

The RSV Stories

การประชุมใหญ่สมาคมโรคติดเชื้อในเด็กแห่งประเทศไทย ประจำปี 2567 ครั้งที่ 28
5 พฤษภาคม 2567 (9.30-10.00 น.)

รศ.พญ. วันทปรียา พงษ์สามารถ

คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล



Outline

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RSV Virus and High risk for severe RSV

2

Epidemiology of RSV in Thailand

3

RSV Preventive strategies

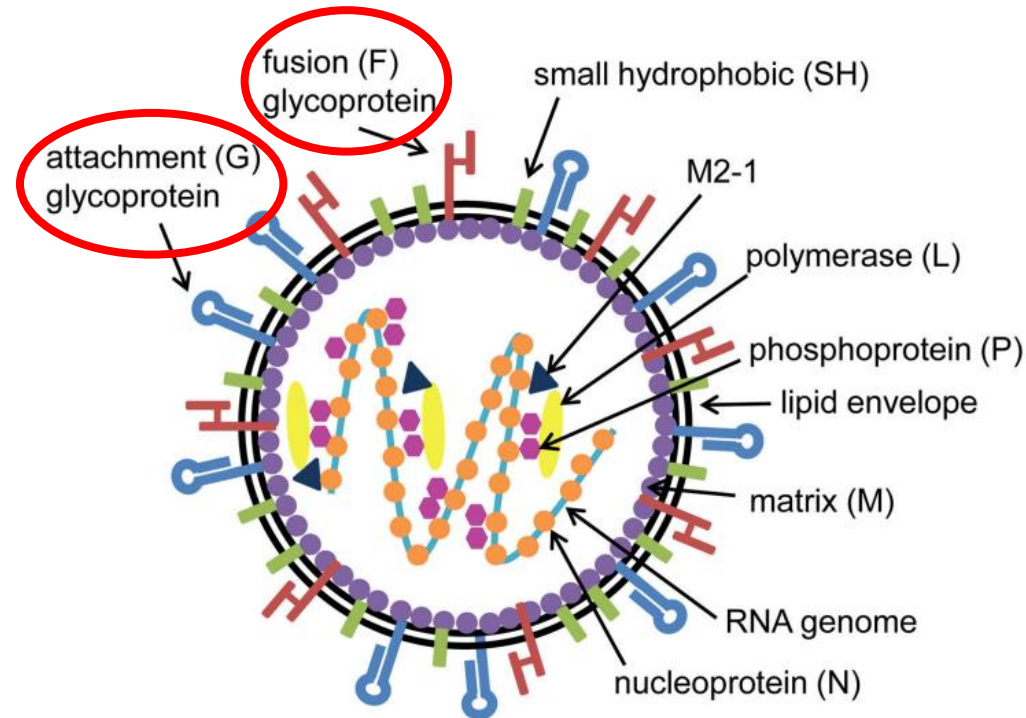
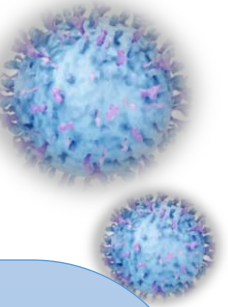
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Recommendation of Palivizumab by RCP

RSV Virus

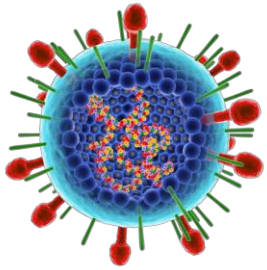


Respiratory Syncytial Virus (RSV)



- Human RSV exists as 2 antigenic subgroups, **A and B**, often cocirculate during the same RSV season.
- The RSV envelope contains 3 surface glycoproteins:
 - **Glycoprotein G**: involved in **viral attachment** to the cell and assists in the ability of the virus to evade host immunity
 - **Fusion protein F**: enables **viral penetration** of the epithelial cell once viral attachment occurs.
 - Small hydrophobic protein (SH)
- **Antibodies directed against F and G** are **protective** and are **neutralizing antibodies**
- In contrast to G protein, **F protein** is conserved, making it an attractive **target for vaccine and monoclonal antibody** development

Respiratory Syncytial Virus In Children



- Nearly 70% of infants are infected with RSV in 1st year of life, and nearly all (90%) are infected within 2 years of life, and reinfection throughout life is common, but usually less severe
- **Most hospitalizations for RSV occur in otherwise healthy** infants born at term, representing up to **75%** of the hospitalizations due to RSV infections

Transmission mode

- Direct and indirect contact transmission
- **Contagious period:** 1-2 days before to 3-8 days after symptom onset
- **Incubation period:** 2-8 days (average 4-6 days)

Clinical manifestations

- **Majority:** upper respiratory tract infections
- **20-40% have lower respiratory tract infections: bronchiolitis, pneumonia**

Diagnosis

- **Specimens:** respiratory secretion from nasopharynx, nasal discharge, sputum, endotracheal aspirate, BAL
- **Diagnostic methods:** rapid Ag test, RT-PCR

Treatment

- **No effective antiviral agents**
- **Supportive and symptomatic treatments:** antipyretic, oxygen supplement, respiratory secretion care

Prevention

- **Non-pharmaceutical intervention:** masking, hand washing, surface cleaning, social distancing
- **Monoclonal antibody**
 - Palivizumab: only for indicated baby, e.g., preterm, CLD, CHD, etc.
 - Nirsevimab
- **RSV Vaccine**