



Bulletin No. 17

August 22, 1990

Pneumococcal Vaccine

New Opportunities for Disease Prevention

WHAT IS PNEUMOCOCCAL DISEASE? *Streptococcus pneumoniae* is a bacterium that causes much illness and death in the United States each year. This bacterium, also called the Pneumococcus, can cause serious infections of the lungs (pneumonia), the bloodstream (bacteremia), and the covering of the brain (meningitis). Anyone can get pneumococcal disease; however, persons over 65 years of age, the very young, and persons of any age who have special types of health problems have the greatest risk.

People are more likely to die from pneumococcal disease if they have problems such as alcoholism, heart or lung disease, kidney failure, diabetes, or certain types of cancer. Older persons as a group are more likely to die from pneumococcal disease. The high risk of death occurs in spite of treatment with drugs like penicillin. Because of the risk of serious complications from pneumococcal infection, vaccination is recommended for older persons and for children and adults with special health problems.

PNEUMOCOCCAL POLYSACCHARIDE VACCINE: The pneumococcal polysaccharide vaccine contains material from the 23 types of pneumococcal bacteria that cause 88% of pneumococcal bacteremias. Most healthy adults who receive the vaccine develop protection against most or all of these types of pneumococcal bacteria 2-3 weeks after vaccination.

Studies done in Alaska by the Arctic Investigations Program Center for Infectious Disease, CDC have documented high risk of pneumococcal disease in Alaska Natives. Although studies have not documented an excessive risk of pneumococcal disease in other Alaskans, the Alaska Division of Public Health recommends similar use of pneumococcal vaccine for all Alaskans.

REVACCINATION: Revaccination should be considered for certain groups:

1. Persons at highest risk of fatal pneumococcal infection, such as those with abnormal function or removal of the spleen who received the original pneumococcal vaccine (between 1977 and 1983), or who received the current vaccine (available from 1983 to the present) 6 or more years ago.
2. Other persons shown to lose protection rapidly, such as persons with nephrotic syndrome, kidney failure, or transplants, who received the current vaccine (available from 1983 to the present) 6 or more years ago.
3. Children aged 10 years or younger with nephrotic syndrome, abnormal function or removal of the spleen, and sickle cell anemia who received the vaccine 3 to 5 years ago.

POSSIBLE SIDE EFFECTS FROM THE VACCINE:

About half of those who are given pneumococcal vaccine have mild side effects, such as redness and pain at the injection site. Less than 1 percent of those given pneumococcal vaccine may develop fever, muscle aches, and severe local reactions. Serious side effects, such as severe allergic reactions, have rarely been reported. Revaccination after periods longer than 13 months from the first vaccination has not been shown to increase the occurrence of side effects. As with any drug or vaccine, there is a rare possibility that allergic or more serious reactions or even death could occur.

WHO SHOULD RECEIVE PNEUMOCOCCAL POLYSACCHARIDE VACCINE?

Adults

1. All adults aged 55 years and older and adults of all ages with previous pneumococcal infections or with long-term illnesses that are associated with a high risk of getting pneumococcal disease, including those with heart or lung diseases, diabetes, alcoholism, cirrhosis, or leaks of cerebrospinal fluid (CSF).
2. Adults with diseases that lower the body's resistance to infections or who are taking drugs that lower the body's resistance to infections, including those with abnormal function or removal of the spleen, Hodgkin's disease, lymphoma, multiple myeloma, kidney failure, nephrotic syndrome, or conditions such as organ transplantation.
3. Adults with and without symptoms who are infected with the AIDS virus (HIV infection).

Children

1. Children 2 years of age and older with previous pneumococcal infections or with long-term illnesses that are associated with a high risk of getting serious pneumococcal infections. This includes children with abnormal function or removal of the spleen, as well as those who have sickle cell disease, nephrotic syndrome, or CSF leaks, or who have diseases that lower the body's resistance to infections or are taking drugs that lower the body's resistance to infections.
2. Children 2 years of age and older infected with the AIDS virus, both with and without symptoms.

If there is a doubt as to whether or not a person for whom vaccine is indicated has previously received pneumococcal vaccine, administration of vaccine is recommended.

(Note-Frequent diseases of the upper respiratory system, including infections of the ear or sinuses, in children who are otherwise healthy, are not reasons to use this vaccine.)

PREGNANCY: The safety of pneumococcal vaccine for pregnant women has not been studied. It should not be given to healthy pregnant women.

REACTIONS: If the person who received the vaccine gets sick and visits a doctor, hospital, or clinic during the 4 weeks after receiving the vaccine, please report it to:

Immunization Program
Section of Epidemiology
3601 "C" Street, Suite 576
P.O. Box 240249
Anchorage, AK 99524-0249

Pneumococcal vaccine should be offered to all those receiving influenza vaccine, which can be given simultaneously at a different site. In contrast to pneumococcal vaccine, influenza vaccine is given annually.

(Information taken from materials published by the national Centers for Disease Control)