Malaria Prophylaxis PGD

Instructions for Pharmacists

Quick guide for use with Patient Assessment Form - Malaria Prophylaxis (PDF)

Updated August 2012 to include the supply of Lariam - this updated ‘quick guide’ is for use with the updated Patient Information Leaflet and the updated Assessment Form. The current updated and previous versions (doxycycline and Malarone only) are printable from forms and leaflets section.

Patient and GP details

Parents or guardians can complete a ‘Patient Assessment Form’ for children.

1. No confirmation of patient ID is required unless Pharmacists judge this necessary.
2. Pharmacists must be confident only appropriate parents or guardians request treatment for children, following normal pharmacy procedures.
3. Only patients 16 years and over are eligible to request medication by PGD on their own behalf, not children.
4. Where an individual is between 16 and 18 Pharmacists must be confident the patient has capacity to make informed decisions about his/her own health care.
5. Entering a GP name and surgery is optional.
6. Where patients request a copy be sent to their GP, this should be faxed or posted within 3 months.
7. For patients weighing 45kg or less an accurate weight must be obtained.

Sources of information on Malaria Prophylaxis

Pharmacists are required to consult one of the following sources of information for recommended prophylaxis for areas patients plan to visit

1. Current NPA Malaria Prophylaxis Leaflet (requires NPA login)
2. NHS Fit for Travel website (has maps, no login required)

Non Chloroquine-resistant areas

- Where chloroquine, proguanil or proguanil/chloroquine are the recommended drugs, these should be the first choice. Their supply is not covered by PGD. They can be sold 'Over the Counter'.
- Malarone Adult, or Malarone Paediatric, doxycycline or Lariam should NOT be supplied for areas where chloroquine, proguanil or proguanil/chloroquine are recommended unless these medications are contraindicated, or an informed patient, or parent or guardian, requests them.

Advice to patient - choice between Malarone OR Doxycycline OR Lariam

- Doxycycline, Malarone or Lariam are equally effective in preventing malaria (no anti-malaria tablets is 100% effective)
- Lariam is NOT suitable for people who are prone to depression or emotional and/or psychiatric disorders or people with a history of seizure disorders. Lariam is more likely than Malarone or doxycycline to impair motor skills, including the ability to drive. Side effects of Lariam can be prolonged, possibly for months, even after stopping after stopping medication.
- Doxycycline can cause sensitivity to sunlight. People taking it are advised to avoid strong sun, and to use high factor sun creams. Doxycycline is more likely to cause GI side effects such as nausea and indigestion. Doxycycline is an antibiotic and can reduce the effectiveness of oral contraceptive pills.

Dose

- Doxycycline and Malarone tablets are taken once daily, Lariam once weekly.
- Doxycycline and Malarone are started 2-3 days prior to entering a malarious area, Lariam at least one week before (preferably two and half weeks before). Doxycycline and Lariam are continued for 4 weeks after exposure, Malarone for one week after.

Children (duration of supply)
• Malarone can be supplied for children from 11kg upwards (approx 12 months old), Lariam for children from 6kg upwards (approx 3 months old). Doxycycline is not available by PGD to under 16s.
• Doxycycline or Malarone can be supplied to adults for up to 12 weeks use. Malarone can be supplied for persons under 16 years for up to 4 weeks. Doxycycline is not available by PGD to under 16s.
• Lariam can be supplied for adults and children for up to a year.

Travel to multiple countries/areas

Moving from malaria areas to non malaria areas and back again

If a traveller is moving from malaria areas to non malaria areas and back again with breaks in between they should complete their course of antimalarials each time they leave a malaria area. If they return to a malaria area before completing a course they should take prophylaxis continuously.

Moving from non-chloroquine resistant to chloroquine resistant area and vice versa

If a traveller is moving between an area where chloroquine and/or proguanil are effective, and an area of chloroquine and/or proguanil resistance, and there is not enough time to complete the full course of antimalarials before changing areas, then they should be advised to take either doxycycline, Malarone or Lariam for the whole of the trip.

Malarone

Malarone Questions

Exclude supply of Malarone if any question answered ‘Yes’.

