

BENEFIT COST ANALYSIS OF CLINICAL DIAGNOSIS FOR  
MALARIA



Mr. PHONE MYINT

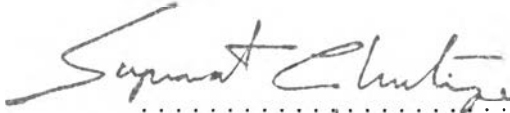
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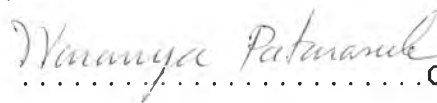
By : Phone Myint  
Program : Health Economics  
Thesis Advisor : Asst. Prof. Pongsa Pornchaiwiseskul, Ph.D.  
Thesis Co-Advisor : Prof. Pirom Kamol-Ratanakul, M.D.

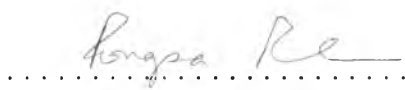
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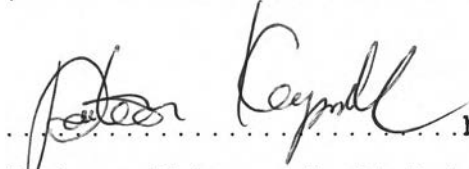
  
.....Dean of Graduate School  
(Prof. Supawat Chutivongse, M.D.)

Thesis Committee:

  
.....Chairman  
(Assoc. Prof. Waranya Patarasuk)

  
.....Thesis Advisor  
(Asst. Prof. Pongsa Pornchaiwiseskul, Ph.D.)

  
.....Thesis Co-Advisor  
(Prof. Pirom Kamol-Ratanakul, M.D.)

  
.....Member  
(Baitoon Kaipornsak, Ph.D.)

พิมพ์ต้นฉบับบทความวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมนี้เพียงแผ่นเดียว

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HEALTH ECONOMICS

BENEFIT COST ANALYSIS/CLINICAL DIAGNOSIS FOR MALARIA/  
PRESUMPTIVE TREATMENT

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An approach was developed to evaluate benefits and costs of introducing and using a set of clinical criteria in selecting cases for giving presumptive treatment where existing practice is using fever as the sole criterion. The study is based on hypothetical data, secondary data from the annual reports of the Vector Borne Diseases Control Program of Myanmar and the literature reviewed.

A set of clinical criteria was developed using a logistic regression model to predict blood slide positivity. Rainy season, temperature equal to or higher than 38° C and splenic enlargement were found to be statistically significant. Based on the specificity and sensitivity of the criteria considered; two equations, one for valuing benefits and the other for valuing costs arising from introducing and using the clinical criteria were developed.

Benefits were defined as saving of drug costs for treating false positive cases unnecessarily. Costs were measured in terms of additional costs incurred on introducing and using the clinical criteria developed. Both benefits and costs were evaluated from the provider viewpoint. Benefit : cost ratio was found to be more than unity when the slide positive rate was substantially low and the number of new cases infected by each false negative case was not high. If the blood slide positivity rate is high this approach may not be applicable.

Although there are some limitations to the approach its simplicity makes it easy to understand and apply. It may also supplement a more comprehensive approach in evaluating benefits and costs that could arise from introducing a new diagnostic technology in controlling malaria.

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ลายมือชื่ออาจารย์ที่ปรึกษาร่วม..... P. Kamol

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