

The Immunogenicity and Safety of Pneumococcal Conjugate Vaccine in Human Immunodeficiency Virus-Infected Thai Children

Chareeya Thanee, M.D.

**Infectious Disease Unit, Department of Pediatrics
Faculty of Medicine, Chulalongkorn University**



โรงพยาบาลพาลงกรณ์
สภากาชาดไทย

Background

- HIV-infected children: 21-32 fold greater risk of invasive pneumococcal diseases (IPD) than HIV-uninfected children^[1]
- Previous studies: the immunogenicity of pneumococcal conjugate vaccine (PCV) in HIV-infected; 62%-100%^[2-7]
- Hypothesis: HIV-infected children after received HAART have a good immunogenicity of PCV-7 comparable to HIV-uninfected children.

[1] Nunes MC. et al . AIDS 2011;25:453-62.

[2] Spoulou VI. et al. Vaccine 2005;23:5289-93.

[3] Nachman S. et al. Pediatrics 2003;112:66-73.

[4] Abzug MJ. et al. Pediatr Infect Dis J 2006;25:920-9.

[5] King JC. et al. Pediatrics 1997;99:575-80.

[6] Madhi SA. et al. Pediatr Infect Dis J 2005;24:410-6.

[7] Tarrago D. et al. Clin Diagn Lab Immunol 2005;12:165-70.

Objectives

- **Primary objective**

- To evaluate **immunogenicity** of PCV-7 in HIV-infected compared to HIV-uninfected children

- **Secondary objective**

- To evaluate **safety** of PCV-7 vaccination in both groups

Materials and Methods

- A prospective study: April-December 2010
- Inclusion criteria
 - **59 HIV-infected children**
 - **30 HIV-uninfected children**
 - Age: 2 months-9 years old
- Exclusion criteria
 - Previous received PCV or PPV
 - Active opportunistic infection
 - Using steroid/ immunosuppressive drugs

PPV: Pneumococcal polysaccharide vaccine

Materials and Methods

M0

1

2

3

4

5



PCV-7



2-6 months



PCV-7



7-23 months



PCV-7



2-9 years

Each PCV-7 dosage: 0.5 ml, IM