

PEDS VACCINES

HEPATITIS B

-CORRECT

- ✓ Newborn, mother was hepB positive, what to give: IVIG immediately + HepB vaccine immediately with total 3 doses in 6 months)
- ✓ The vaccine can be safely administered to the newborn.
- ✓ Hepatitis b virus is highly infectious and is stable in the environment.
- ✓ Hepatitis b infection in infancy is usually subclinical.
- ✓ The chronic carrier state is associated with hepatocellular carcinoma.
- ✓ A vaccine that can be given to a newborn:
- ✓ Hep B (recall it is given to newborns of HBsAg positive mothers along with HbIg)

-WRONG

- The vaccine is composed of inactivated core antigen only.
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HEPATITIS A

CORRECT

- ✓ Which of the following vaccines is not given at 6 months
- ✓ It is rarely acquired by blood transfusion.
- ✓ Patients are most contagious in the pre-icteric phase.
- ✓ Hepatitis A infection is more likely to be severe in adults.
- ✓ Immune globulin is effective in preventing infection in the exposed household contacts.
- ✓ Hepatitis A vaccine is composed of killed virus.
- ✓ Elevated liver enzymes may occur in the absence of hyperbilirubinemia.
- ✓ Children are frequently the source of infection to their adult contacts.
- ✓ The disease is acquired from humans only.
- ✓ Recommended to give vaccine after the age of 12 months.
- ✓ Usually asymptomatic in those less than 3 months.
- ✓ Vaccine not in Jordanian system; A.
- ✓ Which of the following is not contraindicated in severe T-cell immunodeficiency?
Hepatitis A vaccine (killed virus vaccine).

-WRONG

- You can get it from cat feces.
- Is appropriate for all ages.
- Hepatitis A vaccine is contraindicated in children with chronic hepatitis.
- Hepatitis A vaccine is contraindicated after the age of twelve years.
- BHCG
- A tuberculin skin test is placed on a 15-month-old child. Of the following, the factor that is most likely to affect the test result is: (Choose one correct) -History of receiving bacillus Calmette-Guerin (BCG) vaccine at birth-

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MMR

- Not contraindication for MMR vaccine:
- Previous febrile seizure
- Not an adverse effect of MMR Encephalopathy
- Not to be given < 1 year? MMR

-CORRECT

- ✓ Which of the following vaccines is a live virus? MMR
- ✓ Vitamin A is indicated in all patients in the acute phase.
- ✓ Only primary maternal infection leads to fetal infection.
- ✓ The measles prodrome is an essential part of the infection.
- ✓ Measles is contagious by the respiratory route.
- ✓ Measles vaccine can be administered to patients on inhaled steroids.
- ✓ Measles infection is most serious in malnourished and very young children.
- ✓ It is transmitted by droplets.
- ✓ Measles vaccine should be administered to all susceptible individuals regardless of age.
- ✓ Encephalitis may occur in up to one in one thousand infants.
- ✓ Measles vaccine is contraindicated in pregnant women.
- ✓ Measles vaccine is contraindicated in patients undergoing chemotherapy.
- ✓ Aseptic meningitis is commonly seen.

- ✓ Orchitis is less common in children than adolescents.
- ✓ Antiviral therapy is of no value in mumps meningitis.
- ✓ Immunity following disease is lifelong.
- ✓ The disease is highly contagious.
- ✓ Vitamin A is effective in decreasing the complications of measles.
- ✓ The most common complication is aseptic meningitis.
- ✓ There is only one serotype.
- ✓ Rubella vaccine can be given to adults.
- ✓ Administration of a second dose of rubella vaccine is advised.
- ✓ Rubella fetal infection is most common if the mother is infected during the first trimester of pregnancy.
- ✓ Most common complication is aseptic meningitis.
- ✓ Rubella it is contagious by the droplet route.
- ✓ Rubella: the maximal risk to the fetus is in the first two months of pregnancy.
- ✓ Rubella vaccine is contraindicated in patients on high dose steroids.
- ✓ Rubella The rash typically starts on the face.

