Diagnostic and Management Algorithm of Malaria due to *Plasmodium Falciparum*

**Obtain thick and thin blood smears**

**Is the blood smear positive?**

**YES**

**Evaluate severity of the disease**
- Impaired Consciousness/coma
- Hemoglobin <7 (consider hemoconcentration)
- Renal failure
- Pulmonary edema
- Acute respiratory distress syndrome
- Hypotension
- Disseminated intravascular coagulation

**NO**

**Repeat blood smears X 3 Q 12 or Q24 hours**
- If negative, consider different diagnosis
- If positive, follow algorithm

**Uncomplicated Malaria**

**Determine plasmodium species**

**Plasmodium falciparum or not yet identified species**

**Admit to the hospital**

**Determine region of malaria acquisition**

**Chloroquine sensitive regions**
- Chloroquine
  - Or Hydroxychloroquine

**Chloroquine and/or Mefloquine resistant regions**
- Quinine PLUS doxycycline or clindamycin
  - Or Artemether-lumefantrine

**Non-falciparum species**

**Severe Malaria and/or patient is unable to take oral medication**

- Impaired Consciousness/coma
- Hemoglobin <7 (consider hemoconcentration)
- Renal failure
- Pulmonary edema
- Acute respiratory distress syndrome
- Hypotension
- Disseminated intravascular coagulation

**NO**

**Impaired Consciousness/coma**
**Hemoglobin <7 ( consider hemoconcentration)**
**Renal failure**
**Pulmonary edema**
**Acute respiratory distress syndrome**
**Hypotension**
**Disseminated intravascular coagulation**

**If patient has a positive blood smear or high suspicious for malaria PLUS ≥1 of these symptoms = SEVERE MALARIA**

- Spontaneous bleeding
- Acidosis (severe disease with HCO3 < 15)
- Hemoglobinuria
- Jaundice
- Repeated generalized convulsions
- Parasitemia ≥5%

**Admit to the ICU**

**Repeat blood smears Q 8 hours until parasitic clearance in severe disease and Q 12 hours in mild disease**

**Check CBC, chem, LFTs, LDH every 6 hours for first 12 hours or until clinically stable**

*if IV artesunate is needed, immediately contact the CDC through Montefiore ID pharmacist*

Updated 2019