



Ministry
of Defence

**Defence Statistics (Health)
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E-mail: DefStrat-Stat-Health-PQ-
FOI@mod.uk

Reference: **FOI2016/03921**

4 May 2016

Dear [REDACTED]

Thank you for your email of 5 April 2016 requesting the following information:

Please forward all documents produced internally under the Statistics and Registrations Act in respect of Mefloquine Hydrochloride

Statistics in respect of its prescribing to service personnel deployed on Operation Gritrock

Statistics in respect of its prescribing on all other deployments and locations globally

Please provide copies of all documents produced internally in respect of Mefloquine Hydrochloride

I am treating your correspondence as a request for information under the Freedom of Information Act 2000 (FOIA).

A search for the information has now been completed within the Ministry of Defence, and I can confirm that information in scope of your request is held. Some of the information falls entirely within the scope of the qualified exemption provided for at section 22 (information intended for future publication) of the FOIA and has been withheld.

Section 22 is a qualified exemption and subject to public interest testing which means that the information requested can only be withheld if the public interest in doing so outweighs the public interest in disclosure.

Section 22(1) has been applied to a report detailing the full findings of an audit of mefloquine use during Operation HERRICK, undertaken earlier this year, as there is an intention to publish the report later this year. The MOD has considered the balance of the public interest and concluded that there is no obligation to publish the full findings earlier than intended.

Section 44(1)(a) has been applied to some of the information you requested as its release is prohibited under the Statistics and Registrations Act. Section 44 is an absolute exemption and there is therefore no requirement to consider the public interest in making a decision to withhold the information.

Section 44(1)(a) has been applied to an Adhoc Statistical Bulletin presenting information on anti-malarial drug prescription and subsequent presentation to MOD Specialist Mental Health

Services. Please see Section 16 Advice and Assistance for further information regarding this publication.

Statistical reports of mefloquine use in the Armed Forces are enclosed. These reports were produced to answer Parliamentary Questions and FOIs and to provide advice to senior officials and Ministers. You will note that some personal information has been redacted from the enclosed documents in accordance with data protection principles.

Under Section 16 Advice and Assistance please see the link below to the published Ad Hoc Statistical Bulletin on the mefloquine hydrochloride prescribing in the UK Armed Forces;

<https://www.gov.uk/government/statistics/mefloquine-hydrochloride-prescribing-in-the-uk-armed-forces-1-april-2007-to-31-march-2015>

A second Adhoc Statistical Bulletin on the prescription of anti-malarial drugs and subsequent presentation to MOD Specialist Mental Health Services will be published on www.gov.uk within the next month and we will contact you to inform you of the release date once this has been agreed.

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Information Rights Compliance team, 2nd Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate your case until the MOD internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website, <http://www.ico.gov.uk>.

I hope this is helpful.

Yours sincerely

Defence Statistics (Health) Head (B1)



Ministry
of Defence

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Reference: 11-10-2013-115302-011

[Redacted]

Date: 4 November 2013

Dear [Redacted]

- Your correspondence dated 10 October 2013 has been considered to be a request for information in accordance with the Freedom of Information Act 2000. You requested the following information:

I would like to request the number of soldiers who have been prescribed Lariam - the anti-malarial drug over the past three years. Please could you break the numbers down into each year?

Please find enclosed the information you requested.

- As at 30 October 2013 there were a total number of **7,779** Army service personnel who had a record of Lariam (Mefloquine Hydrochloride) recorded within their medical record between 2010-2013.
- Table 1** below breaks down these numbers into calendar year. Please note that the sum of each calendar year will not equal the total number of personnel who have a record of Lariam as the same person may appear more than once within the time period.

Table 1: Number of Army Service Personnel¹ who have a record of Lariam (Mefloquine Hydrochloride)² within their medical record, by Calendar Year 2010-2013³.

Calendar Year	Mefloquine Hydrochloride (Lariam)
All ⁴	7,779
2010	2,154
2011	2,187
2012	1,860
2013 ³	2,235

Source: DMICP

¹ Personnel who are registered within DMICP as Army at the time of the prescription.

² As recorded within DMICP

³ Up until 30 October 2013.

⁴ Please note that the total number within all years will not equal the sum of split years as one person may appear in more than one year.

Background Notes:

- Individuals have been identified as patient who has a medical record within DMICP. Soldiers have been identified as any personnel within DMICP who's service at the time of prescription was recorded as Army within their medical record. These patients could have subsequently

changed or left service this therefore means they may no longer be considered Army service personnel.