-WRONG

- Measles vaccine is contraindicated after the age of 25 years.
- The mumps vaccine is contraindicated in post pubertal males.
- Mumps vaccine is contraindicated in patients with thalassemia major.
- Measles vaccine is contraindicated in patients on inhaled steroids.
- Mumps vaccine should not be given to adults.
- Infection is more severe in younger children than older children.
- Orchitis is most common in pre-pubertal boys.
- Rubella is almost always clinically apparent.
- Patients are contagious by contact only.
- No long term complications.
- Patients with leukemia should receive a booster dose of Rubella vaccine.
- Rubella vaccine is effective following recent treatment with immune globulins.

- Rubella vaccine should not be administered simultaneously with other vaccines.
- The initial dose of rubella vaccine should be given before 12 months of age.
- The congenital rubella syndrome is characterized by macrocephaly with intracranial calcifications.

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ROTAVIRUS

-CORRECT

- ✓ Rotavirus vaccine is a live attenuated vaccine.
- ✓ Rotavirus vaccine is effective in preventing severe diarrhea.
- ✓ It prevents severe dehydration but may not be totally protective from rotavirus infection.
- ✓ A six-month-old infant is seen with fever and diarrhea. He was well till two days earlier when he developed high fever and started having severe vomiting followed by severe diarrhea. On examination he appeared listless and had sunken eyes with poor skin turgor. His capillary refill time was 3 seconds. You suspect rotavirus diarrhea. All of the following are correct about this condition:
 - b. The first dose of rotavirus vaccine can be given as early as six weeks of age.
 - c. The rotavirus vaccine is effective in decreasing the occurrence of severe diarrhea.
 - d. Dehydration is the most serious complication of rotavirus.
- ✓ According to the national vaccination schedule in Jordan, Rota vaccine is given at: 2,3, and 4 months
- ✓ Rotavirus vaccine is a live attenuated vaccine.
- ✓ Rotavirus vaccine can be administered to children in day care.
- ✓ A one-year-old child has diarrhea. He also had a fever from vomiting one day earlier. The diarrhea is watery, and he attends day care. You suspect rotavirus. all of the following are correct:
 - ✓ Dehydration is the major complication of rotavirus infection.
 - ✓ Rotavirus vaccine cannot be administered after the age of 8 months.
 - ✓ Rotavirus causes osmotic diarrhea.
 - ✓ There are few or no polymorphonuclear cells in the stool of infected children.
 - ✓ All of the following are correct about rotavirus infection:

- ✓ The virus is very contagious.
- ✓ Immunity is not lifelong.
- ✓ Most people are infected before the age of three years.
- ✓ Rotavirus vaccines are contraindicated in children with severe combined immune deficiency.
- ✓ Oral rotavirus vaccine is contraindicated after the age of 8 months.
- ✓ It is contraindicated in pregnancy.
- ✓ It is contraindicated for children after the age of eight months.
- ✓ Rotavirus vaccine is contraindicated in children older than eight months of age.

-WRONG

- Rotavirus is not transmitted from one person to another.
- It is contraindicated in siblings of patients with leukemia.
- Rotavirus vaccine can be administered to children with a history of intussusception.
- A six-month-old infant is seen with fever and diarrhea. He was well till two days earlier when he developed high fever and started having severe vomiting followed by severe diarrhea. On examination he appeared listless and had sunken eyes with poor skin turgor. His capillary refill time was 3 seconds. You suspect rotavirus diarrhea. All of the following are correct about this condition EXCEPT?
- Patients are rarely contagious to others.
- A one-year-old child has diarrhea. He also had a fever from vomiting one day earlier. The diarrhea is watery, and he attends day care. You suspect rotavirus. All of the following are correct except
- Rotavirus is not easily transmitted among children.
- All of the following are correct about rotavirus infection except: E. It is a rare cause of nosocomial diarrhea.
- Rotaviral vaccine is recommended to children between 8-12 months of age.
- Rotavirus is a common cause of hemolytic uremic syndrome in infants.
- Rotavirus causes diarrhea mainly in school age children.
- Infections with Rotavirus results in immunity against all serotypes

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HIB

- A 6-year-old child comes to Jordan and had no vaccines in his country, which of the following vaccines is not indicated? Hib vaccine (The vaccine is not needed after 5 years of age).
- HiB schedule? 2,3, and 4 months

