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EPIDEMIOLOGY OF HAND FOOT MOUTH DISEASE IN NORTHERN THAILAND IN 2016: A PROSPECTIVE COHORT STUDY

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Objective: To determine the correlations between the meteorological data and the number of hand foot mouth disease (HFMD) in 2016 in northern Thailand, and to estimate the medical costs.

Methods: A prospective cohort study design was conducted. Numbers of HFMD were collected from 49 hospital from three different provinces in northern Thailand; 16 hospitals from Chiang Rai Province, 7 hospitals from Pha Yao Province, and 26 hospitals from Chiang Mai Province. Questionnaire had been developed and tested for validity and reliability before use. The specific form to collect the meteorological data was developed and used in the filed. All information were pulled into the same data spread sheet before analysis. Chi-square and correlation were used for explaining the epidemiology of HFMD in the areas. An alpha error at 0.05 was used to determine the statistical significance level.

Results: A total of 8,261 cases were analyzed in the study. 56.0% were males, 96.1% were aged≤ 5 years, 97.4% were OPD cases, 75.5% were reported in raining season, and 43.2% were from Chiang Mai Province. The number of HFMD cases had statistical significant correlations with temperature, air pressure, relative humidity, and rainfall amount. Averagely, 216 baht and 3,678 baht per case per visit had to be expended for medical cost in OPD and IPD cases respectively. Most of the cases had been reported in the border areas; Thai-Myanmar, and Thai-Lao.

Conclusions: Thailand health care system should provide a concrete schedule for taking care of HFMD patients during raining season, and should develop an effective preventive and control program for HFMD particularly among children less than 6 years.