

# Information paper: mefloquine and tafenoquine

## **Concerns have been raised about links between the antimalarial medications, mefloquine and tafenoquine, and adverse health effects.**

### ***What is malaria?***

- Malaria is a deadly disease which in 2016 killed over 400,000 people worldwide, and affected more than 200 million people.
- The Australian Defence Force (ADF) has a duty of care to ensure its people deploying to malaria prone areas are protected.

### ***What is mefloquine?***

- Mefloquine (also known by the trade name Lariam) is one of three anti-malarial medications approved by the Therapeutic Goods Administration for malaria prevention in our region. The ADF uses mefloquine as a third line agent and it is only used when members are unable to tolerate the alternatives.
- Mefloquine may not be suitable for individuals with particular medical conditions or those taking some other medications. In particular, mefloquine should not be taken for malaria prevention by people who have, or have had, a psychiatric condition, seizures, kidney disease or liver disease.
- For these reasons, Defence health policy requires ADF members be properly informed of the potential side-effects of mefloquine and the drug may only be prescribed by a qualified medical practitioner after the member has provided their informed consent.
- Mefloquine can cause psychiatric symptoms in some people, including disturbed sleep, anxiety, paranoia, depression, hallucinations and psychosis. Dizziness and loss of balance have also been reported as side effects from the use of mefloquine. For this reason, the medication is not used in ADF aircrew.
- Mefloquine is commonly used in the broader Australian community for the prevention of malaria in travellers. Mefloquine is also included on the World Health Organization List of Essential Medicines for both the prevention and treatment of malaria.

Further information about malaria and anti-malarial medications is available on the ['Malaria, mefloquine and the ADF' website](http://www.defence.gov.au/Health/HealthPortal/Malaria/) (www.defence.gov.au/Health/HealthPortal/Malaria/).

### ***How many people have been given mefloquine?***

- The ADF's use of mefloquine is conservative compared to the use of the medication in other militaries around the world and in the civilian population.
- The vast majority of ADF members have never been prescribed mefloquine.
- Records show that between July 2000 and January 2018, less than 2,000 ADF personnel were prescribed mefloquine. Most of these prescriptions were as part of the ADF trials in East Timor from 2000-2002 (a total of 1,319 soldiers).

- It is far more commonly prescribed across the general community, with an estimated 11,457 civilian prescriptions for mefloquine in 2016 alone.

Statistics are available on the [‘Malaria, mefloquine and the ADF’ website](http://www.defence.gov.au/Health/HealthPortal/Malaria/Anti-malarial_medications/Mefloquine/) (www.defence.gov.au/Health/HealthPortal/Malaria/Anti-malarial\_medications/Mefloquine/).

### ***What is tafenoquine?***

- Tafenoquine is a relatively new anti-malarial medication. Tafenoquine is not related to mefloquine and acts quite differently in the body.
- The main advantage of tafenoquine is that it is effective for both prevention and treatment of malaria.

Further information about malaria and anti-malarial medications is available on the [‘Malaria, mefloquine and the ADF’ website](http://www.defence.gov.au/Health/HealthPortal/Malaria/) (www.defence.gov.au/Health/HealthPortal/Malaria/).

### ***How many people have been given tafenoquine?***

- To date, more than 4,000 people, both military and civilian, have taken tafenoquine in clinical studies around the world. Tafenoquine has successfully treated relapsing malaria (i.e. continued infections long after exposure) when combined with another medication called chloroquine.

### ***What concerns have been raised?***

- Concerns have been raised about the conduct of the ADF trials of mefloquine in East Timor. The Inspector General ADF (IGADF), an independent and impartial statutory authority, examined a number of allegations relating to this matter.
- The IGADF report found that the trials were conducted ethically and in compliance with National Health and Medical Research Council Guidelines for the conduct of human research. It also found that the trials were voluntary and participants were informed about possible side effects. This was consistent with relevant product and consumer medicine information available at the time.
- Concerns have also been raised that taking mefloquine causes chemically-acquired brain injury.

Further information on the ADF mefloquine trials is available on the [‘Malaria, mefloquine and the ADF’ website](http://www.defence.gov.au/Health/HealthPortal/Malaria/AMI_research/) (www.defence.gov.au/Health/HealthPortal/Malaria/AMI\_research/).

## **Statements of Principles**

### ***What are Statements of Principles (SoPs)?***

- Serving and ex-serving ADF members can claim compensation at any time for medical conditions they believe are related to their service.
- For DVA to accept liability for compensation there has to be causal link determined between the person’s service and their medical condition.
- Under the *Veterans’ Entitlements Act 1986* and the *Military Rehabilitation and Compensation Act 2004*, the potential link between a medical condition and service is assessed using SoPs.
- Together, mefloquine and tafenoquine are included as a potential causal factor in SoPs for 16 conditions. Of these, mefloquine is covered by 15 SoPs and tafenoquine is covered by six SoPs.