-CORRECT

- ✓ It is the most common cause of epiglottitis.
- ✓ HIB meningitis is preventable by vaccination.
- ✓ Otitis media is most commonly associated with non-typable Hemophilus influenza.
- ✓ Hemophilus type b vaccine is not indicated after the age of 5 years.
- ✓ Anticapsular antibodies are protective.
- ✓ H flu b vaccine is not needed in children older than five years.
- ✓ Ceftriaxone is the drug of choice for h flu b meningitis.
- ✓ H flu b is very rare in children who are fully immunized to Hemophilus.
- ✓ IF HIB is confirmed, all contacts of this patient regardless of age should receive.
- ✓ Rifampicin prophylaxis if there are any unvaccinated siblings who are less than four years of age.
- ✓ HIB vaccine is not effective in children before the age of six weeks.
- ✓ HIB vaccine prevents the carriage of Hemophilus influenza B in the nasopharynx.
- ✓ Patient groups that should be targeted for annual influenza vaccination include all of the following:
 - ✓ Persons aged 65 year and older.
 - ✓ Persons with cardiovascular disease.
 - ✓ Otherwise healthy children with asthma.
 - ✓ Women who will be in the second or third trimester of pregnancy during influenza season.
- ✓ It is easily transmitted by droplets.
- ✓ HIB meningitis is easily treated by ceftriaxone.
- ✓ HIB meningitis has decreased in incidence in Jordan.
- ✓ Rifampin prophylaxis should be offered to contacts of patients if there are unvaccinated children less than four years of age in the household.

- ✓ It is a very important cause of meningitis in children less than four years of age if there is no vaccination.
- ✓ It is rarely carried in the nasopharynx of normal children.
- ✓ Rifampin prophylaxis is necessary for young contacts of a meningitis case.
- ✓ Hib vaccine is contraindicated before the age of six weeks.
- ✓ H flu vaccine is contraindicated before the age of six weeks

-WRONG

- Hib vaccine is composed of the outer membrane protein
- H. flu type b is a common cause of otitis media
- Beta-lactamase producing Hib can be treated with vancomycin
- Hib vaccine is contraindicated in adults.
- Hemophilus Influenza b is a very important cause of neonatal sepsis.
- Patient groups that should be targeted for annual influenza vaccination include all of the following: Healthy adults between 18-25 years

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POLYSACCHARIDE VACCINES

-CORRECT

- ✓ They do not induce long term immunity in infants
- ✓ They are best administered conjugated with a protein
- ✓ They can safely be administered to patients with hypogammaglobulinemia
- ✓ They are safe to adolescents and adults

-WRONG

- They are effective when administered in the newborn period.

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PNEUMOCOCCAL VACCINES

-CORRECT

- ✓ Only the conjugated vaccine is indicated in infants less than one year of age.
- ✓ Conjugated vaccines prevent the nasopharyngeal carriage of pneumococcus.
- ✓ Pneumococcal meningitis is the most common of acute bacterial meningitis in all.
- ✓ Age groups after the newborn period.

- ✓ The polysaccharide capsule determines the invasiveness of the bacterium.
- ✓ The current vaccines protect against the most common serotypes.
- ✓ Penicillin resistant pneumococcal meningitis should be treated with Vancomycin.
- ✓ Patients with pneumococcal meningitis should receive steroids in the first two days of therapy.
- ✓ Immunity is type specific.
- ✓ Penicillin resistance is increased with excessive use of antibiotics.
- ✓ Pneumococci are the most common cause of meningitis in patients with basal skull fracture.
- ✓ Patients with asplenia are at risk of overwhelming sepsis with pneumococci.
- ✓ A one-year-old infant is admitted with fever and tachypnea. She was unwell for two days prior to admission with fever and cough which worsened on the day of admission. On examination she was tachypneic with retractions. CXR revealed right middle lobe pneumonia. All of the following about this condition is correct:
- ✓ Hemophilus influenza b is an uncommon cause of pneumonia in children less than two years of age in Jordan.
- ✓ Vancomycin is the recommended treatment for both penicillin resistant pneumococci and MRSA.
- ✓ Pneumococcal vaccine protects against most serotypes leading to invasive disease.
- ✓ Empyema is an important complication of pneumococcal pneumonia.
- ✓ Pneumococcal vaccine is contraindicated before the age of six weeks.

