source investigation in other states.

For more information on illnesses associated with recreational and drinking water, see CDC's Healthy Water website at [www.cdc.gov/healthywater/](http://www.cdc.gov/healthywater/). Up to 22 credit hours of CME or MOC on recognizing waterborne disease and the health effects of water pollution is sponsored by the American College of Preventive Medicine and available at [www.waterhealthconnection.org/](http://www.waterhealthconnection.org/).



Division of Public Health  
P.O. Box 83720  
Boise, ID 83720-0036

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Boise, ID

**ROUTINE 24-Hour  
Disease Reporting Line  
1.800.632.5927**

**EMERGENCY 24-Hour  
Reporting Line  
1.800.632.8000**

An electronic version of the Rules and Regulations Governing Idaho Reportable Diseases may be found at <http://adm.idaho.gov/adminrules/rules/idapa16/0210.pdf>.

Current and past issues are archived online at [www.idb.dhw.idaho.gov](http://www.idb.dhw.idaho.gov).

## Rabies Postexposure Prophylaxis Online Course Available

Idaho residents are exposed to rabid or potentially rabid animals every year. A free online course on the basics of rabies post-exposure prophylaxis (rPEP), including recent changes to the rPEP schedule, is now available. This course, based on the most current rPEP guidelines from the Advisory Council on Immunization Practices (ACIP), was developed collaboratively by the Maryland Department of Health and Mental Hygiene and the Centers for Disease Control and Prevention. It is designed to educate healthcare and public health professionals about rabies, the approach used in assessing potential rabies virus exposures, and administration of rPEP based on ACIP recommendations. Continuing Education credits are available to any physician, nurse, pharmacist, or veterinarian who takes the training. “Rabies Post-exposure Prophylaxis (PEP) Basics: Case Illustrations of the 2010 Advisory Committee on Immunization Practices (ACIP) Guidelines” can be accessed at <http://ideha.dhmh.maryland.gov/training/SitePages/rabies.aspx>. To learn about the epidemiology of rabies in Idaho, visit [www.healthandwelfare.idaho.gov/Health/DiseasesConditions/RabiesInformation/tabid/176/Default.aspx](http://www.healthandwelfare.idaho.gov/Health/DiseasesConditions/RabiesInformation/tabid/176/Default.aspx)

## Data Snapshot: *Vibrio parahaemolyticus*

During July–September 2011, two cases of *Vibrio parahaemolyticus* were reported in Idaho, compared with two cases reported during 2005 through June 2011. Both persons ill in 2011 consumed raw oysters imported into Idaho from domestic coastal sources. *Vibrio* are found naturally in coastal waters and multiply rapidly in warm conditions; consequently, seafood is more likely to be contaminated in the summer. Healthcare providers should consider vibriosis in the differential diagnosis of patients presenting with diarrheal illness 0.5 to 4 days after consumption of raw seafood, particularly oysters. Oral rehydration is usually sufficient treatment; however, antimicrobial therapy can benefit patients who have severe diarrhea, wound infection, or septicemia.

Figure. Number of reported cases of *Vibrio parahaemolyticus*—Idaho, 2005–October 2011\*

