

تشخیص سرخکان با توجه به ظرفیتهای موجود افغانستان

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Diagnosis

- Measles is readily diagnosed on clinical grounds by clinicians.
- The **US CDC** clinical criteria for case definition requires the following:
 1. Generalized rash lasting 3 days or longer
 2. Temperature of 101.0°F (38.3°C) or higher
 3. Cough, coryza, or conjunctivitis
- ▶ **Cases are classified by CDC as follows:**
 - ❖ Suspected
 - ❖ Probable
 - ❖ Confirmed

➤ laboratory identification and confirmation of the diagnosis are necessary for the purposes of:

1. public health and
2. outbreak control

➤ Laboratory confirmation is achieved by:

1. serologic testing for immunoglobulin G (IgG) and M (IgM) antibodies,
2. isolation of the virus, and
3. reverse-transcriptase polymerase chain reaction (RT-PCR) evaluation

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- CBC may reveal **leukopenia** with a **relative lymphocytosis** and **thrombocytopenia**,
- LFT results may reveal **elevated transaminase levels** in patients with measles hepatitis.

Cont...

► Antibody Assays:

□ Immunoglobulin M

- quickest method of confirming acute measles,
- IgM may not be detectable during the first 2 days of rash,
- obtain blood for measles-specific IgM on the third day of the rash or on any subsequent day up to 1 month

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- IgM level remains positive 30-60 days after the illness in most individuals,
- the IgM titer may become undetectable in some subjects at 4 weeks after rash onset.
- ❖ **False-positive** results can occur in patients with **rheumatologic diseases**, **parvovirus B19 infection**, or **infectious mononucleosis**.

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□ Immunoglobulin G

- a 4-fold rise in IgG antibodies between acute and convalescent sera,
- IgG antibodies may be detectable 4 days after the onset of the rash,
- recommended that specimens be drawn on the seventh day after rash onset.
- Blood drawn for convalescent serum should be drawn 10-14 days after that drawn for acute serum.
- The earliest confirmation of measles using IgG antibodies takes about 3 weeks from the onset of illness.

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❖ **IgG levels can be explained by:**

- I. current infection,
- II. immunity due to past infection
- III. vaccination,
- IV. maternal antibodies present in infants younger than 15 months.

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► Viral Culture:

- Throat swabs and nasal swabs,
- Urine specimens,
- Viral genotyping(determine whether an isolate is endemic or imported)
- feasible method of diagnosis in immunocompromised patients.
- (identification of measles antigen by immunofluorescence in immunocompromised patients)

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► Polymerase Chain Reaction:

- Reverse-transcription polymerase chain reaction (PCR) evaluation is highly sensitive,
- rapidly confirm the diagnosis of measles.

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- ▶ Lumbar puncture,
- ▶ Tissue Analysis and Histologic Findings,
- ▶ Brain biopsies

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