



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: Paediatric

Topic: MMR



CASE SCENARIO



- A 2 years old male baby presented with a history of swelling of jaws associated with rashes on the skin .How will you diagnose this patient?



MMR



NAME OF THE VACCINE	MEASLES	MUMPS	RUBELLA
TYPE OF THE VACCINE	M-M-R II and PRIORIX	M-M-R II and PRIORIX	M-M-R II and PRIORIX
CONTENTS	live, attenuated	live, attenuated	live, attenuated
EFFICACY	93% effective against measles	78% effective against mumps	97% effective against rubella.
STORAGE	MMR vaccine (B) can be stored in the refrigerator or freezer.	MMR vaccine (B) can be stored in the refrigerator or freezer.	MMR vaccine (B) can be stored in the refrigerator or freezer.
DOSE	0.5ml	0.5ml	0.5ml
SITE	The anterolateral aspect of the thigh. The posterior triceps aspect of the upper arm is the preferred site for older children and adolescents.	The anterolateral aspect of the thigh. The posterior triceps aspect of the upper arm is the preferred site for older children and adolescents.	The anterolateral aspect of the thigh. The posterior triceps aspect of the upper arm is the preferred site for older children and adolescents.
ROUTE	subcutaneous or intramuscular route.	subcutaneous or intramuscular route.	subcutaneous or intramuscular route.



MEASLES



The infection occurs in stages over 2 to 3 weeks.

- **Infection and incubation.** For the first 10 to 14 days after infection, the measles virus spreads in the body. There are no signs or symptoms of measles during this time.
- **Nonspecific signs and symptoms.** Measles typically begins with a mild to moderate fever, often with a persistent cough, a runny nose, inflamed eyes (conjunctivitis) and a sore throat. This relatively mild illness may last 2 to 3 days.
- **Acute illness and rash.** The rash is made up of small red spots, some of which are slightly raised. Spots and bumps in tight clusters give the skin a splotchy red appearance. The face breaks out first.
- Over the next few days, the rash spreads down the arms, chest and back, then over the thighs, lower legs and feet. At the same time, the fever rises sharply, often as high as 104 to 105.8 F (40 to 41 C).
- **Recovery.** The measles rash may last about seven days. The rash gradually fades first from the face and last from the thighs and feet. As other symptoms of the illness go away, the cough and darkening or peeling of the skin where the rash was may stay for about 10 days.



Measles causes a red, blotchy rash that usually appears first on the face and behind the ears, then spreads downward to the chest and back and finally to the feet.



MUMPS



- Mumps is best known for the puffy cheeks and tender, swollen jaw that it causes. This is a result of swollen salivary glands under the ears on one or both sides, often referred to as parotitis. Other symptoms that might begin a few days before parotitis include: Fever.
- A common symptom of mumps is painful swelling on one or both sides of the face
- Mumps is a viral illness caused by a paramyxovirus, a member of the Rubulavirus family.
- Treatment is used to relieve symptoms and includes: getting plenty of bed rest and fluids. using painkillers, such as ibuprofen and paracetamol – aspirin should not be given to children under 16. applying a warm or cool compress to the swollen glands to help relieve pain.

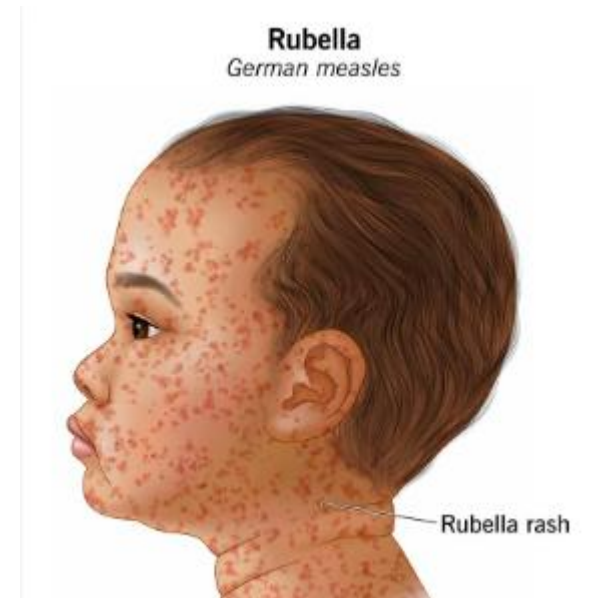




RUBELLA



- Rubella is a contagious disease caused by a virus.
- Rubella virus can be found in nose and throat secretions and urine from 1 week before to 2 weeks after rash onset, although infants with congenital rubella may excrete the virus for a year or more in pharyngeal secretions and urine.
- Pathogen. The rubella virus is a RNA virus and belongs to the genus Rubivirus and the family Togaviridae. It is of a single serotype divided into two clades and within these two clades there are at least seven genotypes
- **Congenital rubella syndrome (CRS)** is the most serious form of rubella. It happens when a pregnant person passes rubella to the fetus. This can cause skin, hearing, vision, heart and brain problems in newborns.





Diagnosis & Treatment



- **Diagnosis-** antibody screening is a single blood test that is used to help diagnose both measles and mumps . MMR stands for measles, mumps, and rubella. Rubella, also known as German measles, is caused by another type of virus.
- **Deficient MMR** (dMMR) results in an inability to correct DNA replication errors and therefore results in an increased risk of cancer.
- **MMR status** is frequently determined by immunohistochemistry (IHC) for mismatch repair proteins (MMRPs) on colorectal cancer (CRC) resection specimens

Treatment

- MMR vaccine to protect against measles, mumps, and rubella. Children should get two doses of MMR vaccine, starting with the first dose at 12 to 15 months of age, and the second dose at 4 through 6 years of age.

