



asymptomatic Primary infection

Kaposi sarcoma herpesvirus (HHV-8)

saliva

male homosexuals

AIDS patients

Diagnosis: Histopathology
PCR

cancer of the blood and lymph vessels



infants

Unknown reactivation

Roseola viruses (HHV-6 and HHV-7)

skin

rash

saliva

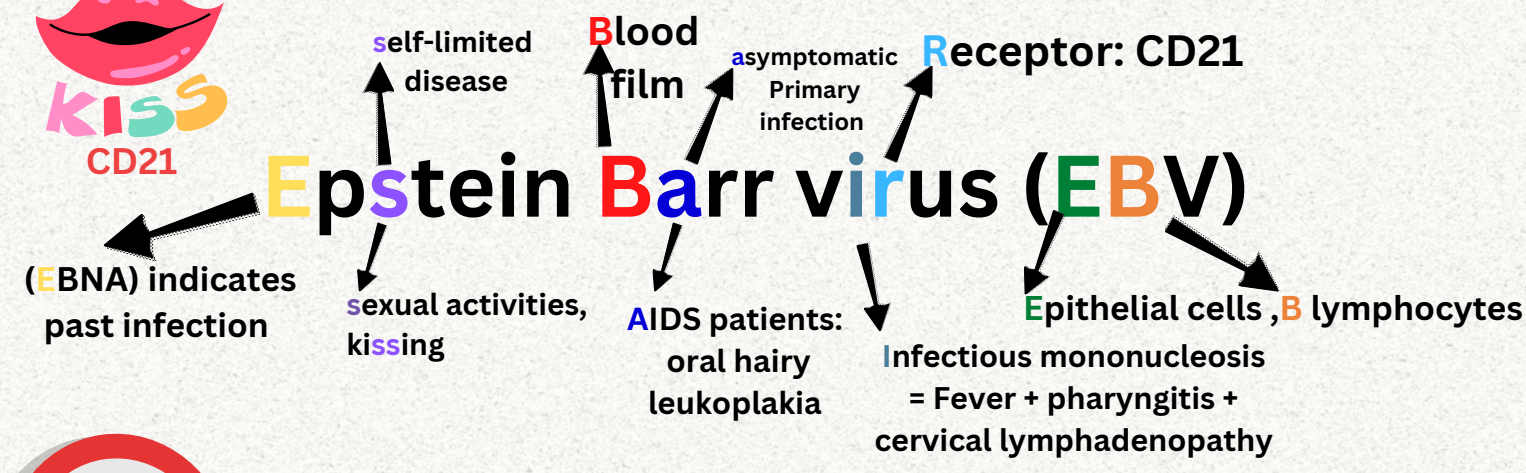
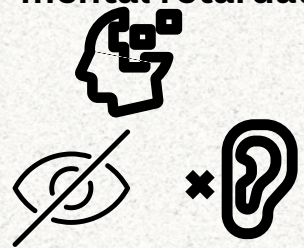
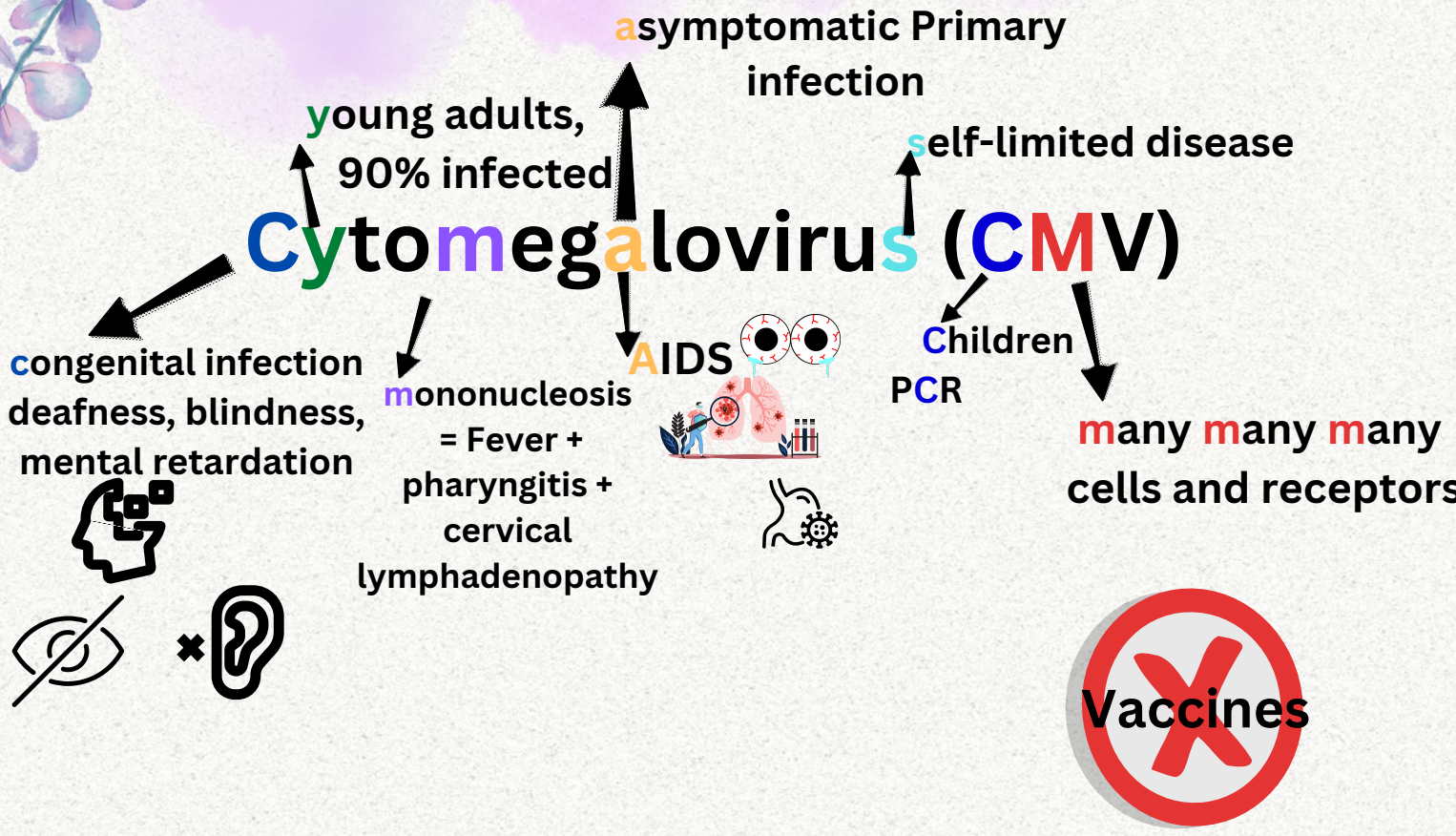
sixth disease