Malarone supply is excluded in cases of:

• Allergy to Malarone
• History of renal disease
• Pregnancy (or planning to become pregnant)
• Breast feeding

Interactions for Malarone

Exclude supply of Malarone in combination with the following

• Rifampicin, rifabutin, metoclopramide and tetracycline (reduced level of Malarone, avoid combination)
• Warfarin and other coumarins (possible - increase in INR)
• Indinavir (reduced trough level Indinavir)

How to take Malarone

• Start 1-2 days before trip and continue for 7 days after
• Take with food or milky drink, although can be taken on empty stomach if necessary
• Malarone can be crushed and mixed with food or drinks for children.
• Stop taking if rash or other allergic reaction occurs
• Repeat dose if vomiting occurs within 1 hour

Dose Instruction

Malarone for adults and children over 40kg:

Malarone Adult (atovaquone/proguanil 250mg/100mg), one tablet daily started 1 to 2 days before entering malaria-endemic area and continued for one week after leaving

16 years and over: Maximum of 12 weeks supply (93 tablets)
Under 16 years: Maximum of 28 days supply (37 tablets)

Children and individuals 11kg to 40kg:

11-20kg - Malarone Paediatric (atovaquone/proguanil 62.5mg/25mg), 1 tablets once a day as a single dose, started 1 to 2 days before entering malaria-endemic area and continued for one week after leaving. Maximum 4 weeks supply.

21-30kg – Malarone Paediatric (atovaquone/proguanil 62.5mg/25mg), 2 tablets once a day as a single dose, started 1 to 2 days before entering malaria-endemic area and continued for one week after leaving. Maximum 4 weeks supply.
31–40kg — Malarone Paediatric (atovaquone/proguanil 62.5mg/25mg), 3 tablets once a day as a single dose, started 1 to 2 days before entering malaria-endemic area and continued for one week after leaving. Maximum 4 weeks supply.

Children over 40kg take an adult dose.

**Doxycycline**

**Doxycycline Questions**

Exclude supply of Doxycycline if any question answered ‘Yes’.

Patients are excluded in the case of:

- Allergy to Doxycycline or Tetracycline
- History of acid indigestion
- Liver disease
- Porphyria
- Myasthenia gravis
- SLE
- Pregnancy (or planning to become pregnant)
- Breast feeding

**Interactions for Doxycycline**

Exclude Doxycycline supply in combination with the following:

- Warfarin or other coumarins (INR and dosage monitoring required)
- Penicillin (concomitant use to be avoided, reduced efficacy of penicillin)
- Phenobarbital, carbamazepine, phenytoin or primidone, ciclosporin (significant interaction, Doxycycline may be ineffective, avoid combination)
- Retinoids

**How to take Doxycycline**

- Take one 100mg capsule daily for 1-2 days prior to, during and for 4 weeks after exposure
- Take same time each day
- Take with food or milky drink reduces chance of indigestion
- Women taking contraceptive pill require additional contraception for first 3 weeks of Doxycycline
- Avoid antacids taken within an hour of Doxycycline
- Avoid exposure to strong sun/use high factor sun block
- Avoid taking immediately before bed as lying down increases chances of indigestion
- Stop taking if there is rash
- Repeat dose if vomiting occurs within 1 hour

**Dose Instruction**

Doxycycline: “One 100mg capsule daily started 1 to 2 days before entering malaria-endemic area and continued until 4 weeks after leaving”. Maximum duration 12 weeks (113 caps).

Doxycycline NOT to be supplied to under 16s.

**Lariam**

**Lariam Questions**

Exclude supply of Lariam if any question answered ‘Yes’.

Lariam supply is excluded in the case of:

- Allergy to Lariam (mefloquine) or chloroquine or galactose intolerance
- Women of child bearing age and NOT taking effective contraception
- Current depression or significant anxiety problems
- Previous diagnosed with any of the following:
  - Epilepsy or fits
  - Psychiatric disorders
  - Disturbance of heart rhythm (arrhythmia)
  - Liver disease (not including past minor disorders)
Kidney or renal disease (not including occasion urine infections)

In some cases it may be necessary for Pharmacists to contact doctors to clarify the medical history, particularly where the significance of psychiatric and psychological conditions are in doubt.

Interactions of Lariam

Exclude - Co-administration to be avoided with Halofantrine (malaria treatment), quinine, quinidine and chloroquine.

Caution - Dose adjustment may be required of valproic acid, carbamazepine, phenobarbital or phenytoinIndinavir (reduced trough level Indinavir). Advise patient to consult a doctor before taking Lariam.

Interactions - ECG abnormality are possible with anti-arrhythmic drugs or beta-adrenergic blocking agents, calcium channel blockers, antihistamines or H1-blocking agents, tricyclic antidepressants and phenothiazine. Advise patient to consult a doctor before taking Lariam.

