

#### 澳門特別行政區政府 Governo da Região Administrativa Especial de Macau 衛生局 Serviços de Saúde

(Translation)

## **Scarlet Fever**

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Scarlet fever is an acute respiratory infectious disease caused by group A β-hemolytic streptococcus (pyogenic streptococcus) infection.

## **Incubation period and infectivity**

Incubation period of scarlet fever is 1-3 days.

The disease has the highest infectivity 1 day before onset and during the rash period. Communicability period is 10-21 days in untreated cases; if treated with antibiotics, the period may be shortened to 24 hours.

### Mode of transmission

Scarlet fever is a respiratory disease which is mainly transmitted through contact with infected oral secretions, nasal secretions and droplets. Scarlet fever is highly contagious before and after the onset of symptoms.

# Susceptible population

Population is generally susceptible. As there are multiple serotypes of group A streptococcus, and no cross-immunity between the serotypes, reinfection of scarlet fever can be developed. The disease can be contracted year-round, but with higher incidence in winter and spring, and usually affects children between 2 to 8 years of age. Reservoirs are mainly patients and carriers of the disease, patients of infections caused by  $\beta$ -hemolytic streptococcus can also serve as reservoirs.

### Clinical features

Scarlet fever presents as fever, "strawberry" tongue, sore throat and rash over entire body; when the rash fades, there is desquamation or flakes peeling. The rash is



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fine, red, sandpaper-like and blanches upon pressure; the rash generally appears on the neck, chest, axilla, elbow, groin and inner surfaces of the thighs. Typically, the scarlet fever rash does not involve the face, but the cheek area will become flushed, and the area around the mouth will stay pale. High fever, nausea and vomiting often accompany severe infections. During convalescence, skin peeling occurs at the tips of fingers, toes, palms and sole, and less often over trunk and limbs.

If not treated timely and appropriately, scarlet fever is sometimes complicated with middle ear infection, rheumatic fever, renal disease, pneumonia, lymphadenitis, arthritis, etc.

# Management

People suspected to have scarlet fever should consult medical advice. Patients with confirmed diagnosis should be treated with a full course of antibiotics, as well as symptomatic and supportive treatment.

# **Precautionary measures**

### Personal hygiene

- 1. Wash hands properly to keep hands clean, or use alcohol-based handrub, especially before touching the eyes, nose and mouth;
- 2. Cover nose and mouth with tissue paper when sneezing or coughing, and dispose of the tissue paper properly;
- 3. Do not share towels with others:
- 4. Wear gloves before handling objects or areas contaminated by secretions or excretions;
- 5. Exercise regularly, maintain adequate rest and a balanced diet; avoid smoking and crowded place;
- 6. Avoid close contact with individuals with symptoms of scarlet fever;
- 7. If developing fever, cough or any respiratory symptoms, wear a mask and seek early medical advice;
- 8. If you develop symptoms of scarlet fever, rest at home and refrain from school/work.



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## **Environmental hygiene**

- 1. Keep indoor areas tidy, clean and ventilated.
- 2. Clean and disinfect toys, furniture, floor and frequently touched surfaces at least once daily;
- 3. Wipe and disinfect objects or areas contaminated by secretions or excretions properly and immediately;
- 4. Provide toilets with liquid soap and disposable tissues or hand dryer.

### **Control measures**

- 1. In pursuant to Decree-Law no. 1/97/M, in an educational institution, patients diagnosed with scarlet fever or other nasopharyngeal infections caused by group A streptococcus should be temporarily suspended from school / work until they are clinically cured.
- 2. If treated with appropriate antibiotic therapy, the infected should be excluded from school / work until 24 hours after antibiotic therapy is instituted.
- 3. Clinical physicians should report individually suspected / probable / confirmed cases to Centre of Disease Control and Prevention (CDC) of the Health Bureau within 24 hours upon diagnosis; meanwhile, laboratories are required to report cases that match the criteria of the laboratory diagnostic standard.
- 4. When cluster infections are detected, educational institutions should complete the [Notification Form of Collective Illness related to Infectious Diseases in School] at once and fax to the Education and Youth Affairs Bureau / Social Welfare Bureau and CDC of the Health Bureau.

Centre for Disease Control and Prevention

Health Bureau

Government of Macao SAR