high fever



Mood





- Burkitt lymphoma
- Nasopharyngeal carcinoma
- Hodgkin and non-Hodgkin lymphomas
- Gastric carcinoma



Single-stranded DNA



Parvoviridae

fever and rash

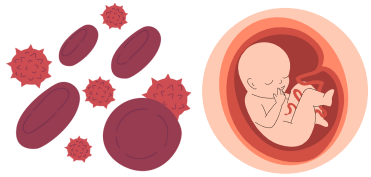
Parvovirus B19

bocaviruses

fifth disease or slapped cheek syndrome

anemia

arthritis



Replicate in the nucleus



Double-stranded DNA

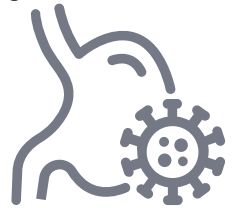
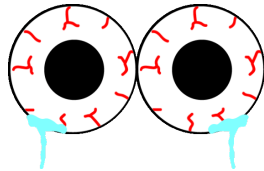
Adenoviridae

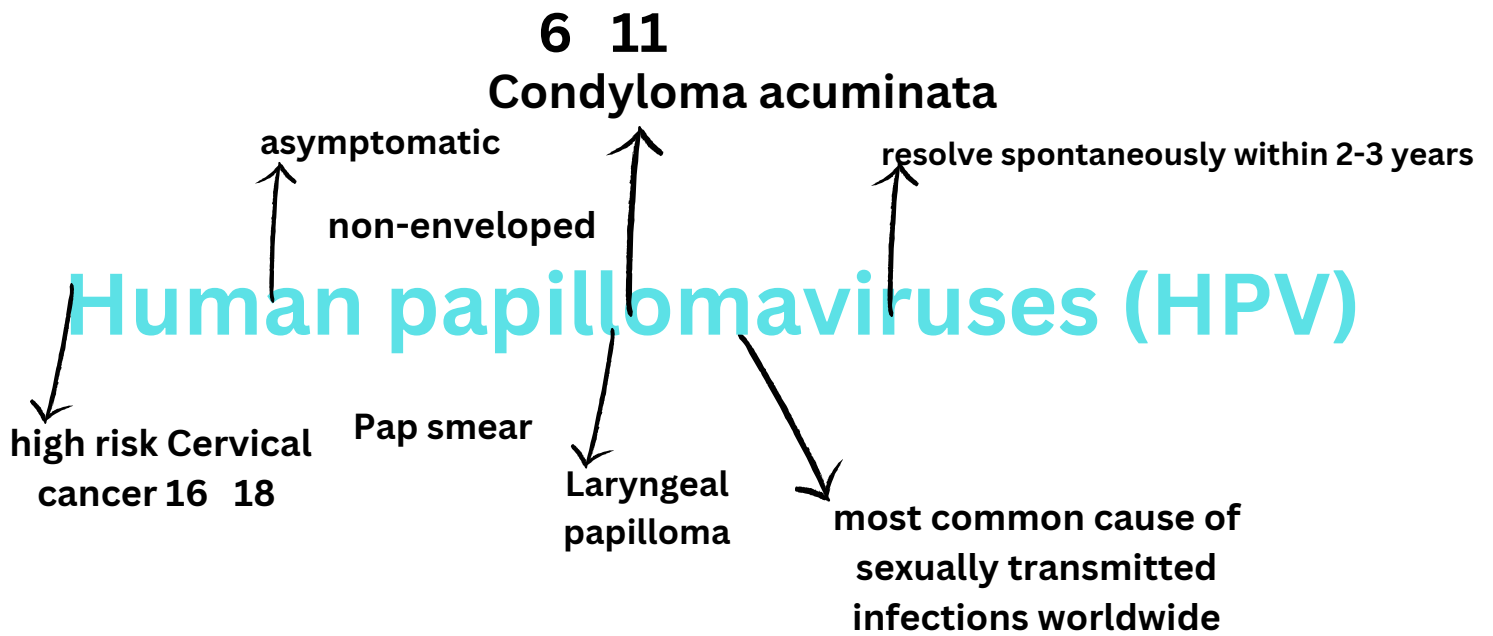
not seasonal

Antigen detection

eyes :Conjunctivitis

epithelial cells of the respiratory tract, eyes, gastrointestinal tract and urinary tract





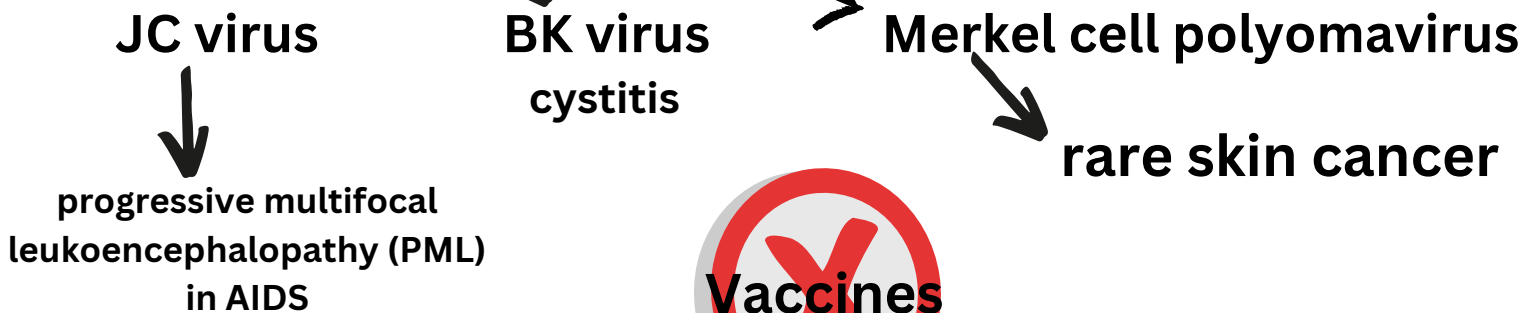
Vaccines

Cervarix (bivalent vaccine for HPV-16 and 18).

