



# Topic 9

## Case Study of Fever with Rashes



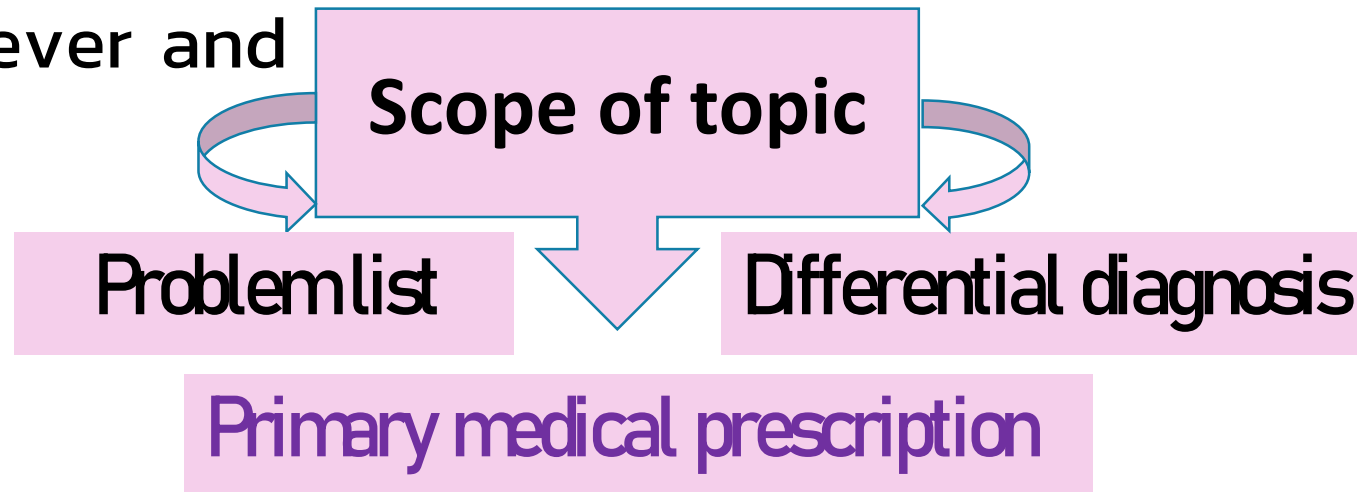
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# Lesson objectives

**By the end of the topic students should be able to:-**

- assess health problems according to patient with fever and rashes,
- determine differential diagnosis of patient with fever and rashes,
- provide primary medical prescriptions and care for a patient with fever and









# Chief complaints of the patient

A 7-year-old girl came to the hospital with a persistent high temperature, cough 5 days and rashes appeared after 3 days



History taking should attention to the onset rashes associated with symptoms cough, fever, food, clothes or dress up, daily activity, pets, allergic history and immunization.

➤ PE: examine the eyes, ears, oral mucosa, mount cavity, pharynx, chest, heart and **skin**.



# Case study

- A 7-year-old girl came to the hospital with a persistent high temperature, and cough 5 days. After 3 days of onset of fever, parent notices skin rashes appeared **on at the hairline** and spread downward to the neck, trunk, arms, legs, and feet.
- The parent states that her child has, runny nose, and red, watery eyes.
  - Today the fever is better while the rashes increased.
  - Have no known of drug allergic

# Physical examination <sub>1</sub>

## Vital Signs

T = 37.5 °C, P = 96 beat/min (bpm), fullness, regular rhythm,  
R = 24 bpm,  
BW= 7 kg, Ht.=105 cms.

## General

Good consciousness, appears to be uncomfortable but is sitting quietly next the parent.