5. Data on the number of individuals who have been prescribed Lariam (Mefloquine Hydrochloride) has been sourced from DMICP. Please note that if Lariam (Mefloquine Hydrochloride) has been entered as free text only in a patients medical record it will not be included in figures presented as this information is not available in the data warehouse.
6. Lariam is the generic drug name for the drug Mefloquine Hydrochloride. For the purposes of this request, any record that has a recording of either Lariam or Mefloquine Hydrochloride has been defined as Mefloquine Hydrochloride within the tables.
7. These figures represent the number of personnel who have been prescribed Lariam. There can be no assurances provided to confirm whether the individual personnel have actually taken the medication.

I hope this provides the information you require, if you have any further questions please do not hesitate to ask.

Yours Sincerely,

Defence Statistics Health Head Branch

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Information you receive which is not subject to Crown Copyright continues to be protected by the copyright of the person, or organisation, from which the information originated. You must ensure that you gain their permission before reproducing any third party (non Crown Copyright) information

In keeping with the spirit and effect of the Freedom of Information Act, all information is assumed to be releasable to the public unless exempt. The MOD therefore will be simultaneously posting the information you requested, together with any related information that will provide a key to its wider context, in our online FOI Disclosure Log at <http://www.foi.mod.uk>.

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Head of Corporate Information, 2nd Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate your case until the MOD internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website, <http://www.ico.gov.uk>.

LOOSE MINUTE

Defence Statistics (Health)

18 November 2013

SG SecFin-Sec Gp Mailbox (MULTIUSER)

CC

SG ACDS StratPol-MMT Pharmacist

SG ACDS StratPol-Pharm SO1

Contribution to [REDACTED] FOI – Mefloquine Hydrochloride (Lariam) given to serving troops

1. Please see below Defence Statistics' contribution to part two of the [REDACTED] FOI which asked the following question:

'To date, how many doses of Mefloquine have been given to serving troops? Please provide a breakdown of totals by each year.'

Please find enclosed the information you requested.

2. **Table 1** below breaks down these numbers into calendar year.

Table 1: Number of doses of Mefloquine prescribed to Service Personnel¹, by Calendar Year 2010-2013².

Calendar Year	Mefloquine Hydrochloride
2007	2,811
2008	1,745
2009	3,014
2010	3,677
2011	3,248
2012	2,293
2013 ²	3,170

Source: DMICP

¹ As recorded within DMICP

² Up until 13 November 2013.

Background Notes:

3. Data on the number of doses prescribed for Mefloquine Hydrochloride (Lariam) has been sourced from Defence Medical Information Capability Programme (DMICP) electronic data warehouse. In order to identify "doses" records were searched for prescriptions of Mefloquine Hydrochloride.
4. Please note that if Mefloquine Hydrochloride has been entered as free text only in a patients' medical record it will not be included in figures presented as this information is not available in the data warehouse.

5. Service personnel have been identified from DMICP. Records have not been validated against JPA.
6. Lariam is the generic drug name for the drug Mefloquine Hydrochloride. For the purposes of this request, any record that has an entry of either Lariam or Mefloquine Hydrochloride has been defined as Mefloquine Hydrochloride within the tables.
7. Please note that some individuals may have been prescribed Mefloquine Hydrochloride on more than one occasion.
8. There can be no assurances within the medical record provided to confirm whether the individual personnel have actually taken the medication.

I hope this is the information you require, if you have any further questions please do not hesitate to ask.

[REDACTED]
Defence Statistics (Health)
[REDACTED]

LOOSE MINUTE

Defence Statistics (Health)

28 February 2014

SG SecFin-Sec Gp Mailbox (MULTIUSER)

CC

SG ACDS StratPol-MMT Pharmacist

SG ACDS StratPol-Pharm SO1

Contribution to [REDACTED] FOI – Mefloquine Hydrochloride (Lariam) given to serving troops

1. Please see below Defence Statistics' contribution to part two of the [REDACTED] FOI which asked the following question:

'To date, how many doses of Mefloquine have been given to serving troops? Please provide a breakdown of totals by each year.'

Please find enclosed the information you requested.

2. **Table 1** below breaks down these numbers into calendar year.

Table 1: Number of doses of Mefloquine prescribed to Service Personnel¹, by Calendar Year 2007-2013.

Calendar Year	Mefloquine Hydrochloride
2007	2,810
2008	1,746
2009	3,018
2010 ²	3,678
2011	3,247
2012	2,293
2013	3,480

Source: DMICP

¹ As recorded on JPA

² Roll out to "fixed" UK locations complete.

Background Notes:

3. Service personnel includes all personnel with medical record on DMICP in each year, thus will include regulars, reserves and trainees.
4. DMICP roll out began in February 2007. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing. Historical data was uplifted from legacy systems and the completeness of this data is unknown.

