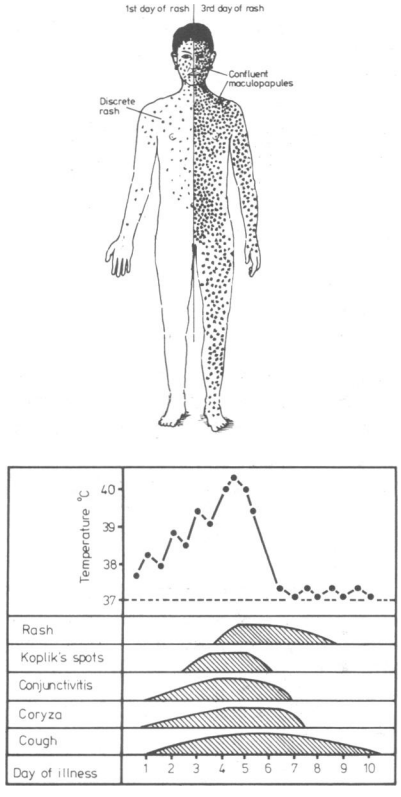
ABC of 1 to 7

H B VALMAN

INFECTIOUS DISEASES

Measles

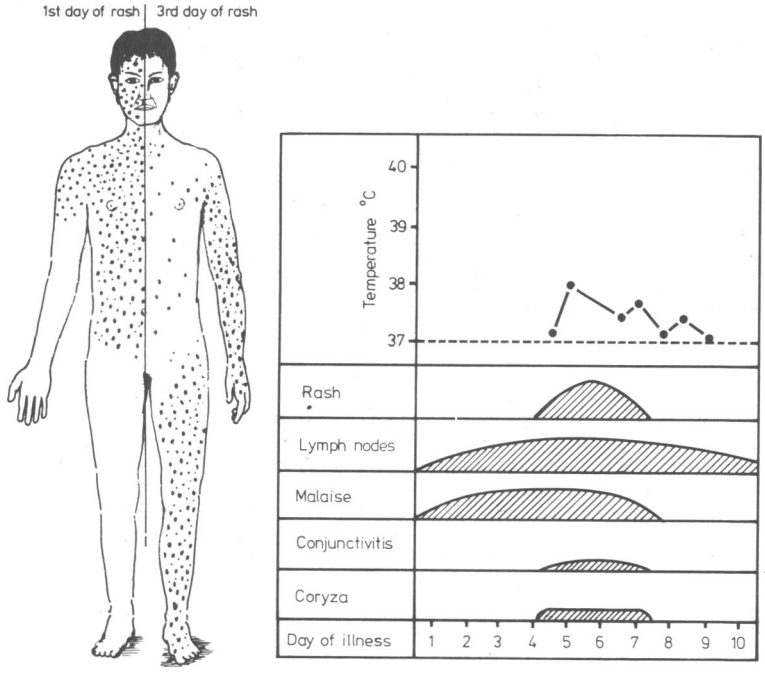


After an incubation period of 10-14 days there is a prodromal illness with cough, fever, and nasal discharge. The presence of a cough is essential for the diagnosis. During the prodromal period there are minute white spots on a red background on the buccal mucosa opposite the molar teeth (Koplik's spots). After about three days a maculopapular rash appears on the face and behind the ears and spreads downwards to cover the whole body while older lesions become more blotchy. As the rash appears the Koplik's spots fade. The rash begins to fade after three or four days and is accompanied by a fall in the temperature and reduction in malaise. Some children become very irritable. Measles is no longer contagious after the fifth day of the rash, but exposure has usually occurred before the diagnosis is obvious. Attempts to isolate siblings from each other are useless.

Acute otitis media is the commonest complication of measles; signs usually appear about three days after the onset of the rash. Antibiotics should be given if these signs appear but there is no place for prophylactic antibiotics against otitis media. The onset of bronchopneumonia may be difficult to detect as a severe cough is part of the measles. A raised respiratory rate at rest or adventitious sounds are confirmatory signs. The serious complication of encephalitis occurs in about 1 in 1000 affected children and causes drowsiness, vomiting, headache, and convulsions about seven days after the onset of measles. In developing countries measles has a high morbidity and mortality, and diarrhoea is a common feature, particularly in severely malnourished children.

A drug reaction in the presence of a viral infection is often difficult to distinguish from measles rash. Features suggesting a drug reaction are lack of cough, an irritating rash, or an atypical distribution of spots.

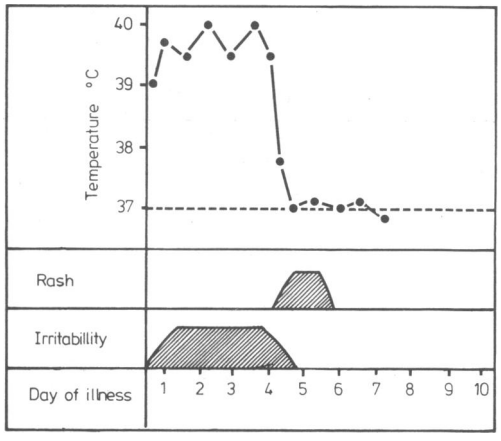
Rubella



Rubella or German measles is usually a mild illness and the rash may not be noticed. The incidence of rubella infections without rash may be 25%. When a rash does occur it appears as a pink, minute, discrete, macular rash on the face and trunk after an incubation period of 14-21 days. The suboccipital lymph nodes are enlarged and there may be generalised lymphadenopathy. Thrombocytopenia, encephalitis, and arthritis are rare complications of rubella. The period of infectivity probably extends from the latter part of the incubation period to the end of the first week of the rash.