## • Head and Face

Symmetry, Normal shape and size, Normal movement

**Both eyes found conjunctival injection and watery discharge.**

# Physical examination 2

**Ears** No discharge

Pinna no mass, No lesion

Mastoid no tenderness

**Nose** Symmetrical movement,

No abnormal of nasal alar nasal turbinate

**Watery discharge**

Both maxillary sinus, no tenderness or fullness

# Physical examination 3

**Mouth** Lip dry,

**Buccal mucosa present Koplik's spot at both sides**

Tongue - Normal papillae, No sign of inflammation

**Pharynx - Slightly injection**, no evidence of post nasal drip

Tonsil - no injection



## Chest

No adventitious sound

No murmur, No bruit

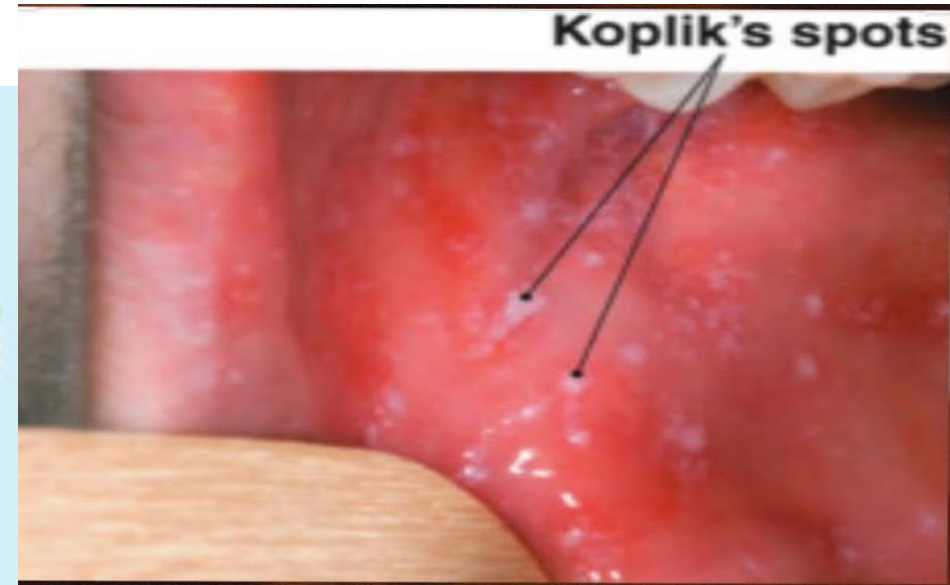
## CVS

Peripheral pulses equal, R = L

## Abdomen

Soft, no tenderness

Liver and spleen not palpable



Picture from:

[https://i.ytimg.com/vi/gVDpwhnu\\_hs/maxresdefault.jpg](https://i.ytimg.com/vi/gVDpwhnu_hs/maxresdefault.jpg)



# Physical examination 4



Picture from: Measles Rash Early Stages - Bing images

## **Skin**

The rash consists of small red spots, some of which are slightly raised.

Spots and bumps in tight clusters give the skin a blotchy red appearance.

**Tureniquet Test: negative**



# Problem lists

1. Low-grade fever 5 days,  $T = 37.5\text{ }^{\circ}\text{C}$
2. Runny nose, and red, watery eyes.
3. Rashes appeared on at the hairline and spread downward
4.  $T = 37.5\text{ }^{\circ}\text{C}$ ,
5. Conjunctival injection and watery discharge BE
6. Nasal water discharge
7. Buccal mucosa present Koplik's spot at both sides,
8. Pharynx – slightly injection
9. Small red spots, some of which are slightly raised.  
Spots and bumps in tight clusters

# Differential diagnosis

## ✓ Measles

1. Rubella
2. Dengue fever

## Rubella: X no

Maculo-papular rashes with  
in 24 hours,

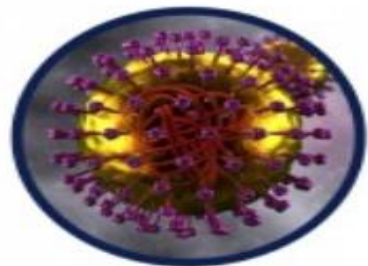
Post-auricular LN , Occipital LN  
enlarged and mild tender