Gardasil (quadrivalent vaccine for HPV-6, HPV-11, HPV-16, and HPV-18).

Nonavalent vaccine (for the following types: 6, 11, 16, 18, 31, 33, 45, 52, 58).

Polyomaviridae



respiratory secretions, aerosols

Orthomyxoviridae (Influenza viruses)

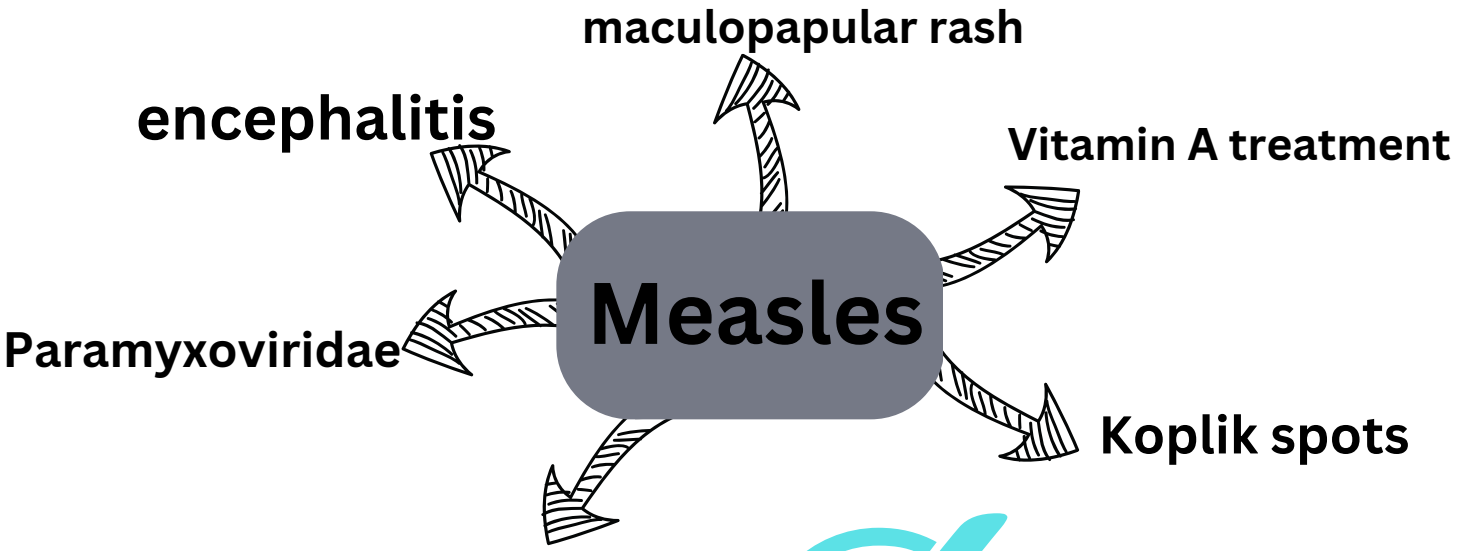
H1N1
H5N1
H3N2

Myalgia
arthralgia

Vaccines

2A, 2B
2A, 1B

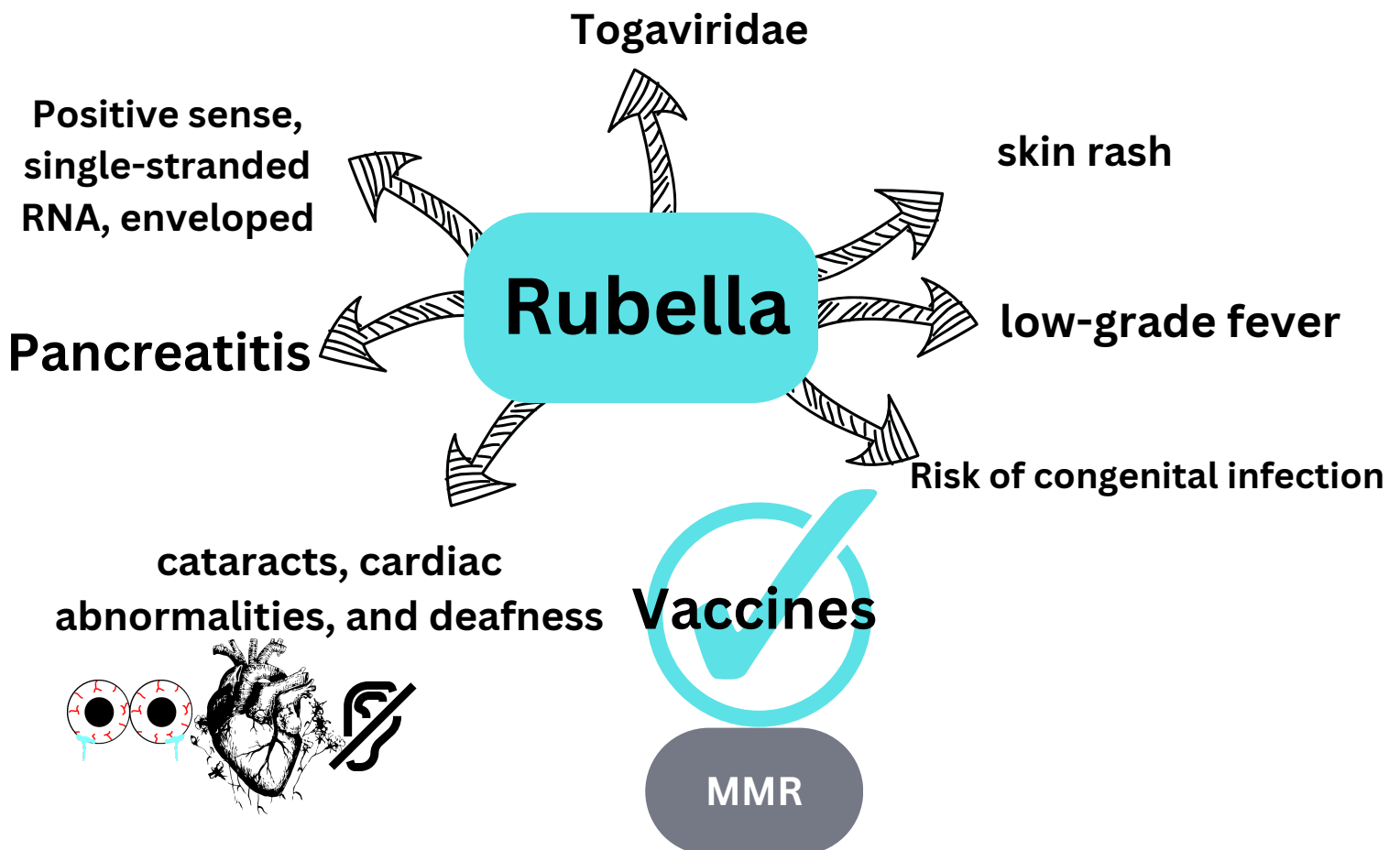
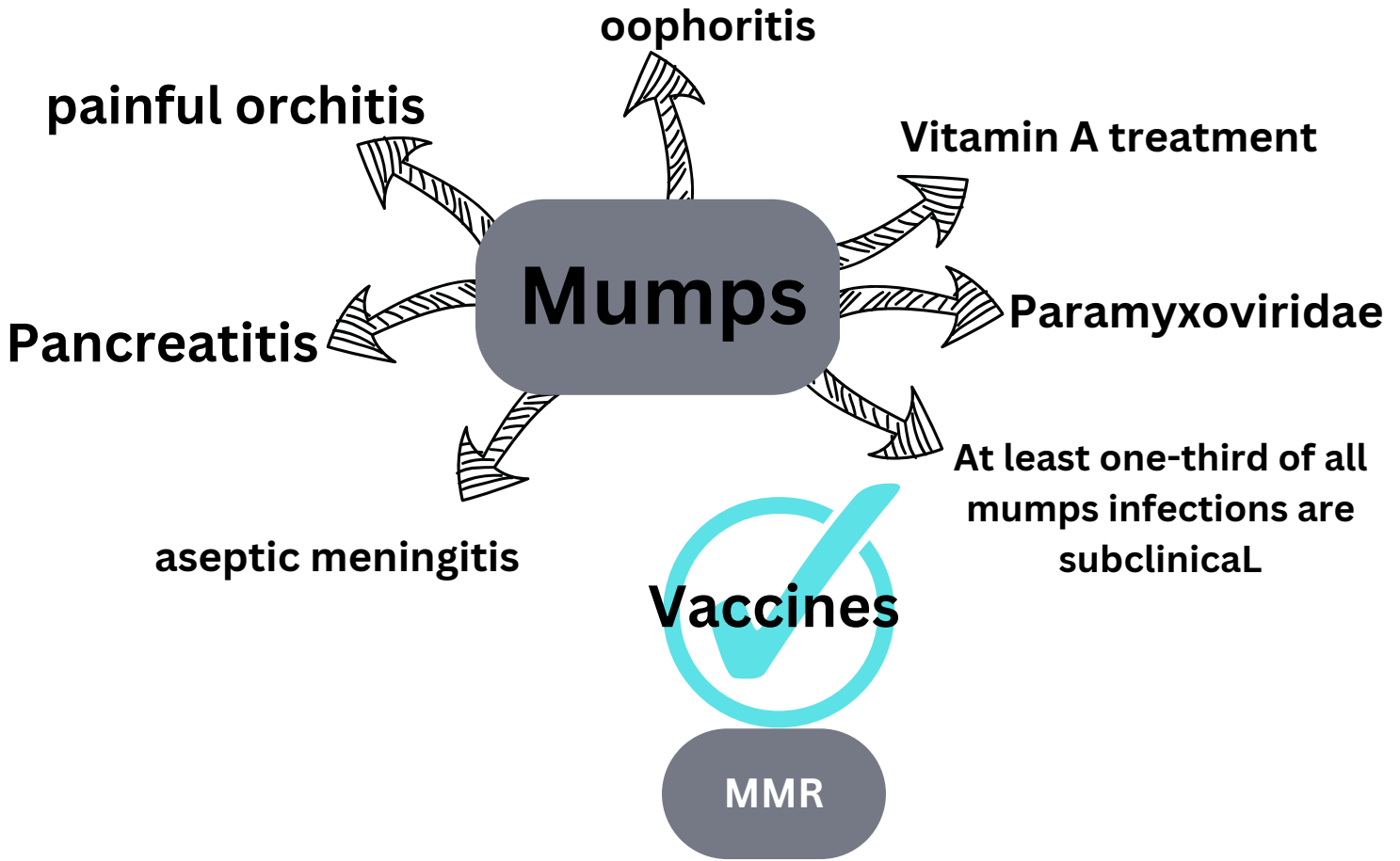
Negative sense
single-stranded RNA
enveloped



only one antigenic type of
measles virus

Vaccines

MMR



Enveloped with double-stranded DNA

**Herpesviruses
Poxviridae
Hepatitis B virus**

NON-Enveloped with double-stranded DNA

**Polyomaviridae
Papillomaviridae (Human papillomaviruses (HPV))
Adenoviridae**

Single-stranded DNA, non-enveloped

**Parvoviridae:
Parvovirus B19
bocaviruses**

double-stranded non-enveloped RNA

Rotavirus

positive-sense single stranded RNA non-enveloped

**Rhinoviruses
Enteroviruses
Hepatitis A, E virus
Norovirus
Astrovirus
Sapovirus**

positive-sense single stranded RNA enveloped

**Togaviridae
Hepatitis C virus
Coronaviridae**

negative-sense single stranded RNA enveloped

**Rabies
Hepatitis D virus
Orthomyxoviridae (Influenza viruses)
Paramyxoviridae (MM)**