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WS

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

WS/T 296-2017

Replacing WS 296-2008

**Diagnosis for measles
(English Translation)**

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Foreword

Chapter 5 of this standard is mandatory, the rest are recommended terms.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces WS 296-2008 "measles diagnostic criteria." This standard from the date of implementation, WS 296-2008 abolished at the same time.

This standard compared with WS 296-2008, the main changes are as follows.

- Modified abbreviations (see Chapter 2, Chapter 2 of the 2008 edition);
- revised the diagnosis of measles (see Chapter 3, Chapter 3 of the 2008 edition);
- revised the definition of clinical diagnosis (see Chapter 5, Chapter 5 of the 2008 edition);
- Increased standard operation of laboratory test methods (see Appendix A and Appendix B, 2008 edition of Appendix A and Appendix B);

- Increased measles epidemiology, especially within the epidemiological characteristics, clinical manifestations, complications, etc., of transmission of measles under the new situation (See Appendix C, 2008 edition of Appendix C).

This standard was drafted. China Center for Disease Control and Prevention, China Center for Disease Control and Prevention virus prevention and control, the Capital Medical University Affiliated to Beijing Ditan Hospital, Capital Medical University Affiliated Beijing Children's Hospital, Guangdong Provincial Center for Disease Control and Prevention, Zhejiang Province Disease Prevention and Control System Center.

1 Scope

This standard specifies the diagnosis of measles, diagnostic principles, diagnosis and differential diagnosis.

This standard applies to all types of medical and health institutions at all levels and their medical staff on the diagnosis of measles.

2 Abbreviations

The following abbreviations apply to this document.

CPE. cytopathic effect DEPC. diethyl pyrocarbonate ELISA. enzyme-linked immunosorbent assay IgG. immunoglobulin G IgM. immunoglobulin M RF. rheumatoid factor RNA. ribonucleic acid RT-PCR. reverse transcription-polymerase chain reaction RPM. revolutions per minute OD. optical density value VTM. virus transportation medium

3.1 Epidemiology history

3.1.1 7 to 21 days before rash and measles patients diagnosed with contact history.

3.1.2

Before the rash 7 d ~ 21 d have measles epidemic areas of living or travel history.

3.2 Clinical manifestations

3.2.1

fever, body temperature is generally $\geq 38^{\circ}\text{C}$.

3.2.2

in the course of the first 3 days to 4 days began red rash, rash skin normal. Rash sequence generally from the ear, the face began, Expands from top to bottom and can affect mucous membranes. Rash time generally lasts 3 d ~ 5 d.

3.2.3

cough, runny nose, sneezing and other upper respiratory tract symptoms of catarrhal, and photophobia, tearing, conjunctivitis symptoms.

3.2.4

Early onset (usually in the course of the first 2 days to 3 days) in the oral buccal mucosa seen measles mucosal spots (Koplik spot).

3.3 Laboratory testing

3.3.1 8 h to 56 d before blood sampling did not inoculate attenuated live attenuated measles vaccine, and blood samples within 28 d after measles IgM positive (See Appendix A).

3.3.2

Measles virus positive or isolated from measles virus in throat swabs or urine specimens (see Appendix B).

3.3.3

recovery of blood samples of measles IgG antibody titers than the acute phase ≥ 4 -fold increase, or acute antibody negative and convalescent antibody positive transfer (See Appendix A).

4 Diagnostic principles

According to epidemiological history, clinical manifestations and laboratory test results to be diagnosed.

5.1 Suspected cases

Available in 3.2.1, 3.2.2 and 3.2.3.

5.2 Clinical diagnosis of cases

Suspected case of any of the following.

- a) have 3.1.1 and/or 3.1.2 and are not definitely diagnosed as other diseases;
- b) have 3.2.4;
- c) No specimens were collected for laboratory testing and no other diagnosis was clearly identified.

5.3 Laboratory confirmed cases

Suspected cases have any one of 3.3.1, 3.3.2, 3.3.3.

5.4 Exclude cases

Suspected case of any of the following.

- a) Measles IgM antibodies were negative for blood samples collected within 4 to 28 days after rash and did not comply with 3.1.1 and/or 3.1.2;
- b) Blood samples collected within 3 days after rash were tested for measles IgM antibody negative, measles virus nucleic acid negative in eligible throat swabs/urine samples Sexual, and does not comply with 3.1.1 and/or 3.1.2;
- c) No samples were collected for laboratory testing but were definitely diagnosed as other diseases;
- d) etiological specimens were isolated and identified as measles vaccine strain virus or vaccine virus positive for the virus, and no measles wild virus was also isolated Rash wild virus nucleic acid-positive; or in line with the following five cases.
 - 1) a rash, with or without fever, but no cough and other respiratory symptoms;
 - 2) rash after 7 to 14 days after inoculation of attenuated live vaccine containing measles;
 - 3) Blood samples were collected from 8 d to 56 d after inoculation of live attenuated measles vaccine, and IgM was detected in measles.
 - 4) epidemiological survey found no cases of recurrence caused by the case;
 - 5) There are no other reasons that can be clearly explained by epidemiological and laboratory investigations.

6 Differential diagnosis

The disease should be rubella, scarlet fever, children and other rash fever rash disease identification (see Appendix C).

Appendix A.

(Normative)

Serological diagnostic methods A.1 Blood specimen collection, storage and transport A.1.1 Blood specimen collection Blood samples were taken within 28 days of rash for serological detection of measles IgM and IgG.

A.1.2 In the following cases need to collect the second blood specimen Blood samples collected within 3 days after rash were negative for measles IgM antibody and no