## What conditions are covered?

Condition	Anti-malarial Medication
1. Anxiety disorder	Mefloquine
2. Bipolar disorder	Mefloquine
3. Depressive disorder	Mefloquine
4. Heart block	Mefloquine
5. Myasthenia gravis	Mefloquine
6. Peripheral neuropathy	Mefloquine
7. Schizophrenia	Mefloquine
8. Suicide and attempted suicide	Mefloquine
9. Trigeminal neuropathy	Mefloquine
10. Epileptic seizure	Mefloquine and Tafenoquine
11. Acquired cataract	Mefloquine and Tafenoquine
12. Sensorineural hearing loss	Mefloquine and Tafenoquine
13. Tinnitus	Mefloquine and Tafenoquine
14. Psoriasis	Mefloquine and Tafenoquine
15. Methaemoglobinaemia	Tafenoquine
16. Toxic Retinopathy	Mefloquine

## What did the Repatriation Medical Authority investigate?

- The RMA investigated whether SoPs may be determined in respect of ‘chemically-acquired brain injury caused by mefloquine, tafenoquine or primaquine.’
- Mefloquine, tafenoquine and primaquine belong to the chemical class of drugs known as quinolines.
- The RMA decided that there is insufficient sound medical scientific evidence that exposure to these pharmaceuticals causes acquired brain injury.
- For these reasons, the RMA decided that it does not propose to make SoPs in relation to chemically-acquired brain injury caused by mefloquine, tafenoquine and primaquine.
- The report can be accessed from the [RMA website](http://www.rma.gov.au/sops/condition/chemically-acquired-brain-injury-caused-by-mefloquine-tafenoquine-or-primaquine) (www.rma.gov.au/sops/condition/chemically-acquired-brain-injury-caused-by-mefloquine-tafenoquine-or-primaquine).
- The Specialist Medical Review Council (SMRC) completed its review of the RMA investigation and it confirmed the RMA’s decision.
- Further information is available on the [SMRC website](http://www.smrc.gov.au) (www.smrc.gov.au).

This decision means that DVA will not be able to accept claims for this specific condition, or the same condition described differently. However, it is important to note that DVA claims staff will still investigate to determine whether another diagnosis may be appropriate and whether it is possible to accept the claim in accordance with that diagnosis.

## What is the Repatriation Medical Authority?

- The Repatriation Medical Authority (RMA) is an independent statutory authority which is entirely separate from the Department of Veterans’ Affairs (DVA).
- The RMA is responsible for determining Statements of Principles (SoPs) for any disease, injury or death that could be related to military service, based on sound medical-scientific evidence.

Further information is available on the [RMA website](http://www.rma.gov.au) (www.rma.gov.au).

## **What is the Specialist Medical Review Council (SMRC)?**

- The SMRC is an independent statutory body responsible to the Australian Government Minister responsible for veterans' affairs.
- On request from an eligible person or organisation, the SMRC can review decisions of the RMA.
- Further information is available on the [SMRC website](http://www.smrc.gov.au) (www.smrc.gov.au).

Information on the SMRC's review process is available in the '[SMRC Members Handbook](http://www.smrc.gov.au/node/5)' (www.smrc.gov.au/node/5).

## **The Government is acting on the health concerns raised**

### **What has been, or is being, done?**

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##### **What has been, or is being, done?**

- **Response to Senate Inquiry Recommendations** - The Government tabled its response to the Senate Inquiry *into the use of quinolone anti-malarial drugs mefloquine and tafenoquine in the ADF* on 15 March 2019. The Government has completed actions in response to eight of the fourteen recommendations, with actions ongoing for the other six recommendations.
- **Mefloquine and Tafenoquine Consultation Forums** – In late 2018, DVA hosted seven mefloquine and tafenoquine consultation forums across Australia for veterans concerned about having taken mefloquine or tafenoquine. A [summary of the key themes](#) of the forums was published on the DVA Website.
- **Neurocognitive Health Program** - Open Arms – Veterans and Families Counselling is implementing a Neurocognitive Health Program (NHP). The NHP will enable Open Arms to deliver an improved service response to veterans and family members, where the veteran has a presentation which may indicate symptoms of a neurocognitive disorder or concerns about neurocognitive decline. The primary focus of the program will be on assessment, prevention and early intervention, ongoing monitoring of cognitive function and pathways to effective treatment and support for veterans and their families and carers.
- **DVA's Improved Client Support Framework** – DVA is dedicated to providing our clients with the right support at the right time to help meet their health and wellbeing needs. Every day we work hard to help resolve issues for clients, and provide a single point-of-contact to help them navigate DVA and external support arrangements. Our improved Client Support Framework provides a coordinated case management and triage service to quickly assess a client's whole situation and create a streamlined pathway to individually tailored supports. This puts veterans at the centre of a coordinated case management approach, to ensure that they and their families are well-supported. DVA can also enact a client wellbeing and support program providing access to an exceptional needs team when additional specialist supports may be required.
- **Fast-tracked claims investigations** – DVA has fast-tracked investigations into claims relating to anti-malarial medications lodged since September 2016.
- **Health assessment from a GP** – DVA is implementing a new initiative for veterans who are concerned about having taken the anti-malarial medications (mefloquine or tafenoquine), to enable them to receive a health assessment from a GP. Veterans will be able to discuss their health concerns with a clinician who has an understanding of mefloquine or tafenoquine, the complex conditions with which some veterans may present, and the veteran experience. While