## Dengue fever : X no

Petechial hemorrhage, Tourniquet Test 5 min + ve

Convalescent petechial rash nearly or after fever gone  
away

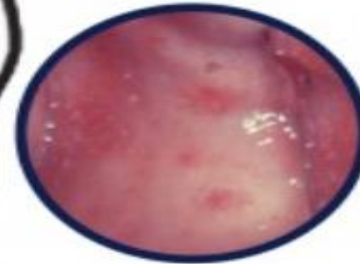
# HOW TO RECOGNISE measles



**MEASLES VIRUS**

Fever  
Sore, red eyes  
A runny nose or a sniffle

Generally feeling unwell



**MOUTH SPOTS**

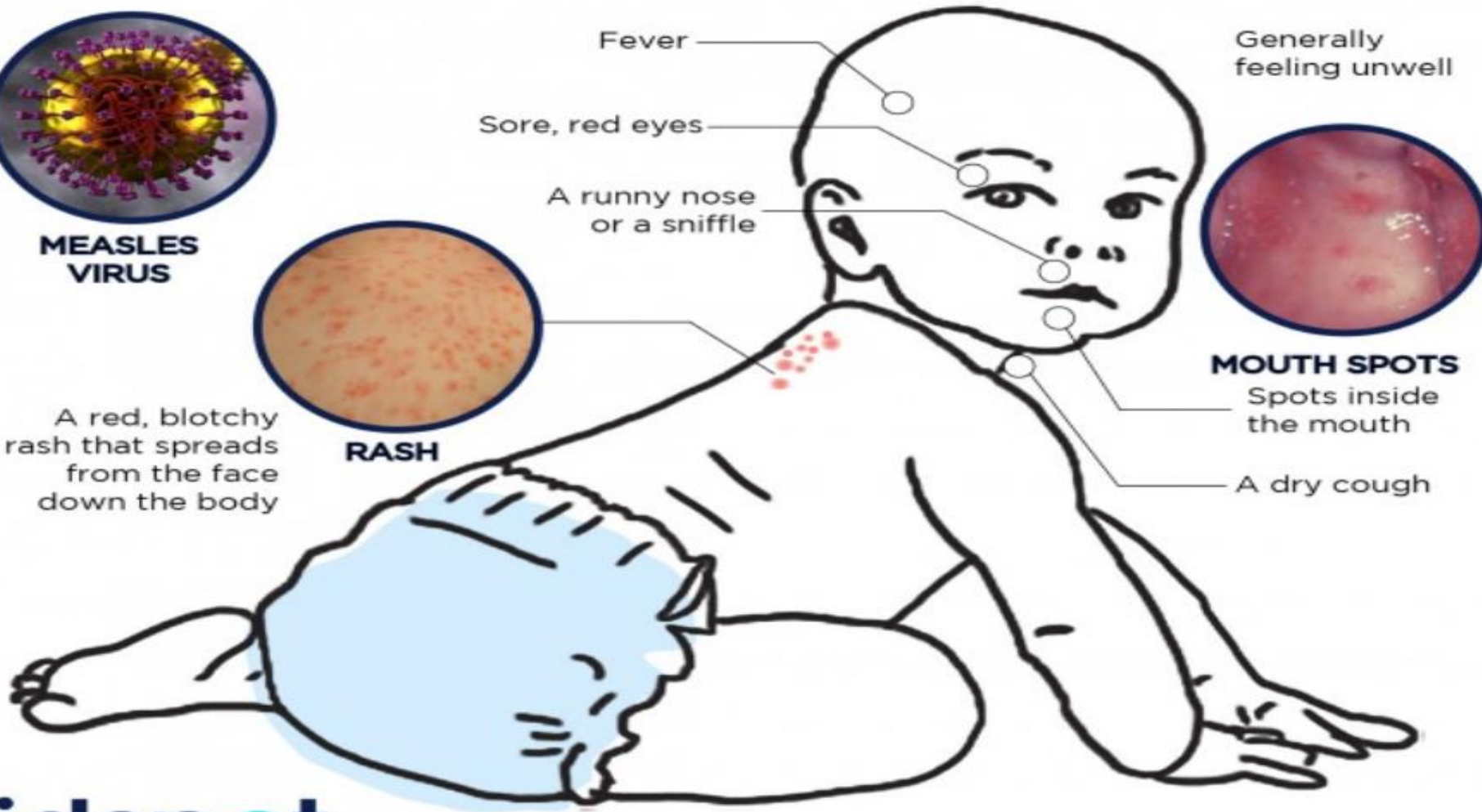
Spots inside the mouth

A dry cough



**RASH**

A red, blotchy rash that spreads from the face down the body



Pictures from:  
<http://healthlifemedia.com/healthy/wp-content/uploads/2016/01/measles.jpg>

# Plan for diagnosis

➤ CBC (order by physician doctor)

➤ In this case study no need to submit CBC (according to signs and symptoms clearly)

## ✓ Measles

1. Rubella
2. Dengue fever,

...Marked WBC, (PMN lymphocyte) RBC, Plt..



# Final diagnosis : Measles

## Specific treatment

- No
- Prevention: vaccination:  
Measles vaccine protects against becoming infected with measles. The CDC recommends children get two doses of the measles vaccine, starting with the first dose at 12 through 15 months of age, and the second dose at ages 4 through 6 years.

**In Thailand, 9 m. and 2.5 years**

## Symptomatic treatment

- Antihistamine such as Chlorpheniramine maleate, Cetirizine, Hydroxyzine syrup or tab
  - **Acetaminophen (Paracetamol) syrup or tab q 6-8 hrs. for fever or pain.**
- Force clean water



# Summary

- A 7-year-old girl came to the hospital with fever, and cough 5 days.
- After 3 days of the onset of fever skin rashes appeared **on the hairline** and spread downward to the neck, trunk, arms, legs, and feet.
- Also, symptoms of runny nose, and red, watery eyes.
- A nature of occurring rashes and buccal mucosa present Koplik's spot at both sides are the evidence for supporting **measles diagnosis**.
- **The symptomatic treatment of the girl are antihistamine, and anti fever.**



# Thank You!



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