

# Drug Resistant *Streptococcus Pneumoniae* (DRSP)

### What is DRSP?

DRSP stands for drug resistant *Streptococcus pneumoniae*, a bacterium that has developed resistance to at least one drug that is commonly used for pneumococcal infections. The antibiotic that DRSP is most commonly resistant to is penicillin, but DRSP may also be resistant to other antibiotics as well, including erythromycin, trimethoprim/ sulfamethoxazole, vancomycin, tetracycline, chloramphenicol, and ofloxacin.

### How are people affected by DRSP?

DRSP can affect people in two different ways-colonization or infection. When a person carries DRSP as part of his or her normally present bacteria (also known as normal flora), the person is said to be colonized. If a person has an infection that is caused by DRSP, the person is considered to be infected.

### How common are infections due to *S. pneumoniae*?

*S. pneumoniae* infections are among the leading causes worldwide of illness and death for young children, people with underlying debilitating medical conditions, and the elderly. Each year in the United States, pneumococcal disease is estimated to account for 3,000 cases of meningitis (infection of the lining of the brain and spinal cord), 50,000 cases of bacteremia (infection of the blood), and 7,000,000 cases of otitis media (infection of the middle ear).

#### How does DRSP spread from person-toperson?

The most common ways DRSP is spread are through large respiratory droplets (i.e., coughing or sneezing)

or direct contact from person-to-person. People who carry *S. pneumoniae* as part of their normal flora may spread the infection to others without ever feeling ill.

#### How can you stop DRSP spread from personto-person?

The same methods that would prevent the spread of pneumococcal infections are effective in preventing the spread of DRSP. These include covering the mouth and nose while sneezing or coughing, regular handwashing and the detection and treatment of persons who carry *S. pneumoniae* bacteria as part of their normal flora.

There is a vaccine available that protects against the 23 most common serotypes of *S. pneumoniae*. The Advisory Committee on Immunization Practices (ACIP) recommends that the vaccine be administered to people two years of age or older who have certain underlying medical conditions associated with increased risk for pneumococcal disease and its complications, and to all people greater than or equal to 65 years of age.

## Is DRSP more of a concern than other infections?

Yes and no. DRSP infections are no more virulent than other pneumococcal infections. However, pneumococcal infections can be extremely serious and all infections are of concern to health care workers and patients. DRSP is of particular importance because infections caused by DRSP may be very difficult to treat with the antibiotics that are currently available.

#### How can you prevent the spread of DRSP?

The number of pneumococcal infections would be likely to decrease if more people were vaccinated against the disease. Talk with your doctor to find out if you could benefit from vaccination against pneumococcal disease.

The problem of drug resistance would be likely to decrease if antibiotics were used more carefully. If you are prescribed an antibiotic for a pneumococcal infection (or any other infection), be sure and take the entire prescription as directed. (If the medicine is not agreeing with you, contact your health care provider and he or she may be able to prescribe another antibiotic). NEVER give an antibiotic to anyone for whom it was not prescribed and never save 'leftover' antibiotic for future use.

#### Where can I get more information?

Contact your doctor or the Southern Nevada Health District, Office of Epidemiology at (702) 759-1300.

This fact sheet was based on the Centers for Disease Control and Prevention's Defining the Public Health Impact of Drug-Resistant Streptococcus pneumoniae: Report of a Working Group. MMWR 1996;45 (No. RR-1).



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