

# PERTUSSIS IN THAI ADULT AND PEDIATRIC PATIENTS PRESENTING WITH PROLONGED ACUTE COUGH

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**Abstract.** Pertussis is a highly contagious respiratory disease caused by *Bordetella pertussis*. In Thailand, a national passive surveillance system showed a rise in the incidence of pertussis during 2015-2016, especially among infants less than one year of age. In order to investigate the rate of pertussis in children and adult presenting with cough of more than seven days and to evaluate associated factors, a cross-sectional study was conducted at King Chulalongkorn Memorial Hospital, Bangkok and at Phrasaeng Hospital, Surat Thani, Thailand between September 2016 - 2017. Nasopharyngeal swabs were collected from out-patient and hospitalized children and adults who presented with cough of more than seven days. Each specimen was tested for presence of *Berdetella pertussis* by quantitative real-time PCR and further confirmed by conventional PCR and nucleotide sequencing. Of 70 patients presenting with prolonged acute cough enrolled in this study, seven cases were diagnosed with pertussis by confirmed sequencing, comprising four infants younger than one year of age and three adults 27, 38 and 56 years of age. Patients with pertussis have significantly more reported whooping ( $p = 0.001$ ), cyanosis ( $p = 0.002$ ), tachypnea ( $p = 0.001$ ), and chest retractions ( $p = 0.009$ ) compared to the enrolled patients. Our results highlight the presence of pertussis in 10% of patients with prolonged acute cough. Physicians should acknowledge the possibility of pertussis in infants presenting with the abovementioned signs and symptoms.

**Keywords:** *Bordetella pertussis*, pertussis, prolonged acute cough, Thai patients

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