

CLINICAL GUIDELINE

Malaria Treatment in Adults 18 years and over

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	3
Does this version include changes to clinical advice:	Yes
Date Approved:	21st November 2023
Date of Next Review:	30 th November 2026
Lead Author:	Ysobel Gourlay
Approval Group:	Antimicrobial Utilisation Committee

Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

NHS Greater Glasgow and Clyde recommendations for Treatment of Malaria in Adults ≥ 18 years



Malaria should be suspected in any patient with a fever/ history of fever who has returned from or previously visited a malaria endemic area even if they have taken malaria prophylaxis. It is essential to obtain information on the country and area of travel (including any stop-overs) and details of any malaria prophylaxis regimen (including drug choice, dose, adherence etc.).

Presentation

Symptoms may include; fever/ sweats/ chills, lethargy, malaise, nausea, vomiting, abdominal pain, diarrhoea, myalgia, hepatomegaly and splenomegaly.

Indicators of **severe malaria** include; jaundice, reduced GCS, seizures, acute renal impairment, acidosis, hypoglycaemia (glucose < 2.2 mmol/L), respiratory distress, low haemoglobin (Hb < 80 g/I), haemoglobinuria and parasitaemia > 10 % (although > 2 % may indicate increased risk of developing severe disease).

Investigations

- Malaria blood test via haematology (thick and thin blood smears by microscopy) and Malaria parasites/ antigen test via Trakcare.
- If there is high clinical suspicion of malaria but initial blood films are negative, repeat the malaria blood test after 12 24 hours and again at 48 hours.
- Urea and Electrolytes, Full Blood Count, Blood Glucose, Liver Function Tests and Blood cultures should also be obtained.

Treatment of Malaria (please see flow diagram on next page)

Refer all patients with suspected/ known malaria to the Infectious Disease Team at the Queen Elizabeth University Hospital (contact via switchboard Ext 1000 or 0141 201 1100 or bleep 15295). Recommended drug doses are based on normal renal and hepatic function.

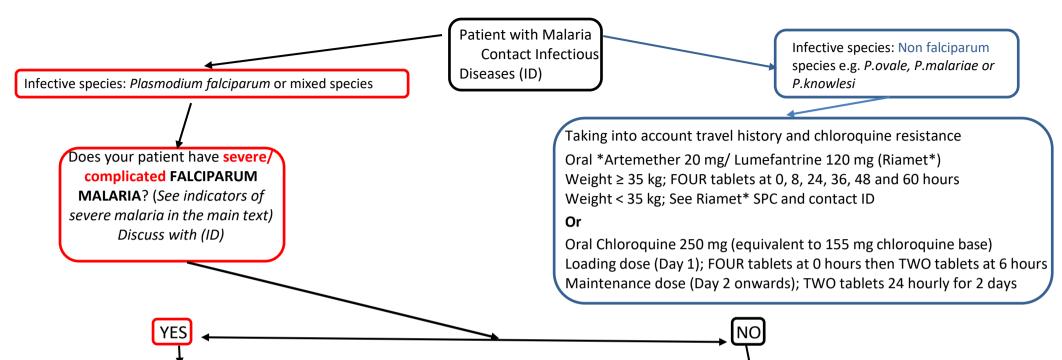
Additional prescribing points (these are not exhaustive; See BNF, Summary of Product Characteristics or contact pharmacy for more information and for additional warnings and cautions):

Riamet*	• Riamet* may prolong the QTc interval. Avoid in patients with other risk factors for QTc prolongation.
	Take Riamet* with food or drinks rich in fat such as full fat milk.
	Riamet* may be used in pregnancy (all trimesters)
	See protocol on HEPMA for prescribing
Chloroquine	Chloroquine may prolong the QTc interval. Use with caution in patients with
	other risk factors for QTc prolongation.
Doxycycline*	Avoid in all trimesters of pregnancy
	• See Cation interactions 1094-oral-tetracycline-and-fluoroquinolone.pdf (scot.nhs.uk)
IV Artesunate	See the Adult Intravenous Medicine Monographs for further information on
and IV Quinine	administration of IV Artesunate and IV Quinine dihydrochloride. (Adult
dihydrochloride	Intravenous Medicine Monographs (sharepoint.com)
	• IV Artesunate and IV Quinine dihydrochloride are unlicensed medicines (ULM).
	Please inform pharmacy and complete an unlicensed medicines eform. (GGC
	Medicines: Non-Formulary Information). These drugs may be obtained out of
	hours from Ward 5C at QEUH and the Emergency Cupboards at QEUH, RAH,
	IRH and GRI via the on-call Pharmacist.

References:

- 1 Lalloo DG et al. UK Malaria Treatment Guidelines 2016. Journal of Infection, 2016; 72: 635 649.
- 2 World Health Organisation. Guidelines for the Treatment of Malaria 2023 WHO-UCN-GMP-2023.01-eng.pdf

NHS Greater Glasgow and Clyde recommendations for Treatment of Malaria in Adults ≥ 18 years



First line

IV Artesunate

Loading dose (Day 1); 2.4 mg/kg at 0, 12 and 24 hours.

Maintenance dose (Day 2 onwards); 2.4 mg/kg 24 hourly.

Switch to oral *Artemether 20 mg/ Lumefantrine 120 mg (Riamet*) after a minimum of 24 hours IV therapy. Complete full oral course.

Second line

IV Quinine hydrochloride (Avoid if on Mefloquine or Quinine prophylaxis) Loading dose; 20 mg/kg (max 1400 mg) as one off single dose.

Maintenance dose (Start 8 hours after loading dose); 10 mg/kg (max 700 mg)

8 hourly for 48 hours THEN 12 hourly. Maximum 5 days therapy.

When able to swallow switch to Oral Quinine sulphate 600 mg 8 hourly PLUS Oral *Doxycycline 200 mg 24 hourly

Or Oral Clindamycin 450 mg 8 hourly

Total duration: All (2nd line) oral drugs: 7 days from when able to swallow

First Line

Oral *Artemether 20 mg/ Lumefantrine 120 mg (Riamet*)

Weight ≥ 35 kg; FOUR tablets at 0, 8, 24, 36, 48 and 60 hours

Weight < 35 kg; See Riamet* SPC and contact ID

Second Line

Oral Atovaquone 250 mg/ Proguanil 100mg (Malarone) FOUR tablets 24 hourly for 3 days

Third line

Either

Oral Quinine sulphate 600 mg 8 hourly

PLUS Oral Doxycycline* 200 mg 24 hourly for 7 days

OR

Oral Quinine sulphate 600 mg 8 hourly

PLUS Oral Clindamycin 450 mg 8 hourly for 7 days