

## CLINICAL CHARACTERISTICS AND COSTS OF CHICKENPOX HOSPITALIZATION IN THAI CHILDREN

Warunee Punpanich, MD, PhD\*,<sup>1,2</sup> Siriluk Chanveerachai, MD,<sup>1</sup> Suchada Srisarang,  
BSc, MS<sup>3</sup>

<sup>1</sup>Department of Pediatrics, Queen Sirikit National Institute of Child Health, Bangkok;

<sup>2</sup>College of Medicine, Rangsit University, Bangkok; <sup>3</sup>Clinical Research Unit, Queen  
Sirikit National Institute of Child Health, Bangkok, Thailand

### Abstract

**Introduction:** Cost effectiveness analysis of including varicella vaccination in the Thai National Immunization Program has not been available. This is probably due to lack of relevant information on disease severity and impact on healthcare resources incurred by severe primary varicella infection requiring hospitalization of Thai children.

**Objective:** To determine clinical characteristics of hospitalized primary varicella zoster infection; particularly, disease severity, prevalence of complications, and use of healthcare resources in terms of length of stay and hospital charges.

**Study designs:** Retrospective descriptive study

**Study population:** Children aged one month to 18 years who were hospitalized with chickenpox between 2007 and 2011 in an urban medical center in Bangkok, Thailand.

**Methods:** Information on clinical manifestations, complications, outcomes, and hospital charges were obtained by medical record abstraction and descriptively analyzed.

**Results:** A total of 101 cases of chickenpox were identified, with a median (interquartile range/IQR) age of 4 (0.8, 7.25) years. Underlying predisposing conditions for severe varicella infection were identified in 35 cases (34.7%). Seventy four of 101 (73.3%) patients developed certain complications, with skin and soft tissue infections being the most common (50.5%), followed by pneumonia (12.7%) and neurological complications (6.4%). There were no fatal cases. Median (IQR) duration of hospitalization and hospital charges were 6 (3, 9) days and US\$ 330.2 (\$139.3, \$1013.5), respectively. Children with predisposing conditions for severe varicella were significantly older, incurring 6-fold higher hospital charges and 2-fold longer hospitalization duration compared to their counterparts.

**Conclusions:** The high rate of complicated varicella and financial burden reported in this study suggested that the severity of varicella complications in healthy children might have been previously underestimated.

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