-WRONG

- Pneumococcal vaccine is contraindicated in pregnancy
- The pure polysaccharide pneumococcal vaccine is effective in preventing pneumococcal infections in infants less than two years of age
- All of the following hospitalized patients require some form of isolation, except: pneumococcal bactremia.
- Purified capsular polysaccharides vaccine can be used for children under 2 years.
- Pneumococci are the most common cause of meningitis in the newborn.

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POLIO

- A mother brings her 18-month-old child for routine checkup and vaccination, she tells you that his older brother is currently being treated for leukemia, you are counseling her regarding vaccinating her 18-month-old child; you explain that he can receive all of the following vaccines EXCEPT:
- Pertussis Vaccine
 - Tetanus vaccine
 - Measles Mumps Rubella vaccine
 - Diphtheria vaccine
 - Oral polio vaccine “THE ANSWER
- Which of the following is contraindicated if a sibling of the child has ALL and is on chemotherapy? OPV vaccine

-CORRECT

- ✓ The neurological deficit is limited to the motor neurons.
- ✓ There is little cross immunity between the three serotypes.
- ✓ The virus infects humans only.
- ✓ Adults have a higher rate of paralysis than children.
- ✓ Patients are contagious by the fecal oral route.
- ✓ Most infections are subclinical.
- ✓ Oral polio vaccine is safe in the newborn.
- ✓ OPV is the recommended vaccine in outbreaks.
- ✓ The overwhelming majority of infections are asymptomatic.
- ✓ Immunity to polio is type specific.
- ✓ The chronic carrier state has been described in patients with hypogammaglobulinemia.
- ✓ Polio affects the motor neurons only.
- ✓ The disease is transmitted by the fecal oral route.
- ✓ Paralysis involves the major muscle groups.
- ✓ Most patients have asymptomatic infection.
- ✓ The virus infects the anterior horn cell only.

-WRONG

- Polio may be transmitted from cats to man.
- The paralysis is usually symmetrical
- Not given to patients taking inhaled corticosteroids
- Which is not true about OPV in comparison with IPV:
- Can cause polio in 1/1000 vaccinated children (incidence of paralytic polio post vaccination is much less)
- Oral polio vaccine is contraindicated after the age of six years
- IPV is contraindicated after the age of 18 years.

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DTP; DIPHTHERIA TETANUS PERTUSSIS

- What is the most common side effect of DTaP vaccine? Pain and induration at the site of injection
- CONTRAINDICATION:
Severe anaphylaxis within 48 hours from vaccine or its parts
- NOT CONTRA:
- Contraindication for DTaP vaccine: (2022)
Fever with 3 days
Intense crying for 3 hours
Hypotonia and shock-like
Seizure within 3 days

DIPHTHERIA

-CORRECT

- ✓ It is carried only by humans.
- ✓ Diphtheria vaccine can be given with other vaccines.
- ✓ Only toxigenic strains produce disease.
- ✓ Immunized individuals may carry the organism in the nasopharynx.
- ✓ Immunized individuals may carry the organism in their pharynx and may be contagious to others.

- ✓ Suspected cases should receive antitoxin as soon as possible without waiting for culture confirmation.
- ✓ Diphtheria vaccine prevents the disease in more than 90% of recipients.
- ✓ Diphtheria vaccine administered to adults contains a smaller amount of antigen.

-WRONG

- Diphtheria vaccine is made of polysaccharide.
- The diphtheria vaccine is a killed whole cell bacterial vaccine

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TETANUS

➤ A ten-year-old child is brought with a wound that he sustained while playing. When examined the wound was three centimeters wide with some scratches and dirt on the abraded skin. The child had received no vaccines after the age of one year. All of the following are correct about the management of this child except:

- A. He should receive tetanus immune globulin.
- B. He should receive tetanus vaccine.
- C. He should have the wound cleaned and take antibiotics.
- D. Immunity to tetanus vaccine is not lifelong.
- E. It is preferred that he receives tetanus vaccine combined with diphtheria toxoid if available.

