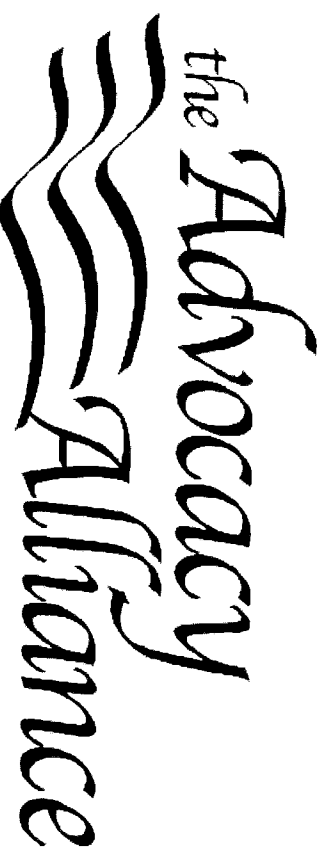


COMMUNICABLE DISEASES AND PREVENTATIVE IMMUNIZATIONS



Health Care Quality Units

Disclaimer

- The information presented to you today is intended to increase your awareness.
- The information is not intended to replace medical advice.
- If you are in need of medical advice, please contact your physician.

Objectives

- Participants will be able to identify:
 - Communicable diseases by definition, cause, symptoms and treatment
 - The role of vaccines in the prevention of communicable diseases
 - The recommended adult immunization schedule for communicable diseases

Communicable Diseases and Immunizations

- Communicable diseases are illnesses caused by microorganisms transmitted from an infected person or animal to another person or animal
- Communicable diseases include: Tuberculosis, Tetanus, Pertussis, Hepatitis, Influenza, Pneumococcal disease and Meningitis
- Immunization is the protection against infectious communicable disease

■ List of vaccine-preventable diseases/illnesses

Tuberculosis

- Tuberculosis (TB) is an active or latent non-active disease caused by the organism *Mycobacterium Tuberculosis*
- Spreads through airborne droplets
- Usually affects the lungs and may affect other parts of the body, including the brain, the kidneys or the spine

Tuberculosis (TB)

- Symptoms of TB
 - Cough lasting three or more weeks with bloody sputum
 - Weight loss
 - Fatigue
 - Night sweats
 - Chills
 - Loss of appetite
 - Pain with breathing or coughing

Diagnosis and Treatment of TB

- Diagnosis of TB is made by skin testing, blood tests, chest X-ray and sputum analysis

Tetanus

- Tetanus is a preventable, non-contagious disease affecting the nerves and resulting in a locked jaw, muscle spasms, stiffness and jaw pain
- Caused by the organism *Clostridium Tetani* bacteria found in soil, dust, or manure
- Enters the body through breaks in the skin
- Incubation period or appearance of the disease may take 3 to 21 days

Tetanus

- Symptoms of tetanus include
 - Headache
 - Irritability
 - Generalized rigidity and convulsive spasms of skeletal muscles
 - Seizures may occur and the autonomic (automatic) nervous system may be affected
- Treatments of tetanus include medication (e.g., antitoxin, antibiotics and a vaccine)
- Having a tetanus infection does not provide immunity

Pertussis

- Pertussis, or Whooping Cough, is a highly contagious disease caused by the organism *Bordetella Pertussis* or *Bordetella Parapertussis* bacteria
- Spread from person to person through respiratory secretions
- Initial symptoms of pertussis can be seen one week after exposure to the bacteria, with severe episodes of coughing for 10 to 12 days or up to 6 weeks
- Symptoms of pertussis include: sneezing, nasal congestion, tearing from the eyes, loss of appetite and fatigue

Pertussis

- Symptoms can progress to severe episodes of coughing followed by a high pitched “whooping” sound when inhaling, vomiting may result after severe whooping episodes
- Initial diagnosis is usually based on the symptoms, but diagnosis can be difficult
- Treatment varies with age and severity of symptoms
- Complications can include bruised or broken ribs, chest wall muscle injuries, hernia, pneumonia, dehydration and brain damage

Hepatitis

- Hepatitis is an acute or chronic inflammation of the liver that can be caused by toxins or poisons, certain drugs, some diseases, heavy use of alcohol, bacterial and viral infections
- The most common cause of hepatitis is infection by a virus
- Most common types hepatitis in the United States are Hepatitis A, Hepatitis B and Hepatitis C viruses
- Symptoms include fatigue, tenderness in the upper right abdomen, sore muscles and joints, loss of appetite, altered sense of taste and smell, low-grade fever, nausea, vomiting, diarrhea and jaundice

Hepatitis A

- Hepatitis A is an acute liver disease caused by the Hepatitis A virus (HAV), lasting from a few weeks to several months, but does not lead to chronic infection
- Transmission occurs through close person-to-person contact or ingestion of contaminated food or drinks
- The Hepatitis A vaccine is safe for anyone over 2 years of age and can provide protection for up to 20 years
- Prevention strategies include good hand washing, washing fruits and vegetables before eating and avoiding raw or undercooked meat and fish

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Hepatitis B

- Hepatitis B (HBV) is a liver infection ranging from a mild illness lasting a few weeks (acute) to a serious long term (chronic) illness leading to liver disease or even liver cancer
- Transmission occurs through contact with infected blood or body fluids of people with Hepatitis B
- Vaccination is recommended for all infants, older children, adolescents not previously vaccinated and high risk adults

Hepatitis C

- Hepatitis C (HCV) is an acute and chronic liver disease resulting from contact with contaminated blood products
- Can lead to cirrhosis or hardening of the liver or liver cancer
- Silently attacks the liver and the virus can stay in the body for a lifetime
- Currently there is no vaccine

Influenza

- Influenza, or the “flu”, is a contagious respiratory illness caused by influenza viruses
- Influenza is spread from person to person through respiratory droplets from coughing and sneezing in crowded conditions and transferring droplets on surfaces
- The incubation period influenza is 5-7 days after becoming ill

Influenza

- Symptoms include fever, headache, fatigue, dry cough, sore throat, muscle aches, nausea, vomiting and diarrhea
- Treatment includes bed rest, plenty of fluids and over the counter pain relievers (e.g., Tylenol, Motrin)
- Prevention is best maintained through hand washing and the flu “shot” vaccine annually in October or November

Pneumococcal Disease

- Pneumococcal disease is caused by the bacterium *Streptococcus pneumoniae*, or pneumococcus
- Most common types of infections caused by this bacteria include:
 - Middle ear infections
 - Pneumonia
 - Blood stream infections (bacteremia)
 - Sinus infections
 - Meningitis
- Symptoms vary depending on the illness caused by the bacteria
- Transmission is from person to person by droplets in the air

Pneumococcal Disease

- Pneumococcal disease kills more people in the United States each year than all other vaccine-preventable diseases combined
- Immunization is key to prevention of pneumococcal disease

Meningitis

- Meningitis is an infection of the spinal cord and the fluid that surrounds the brain
- Can be viral or bacterial
- Spread through coughing, sneezing, kissing or sharing eating utensils, a toothbrush or a cigarette
- Risk factors include age, living in a community setting and a compromised immune system

Meningitis

- Symptoms include:
 - High fever
 - Headache
 - Stiff neck
 - Nausea
 - Vomiting
 - Sleepiness
 - Confusion
 - Sensitivity to light

Vaccinations and the Prevention of Disease

- Vaccines are responsible for the control of many infectious diseases that were once common in this country
- Childhood immunizations in the United States protect against 11 diseases
- No vaccine is 100% safe or 100% effective
 - There may be disease in people who have been vaccinated but in many cases, vaccination reduces the risk of disease complications

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