the initiative is being implemented, veterans can register their interest in attending an appointment by calling DVA's designated phone line -1800 MEFLOQUINE (1800 633 567).

- **1800 MEFLOQUINE** - DVA has a designated phone line for veterans who are concerned about having taken mefloquine and tafenoquine – 1800 MEFLOQUINE (1800 633 567). This support line can assist concerned veterans with enquires about the support available to them and the claims process.
- **Defence's dedicated email address** - Defence has established a [dedicated email address \(adf.malaria@defence.gov.au\)](mailto:adf.malaria@defence.gov.au) and the '[Malaria, mefloquine and the ADF' information portal \(www.defence.gov.au/Health/HealthPortal/Malaria/\)](http://www.defence.gov.au/Health/HealthPortal/Malaria/).

## What support is available?

Topic	Information	(icon)	Website, email address or phone number
<b>1800 MEFLOQUINE</b>	The dedicated support team can help people who were administered anti-malarial medications by the ADF and are concerned about possible side effects. Support may include accessing treatment under non-liability health care arrangements, or lodging a claim for any condition they think was caused by anti-malarial medications.		1800 MEFLOQUINE (1800 633 567)
<b>Open Arms</b>	Current and former members who have served at least one day can access free and confidential, nation-wide counselling and mental health support through Open Arms – Veterans & Families Counselling. Open Arms is also accessible to the families of ADF members.		1800 011 046 (VVCS – 24/7)
			<a href="http://www.openarms.gov.au">www.openarms.gov.au</a>
<b>GP Health Assessment</b>	All former serving personnel can access a one-off comprehensive health assessment from their GP. They can access this health assessment at any stage after leaving the ADF, as there are no time restrictions. A Medicare rebate is available.		<a href="http://www.at-ease.dva.gov.au/veterans/take-action/adf-post-discharge-gp-health-assessment/">www.at-ease.dva.gov.au/veterans/take-action/adf-post-discharge-gp-health-assessment/</a>
<b>All-hours Support Line</b>	A confidential telephone service to help serving ADF members and their families access ADF or civilian mental health services.		1800 628 036 (All-hours support line – 24/7)
<b>1800 IMSICK</b>	Serving personnel can ring 1800 IMSICK if they become ill or injured after hours or they are not in close proximity to an On-Base health facility. 1800 IMSICK is not an emergency number.		1800 467425 (1800 IMSICK – 24/7)
<b>Health Assessment</b>	DVA is implementing a new initiative for veterans who are concerned about having taken the anti-malarial medications (mefloquine or tafenoquine), to enable them to receive a health assessment from a GP.		More information coming soon

## What information is available?

Topic	Information	(icon)	Website, email address or phone number
<b>Anti-malarial medications</b>	'Malaria, mefloquine and the ADF' provides information on malaria, types of anti-malarial medications and their use in the ADF, research and clinical trials.		<a href="http://www.defence.gov.au/Health/HealthPortal/Malaria/">www.defence.gov.au/Health/HealthPortal/Malaria/</a>
	A dedicated email address is available for concerned individuals seeking further information.		<a href="mailto:adf.malaria@defence.gov.au">adf.malaria@defence.gov.au</a>
	The DVA website provides information on anti-malarial medications and support. Handouts, factsheets and PowerPoint presentations from the Townsville Outreach Program are also available.		<a href="http://www.dva.gov.au/mefloquine">www.dva.gov.au/mefloquine</a>
<b>Mental health</b>	DVA's mental health portal, <i>At Ease</i> , provides information and self-help resources to help people recognise the symptoms of poor mental health, manage their wellbeing and build resilience, learn about treatment options, and access professional support. Families can find advice on how to keep their family healthy while caring for someone with a mental health condition, including information on mental health first aid.		<a href="http://www.at-ease.dva.gov.au">www.at-ease.dva.gov.au</a>