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APPENDIX

APPENDIX

Clinical criteria to identify malaria patient groups:

All patients are at least 16 years old both female and male, non-pregnant female, and free of pre-existing chronic renal failure; all gave written, informed consent, unless unable, in which case consent was sought by a legally acceptable representative.

1. **Severe malaria patient group**

Patients in this group have *P.falciparum* malaria with one or more of the following clinical or laboratory criteria:

1.1 Cerebral malaria (GCS < 11 with no other cause apparent)

1.2 Severe anaemia (Haematocrit < 20% with a parasite count
   of >100,000/mm^3)

1.3 Renal failure (creatinine > 3g/dL or anuria: < 50 ml urine output in 24 hours

1.4 Respiratory insufficiency or radiologically diagnosed pulmonary oedema

1.5 Abnormal spontaneous bleeding

1.6 Generalized convulsions (≥ 2 in 24 hours)

1.7 Venous bicarbonate < 15 mmol/L

1.8 Hyperparasitaemia (> 10% asexual stage parasitaemia)

1.9 Venous lactate > 4 mmol/L

1.10 Jaundice (bilirubin > 2.5mg/dl with a parasite count of >100,000/mm^3)

1.11 Hypoglycaemia (blood glucose < 40 mg/dl)

1.12 Systolic blood pressure < 80mmHg with cool extremities.

2. Uncomplicated malaria patient group

Patients in this group have *P.falciparum* malaria with none of the criteria for severe malaria above.

3. Healthy group

Healthy volunteers recruit in this group do not have *P.falciparum* malaria.

VITA

Miss Natthida Sriboonvorakul was born on 2nd November 1984 in Bangkok, Thailand. She had graduated a Bachelor's degree of Science in the Chemistry from Chulalongkorn University in 2007. In the same year 2007, she continued her academic education for degree of Doctor of Philosophy program at Department of Chemistry, Faculty of Science, Chulalongkorn University. In 2012, she had academic oral presentation in two international conferences. She has presented her work in the topic "High throughput LC-MS method for quantification of small organic acids in human biological fluids" in 29th Montreux Symposium on LC/MS on 7-9th November 2012 at Montreux, Switzerland and "Liquid Chromatographic-Mass spectrometric method for simultaneous determination of plausible small organic acids biomarkers in biological fluids of patients suffering with metabolic acidosis in severe malaria" in Joint International Tropical Medicine Meeting (JITMM) 2012 on 12-14th December 2012 at Centara Grand & Bangkok Convention Centre, Thailand. In 2013, her first publication in the title "Liquid chromatographic-mass spectrometric method for simultaneous determination of small organic acids potentially contributing to acidosis in severe malaria" had been accepted to publish in Journal of Chromatography B. She had completed the program in December 2013 and received her Doctor of Philosophy degree of Science in Analytical Chemistry in July 2014.