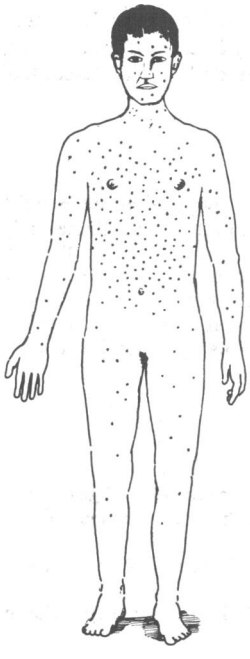
If rubella occurs during the first five months of pregnancy the fetus may die or develop congenital heart disease, mental retardation, deafness, or cataracts. If *any rash* occurs during pregnancy a specimen of blood should be taken immediately and again 10 days later for measuring rubella antibody titres to determine whether a recent infection with rubella has occurred. If there has been previous serological evidence that the mother is immune to rubella no tests are required.

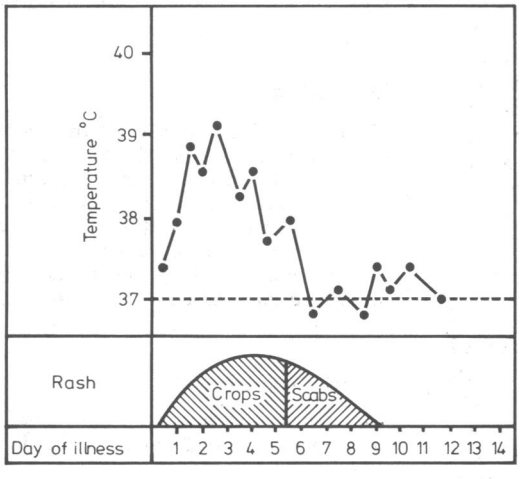
Roseola



Although fever may be present in the prodromal period of any infectious disease of childhood, pronounced fever is a notorious feature of roseola infantum. The temperature usually reaches 39° to 40°C and remains at this level for about three days. The temperature falls as discrete minute pink macules appear on the trunk; these may spread to the limbs within a few hours. The child appears less ill than might be expected from the height of the fever. The suboccipital, cervical, and postauricular lymph nodes are often enlarged and there is often neutropenia.

Chickenpox

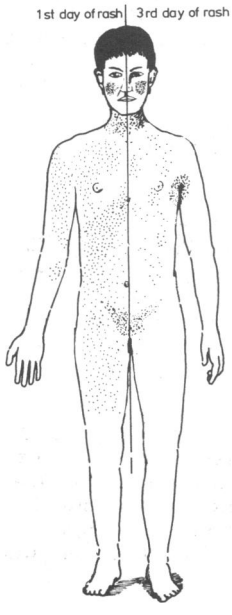


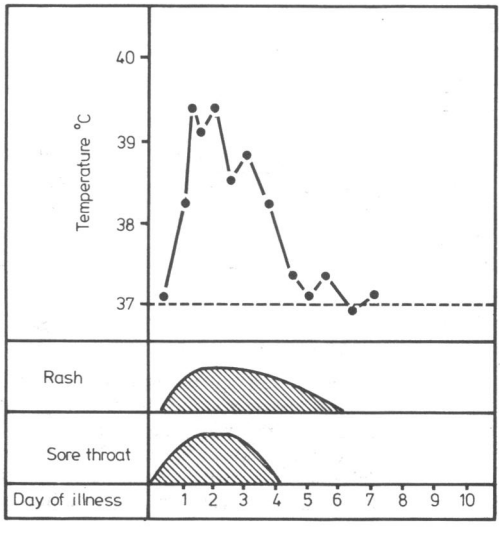


After an incubation period of 14-17 days the rash appears on the trunk and face. The spots appear in crops passing from macule to papule, vesicle and pustule within two days. Lesions in the mouth produce painful shallow ulcers and if they are in the trachea and bronchi may produce a severe cough. Severe irritation of the skin may occur and may be alleviated by calamine lotion and oral promethazine. The lesions normally pass through a pustular stage, and as this is not bacterial in origin, local or oral antibiotics are rarely required. Encephalitis is rare but often produces cerebellar signs with ataxia. This occurs three to eight days after the onset of the rash, and most patients recover completely.

Secondarily infected lesions and scabs removed by scratching may be followed by scarring. A child with chickenpox may transmit the disease to other susceptible children from one day before the onset of the rash until all the vesicles have crusted. The dry scabs do not contain active virus. Complete crusting of the lesions occurs from five to 10 days after the onset. Chickenpox may be contracted from a patient with herpes zoster.

Scarlet fever





Scarlet fever is less virulent than it was 40 years ago. Sequelae such as rheumatic fever and acute glomerulonephritis are very rare. It is caused by an erythrogenic strain of group A haemolytic streptococci. After an incubation period of two to four days fever, headache, and tonsillitis appear. Pin-point macules which blanch on pressure occur on the trunk and neck with increased density in the neck, axillae, and groins. A thick white coating on the tongue peels on the third day, leaving a "strawberry" appearance. The rash lasts a few days and is followed by peeling. A 10-day course of oral penicillin eradicates the organism and may prevent other children from being infected.

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