Vaccine Education Module: Vaccine-Preventable Diseases

Updated: February 2015
Diseases Caused by Bacteria

• Diphtheria

• *Haemophilus influenzae* type b

• Meningococcal disease

• Pertussis

• Pneumococcal disease

• Tetanus
This child has diphtheria and has developed a pseudo-membrane, a thick gray coating over the back of his throat.

Photo courtesy of CDC
This child has a swollen face due to Hib infection.
Courtesy Children’s Immunization Project, St. Paul, Minn.
This 4-month-old has gangrene due to infection with meningococcus.

Photo courtesy of CDC
Child with broken blood vessels in eyes and bruising on face due to severe coughing caused by pertussis.

Courtesy Thomas Schlenker, M.D., M.P.H., Chief Medical Officer,
Children's Hospital of Wisconsin
Pneumococcal Disease

- Caused by the bacterium *Streptococcus pneumoniae*

- Can infect different parts of the body leading to:
  - Pneumonia
  - Bacteremia (blood infection)
  - Meningitis
  - Ear infection
This child was experiencing painful muscle spasms due to infection with tetanus.

Courtesy CDC
Diseases Caused by Viruses

- Hepatitis A
- Hepatitis B
- Shingles
- Human papillomavirus (HPV)
- Influenza
- Measles
- Mumps
- Rotavirus
- Chickenpox
- Polio
This man developed jaundice as a result of hepatitis A infection.

Courtesy CDC
This woman has a skin rash from shingles.

Courtesy CDC
Human Papillomavirus (HPV)

- HPV is the most common sexually transmitted disease

- Most people who are infected do not have any symptoms

- Pap tests are performed on females to evaluate cells from the cervix under a microscope
  - Cells are examined for abnormal changes that if left untreated may develop into cervical cancer.
Influenza

This photo shows how influenza germs spread through the air when someone coughs.

Courtesy CDC
Measles

Head and shoulders of a boy with measles.
Courtesy CDC
Mumps

- This child is very swollen under the jaw and in the cheeks due to mumps.

Courtesy CDC
This child was born with cataracts caused by a rubella infection his mother transmitted to him before birth.

Courtesy CDC
Rotavirus

- Causes severe vomiting and diarrhea that can lead to dehydration.
- Dehydration can lead to death particularly in countries where medical care is not readily accessible.
- Before there was a vaccine, virtually all children had this infection by the age of 5.
Patient with chickenpox infection

Courtesy CDC
One of the chickenpox lesions became infected leading to complications.

Courtesy CDC
This young man suffers from upper extremity paralysis due to infection with poliovirus.

Courtesy CDC