-CORRECT

- ✓ Neonatal tetanus maybe prevented by maternal immunization.
- ✓ Patients with tetanus are not contagious to others.
- ✓ Tetanus vaccine content for infants and adults is the same.
- ✓ Tetanus vaccine is composed of the inactivated tetanus toxin only.
- ✓ No recognizable entry wound maybe found in a minority of cases.
- ✓ Short incubation period is associated with severe illness.
- ✓ Maternal immunization during pregnancy prevents neonatal tetanus.
- ✓ Tetanus is treated with antitoxin and penicillin.
- ✓ The disease is toxin mediated.
- ✓ Patients recovering from tetanus should receive the tetanus vaccine.
- ✓ Bacteremia does not occur.

- ✓ Patients who received more than three doses of tetanus vaccine do not require tetanus immune globulin following clean wound.

-WRONG

- Tetanus vaccine is contraindicated in immune compromised individuals.
- Patients should be placed on strict isolation in order to prevent infection to others
- Anti tetanus antibodies do not cross the placenta
- Wrong about tetanus: Whole cell bacterium vaccination

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PERTUSSIS

- Absolute contraindication to subsequent administrations of acellular pertussis vaccine is:

- d. An anaphylactic reaction to a previous dose of whole-cell pertussis vaccine
- c. Encephalopathy within 7 days of the previous dose

- NOT ABSOLUTE/NOT EVEN CONTRA:

- a. History of anaphylaxis to egg or egg proteins
- b. Collapse or shock-like state within 2 days of pertussis vaccination
- c. Persistent, inconsolable cry lasting 3 hours or longer within 2 days of pertussis vaccination
- e. Convulsions with or without fever within 3 days of pertussis vaccination
- b. Fever 40.5 or higher within 48 hours of the previous dose?
- d. Febrile seizures within 48 hours of the previous dose
- e. Hypotonic hyporesponsive episode with the previous dose

-CORRECT

- ✓ Pertussis vaccine is indicated for pregnant women in order to prevent pertussis in the newborn.
- ✓ Acellular pertussis vaccine is less effective than whole cell vaccine in long term protection.
- ✓ Vaccinating contacts of premature infants is indicated to protect them from pertussis.
- ✓ It is highly contagious.
- ✓ Azithromycin is the preferred drug in infants less than one month of age.

- ✓ Patients have lymphocytosis.
- ✓ Bacteremia rarely occurs.
- ✓ It is most severe in the first six months of life.
- ✓ Adults are a common source of infection in newborn infants.
- ✓ Pertussis is easily transmitted between individuals.
- ✓ Pertussis antitoxin has been proved to be of benefit in the treatment of infants with pertussis.
- ✓ Pertussis vaccine is contraindicated in patients with progressive CNS disease.

-WRONG

- Bacteremia frequently occurs.
- Most cases are asymptomatic.
- Pertussis vaccine is contraindicated in children on large dose steroids.

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CHICKENPOX

- All of the following vaccines are routinely administered in the Jordanian program of immunization, except: Varicella vaccine (chicken pox)
- Varicella Zoster vaccine is indicated in all of the following except
- A child with ITP who has been off IVIG for only one month (There must be a 9-month period after stopping IVIG to give live-attenuated vaccines)

-CORRECT

- ✓ It is more severe in adults than children.
- ✓ Chickenpox vaccine is effective in preventing infection if administered within four days of exposure.
- ✓ Chickenpox infection in pregnancy may be transmitted to the fetus
- ✓ Acyclovir is effective in the treatment of chickenpox encephalitis.
- ✓ The virus is characterized by latency.
- ✓ Reactivation in previously infected individuals leads to Herpes zoster.
- ✓ outcome of chickenpox is worst in the newborn and immunocompromised individuals.
- ✓ Chickenpox rash appears first on the trunk.

-WRONG

- The disease is milder in adults.
- Chickenpox vaccine is contraindicated after the age of seven years.
- Safe to give in pregnancy.

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SALMONELLA

-CORRECT

- ✓ S. enteritidis maybe transmitted from contaminated eggs and poultry.
- ✓ Infants develop bacteremia more frequently than older children.
- ✓ Antibiotic treatment of salmonella gastroenteritis is not necessary in older children and adults.
- ✓ Invasive salmonella infections including osteomyelitis is more common in patients with sickle cell disease.

-WRONG

- S. typhi may be acquired from contact with dogs.

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