How to take Lariam

- Tablets should be taken once weekly, always on the same day.
- Start taking the tablets at least 1 week (preferably two and a half weeks) before
  entering a malaria area and continued for four week after leaving (minimum of at least 6 weeks).
- Take the tablets throughout stay and for 4 weeks after
- The full course of tablets is at least 6 weeks, depending on length of stay
- Take with food or milky drink, although can be taken on empty stomach if necessary
- Tablet may be crushed and mixed with food such as jam or honey just before administration
- Repeat dose if vomiting occurs within 1 hour

Dose Instruction

Adult and child body-weight over 45kg:

Lariam (mefloquine 250mg), one tablet weekly started at least one week (preferably two and a half weeks) before entering a malaria area and continued for four week after leaving (minimum of at least 6 weeks).

Children and individuals 6-45kg: (Doses below are from the BNF and differ from SPC)

Body-weight 6-16kg, Lariam one quarter of a table (mefloquine 62.5 mg) once weekly started at least one week (preferably two and half weeks) before entering a malaria area and continued for four week after leaving (minimum of at least 6 weeks)

Body-weight 16-25kg, Lariam one half of a table (mefloquine 125 mg) once weekly started at least one week (preferably two and half weeks) before entering a malaria area and continued for four week after leaving (minimum of at least 6 weeks)

Body-weight 25-45kg, Lariam three quarters of a table (mefloquine 187.5 mg) once weekly started at least one week (preferably two and a half weeks) before entering a malaria area and continued for four week after leaving (minimum of at least 6 weeks)

Lariam is not recommended below 3 months. Children over 45 Kg take an adult dose.

Maximum duration of supply of Lariam by PGD is one year for both adults and children.

Restrictions on supply of medication

- ONLY patients in person, or parents or guardians, can complete and sign PGD patient forms, NOT representatives
- ONLY patients in person, or parents or guardians, can be supplied with medication, NOT representatives.
- ONLY Pharmacists with PGD rights can supply medication and sign for its supply, NOT delegates.

Record medication supplied

1. No repeats permitted - new assessment form required for each supply of medication.
2. Pharmacists are free to split packs if they choose.
3. Pharmacists set their own price for supply, payable by patients.
4. Retain form as a record of PGD for 8 years
# Duration of trip and quantities required - Malarone or Doxycycline

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Doxycycline</th>
<th>Malarone Adult</th>
<th>Malarone Paediatric 11-20kg</th>
<th>Malarone Paediatric 21-30kg</th>
<th>Malarone Paediatric 31-40kg</th>
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</thead>
<tbody>
<tr>
<td><strong>When to start</strong></td>
<td>100mg capsules 1 capsule daily</td>
<td>Atovaquone/Proguanil 250mg/100mg 1 tablet daily</td>
<td>Atovaquone/Proguanil 62.5mg/25mg 1 tablet daily</td>
<td>Atovaquone/Proguanil 62.5mg/25mg 2 tablets daily</td>
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<tr>
<td><strong>When to stop</strong></td>
<td>1-2 days before entering malaria area</td>
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<td>1 week</td>
<td>36 capsules</td>
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<td>16 tablets</td>
<td>32 tablets</td>
<td>48 tablets</td>
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<td>43 capsules</td>
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<td>23 tablets</td>
<td>46 tablets</td>
<td>69 tablets</td>
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<tr>
<td>3 weeks</td>
<td>50 capsules</td>
<td>30 tablets</td>
<td>30 tablets</td>
<td>60 tablets</td>
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<tr>
<td>4 weeks</td>
<td>57 capsules</td>
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<td>111 tablets</td>
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<td>64 capsules</td>
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<td>12 weeks</td>
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* Maximum length of Malarone supply by PGD to persons under 16 years is 4 weeks.
## Duration of trip and quantities required - Lariam

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<th>Dosage</th>
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<th>Body-weight 6-16kg</th>
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<td>At least one week (preferably 2 and a half weeks) before entering malaria area</td>
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<td>When to stop</td>
<td>4 weeks after leaving malaria area</td>
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<tr>
<td>12 months</td>
<td>58 tablets</td>
<td>44 tablets*</td>
<td>29 tablets*</td>
<td>15 tablets*</td>
</tr>
</tbody>
</table>

* Does not allow for wastage.

### Links

1. [https://www.pharmacypgd.co.uk/system/assessment-form-malaria.pdf](https://www.pharmacypgd.co.uk/system/assessment-form-malaria.pdf)
2. [https://www.pharmacypgd.co.uk/pharmacist/pgds/2/patient-information-leaflet-malaria](https://www.pharmacypgd.co.uk/pharmacist/pgds/2/patient-information-leaflet-malaria)
3. [https://www.pharmacypgd.co.uk/pharmacist/pgds/2/patient-assessment-form-malaria](https://www.pharmacypgd.co.uk/pharmacist/pgds/2/patient-assessment-form-malaria)
4. [https://www.pharmacypgd.co.uk/pharmacist-forms](https://www.pharmacypgd.co.uk/pharmacist-forms)