5. Data on the number of doses prescribed for Mefloquine Hydrochloride (Lariam) has been sourced from Defence Medical Information Capability Programme (DMICP) electronic data warehouse. In order to identify "doses" records were searched for prescriptions of Mefloquine Hydrochloride.
6. Please note that if Mefloquine Hydrochloride has been entered as free text only in a patients' medical record it will not be included in figures presented as this information is not available in the data warehouse.
7. Lariam is the generic drug name for the drug Mefloquine Hydrochloride. For the purposes of this request, any record that has an entry of either Lariam or Mefloquine Hydrochloride has been defined as Mefloquine Hydrochloride within the tables.
8. Please note that some individuals may have been prescribed Mefloquine Hydrochloride on more than one occasion.
9. There is no assurance from within the medical record to confirm whether the individual personnel have actually taken the medication.

I hope this is the information you require, if you have any further questions please do not hesitate to ask.

[REDACTED]
Defence Statistics (Health)
[REDACTED]

LOOSE MINUTE

D/Defence Statistics (Health)/ 123 / 2

18 November 2014

SG SecFin-Sec2 – [REDACTED]

PQW2014/07153 – Lariam form of mefloquine in each month of 2014 to date

1. Defence Statistics (Health) was asked to provide input in to PQW2014/07153 which asked for the following;

To ask the Secretary of State for Defence, how many service personnel have been prescribed the lariam form of mefloquine in each month of 2014 to date; and if he will make a statement.

2. **Table 1** presents the number of UK Armed Forces personnel, both Regular and Reservist, who have been prescribed Lariam or Mefloquine Hydrochloride in each month of 2014 to date.

Table 1: UK Armed Forces personnel prescribed Lariam (Mefloquine Hydrochloride) 2014, by month and Regular/Reservist status, numbers.¹

	All	Regular	Reservist
All	1,898	1,833	65
January	195	190	5
February	169	163	6
March	310	305	5
April	108	~	~
May	161	~	~
June	295	~	~
July	219	213	6
August	118	98	20
September	149	140	9
October	134	~	~
November ²	40	~	~

Source: DMICP

¹ The tables in this report have been scrutinised to ensure individual identities have not been revealed inadvertently. In line with Defence Statistics' rounding policy for health statistics (May 2009), and in keeping with the Office for National Statistics Guidelines, all numbers less than five have been suppressed and presented as '~'. Where there is only one cell in a row or column that is less than five, the next smallest number (or numbers where there are tied values) has also been suppressed so that numbers cannot simply be derived from totals.

² data up to 18th November 2014

3. Personnel have been counted in every month they were prescribed Lariam (Mefloquine), but have only been counted once per month.

Background notes

4. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.
5. UK Armed Forces personnel include both Regulars and Reservists, trained and untrained personnel. Regular or Reservist status was determined by patient registration type in DMICP.
6. Searches were run for prescriptions of Lariam and Mefloquine Hydrochloride (as Lariam is the only version of Mefloquine Hydrochloride available). Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search.
7. If Reservist personnel have been prescribed Lariam by an NHS GP this will not have been included in these figures.

I hope this is of help.

Regards

[REDACTED]

Defence Statistics (Health)

[REDACTED]

LOOSE MINUTE

D/Defence Statistics (Health)/ 123 / 2

24 November 2014

SG SecFin-Sec2 – [REDACTED]

PQW2014/07153 – LARIAM AND MENTAL HEALTH

1. Defence Statistics (Health) was asked to provide input to PQ HOC 215391 which asked for the following;

To ask the Secretary of State for Defence, how many armed forces personnel have been prescribed Lariam or Mefloquine in each year since 2000; how many such soldiers have reported (a) hallucinations, (b) psychosis and (c) suicidal thoughts; and if he will make a statement. 215391

2. Of the 15,942 UK regular Armed Forces personnel prescribed Lariam between 1 April 2007 and 30 June 2014, **5%** (n=723) subsequently had an initial assessment for a mental health disorder at a MOD DCMH or admission to the MOD in-patient provider. **Seven** had an initial assessment of Psychosis/Bipolar Affective Disorder.

Table 1: UK regular Armed Forces personnel prescribed Lariam¹ (Mefloquine Hydrochloride) 1 April 2007- 30 June 2014, by year², numbers.

	All
All	15,942
2007	1,163
2008	1,523
2009	2,702
2010	3,092
2011	2,764
2012	2,075
2013	3,186
2014 ²	1,197

Source: DMICP

1. As recorded in DMICP, extracted 24th November 2014

2. Data up to 30th June 2014

3. Please note, an individual may have been prescribed Lariam in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

Table 2: UK regular Armed Forces personnel prescribed Lariam¹ (Mefloquine Hydrochloride) who have had a subsequent episode of care for a mental disorder at a MOD DCMH or In-patient provider, 1 April 2007- 30 June 2014, by year², numbers.

	All
All	723
2007	0
2008	24
2009	47
2010	86
2011	118
2012	158
2013	189
2014 ²	101

Source: DMICP and DS Mental Health Database

1. As recorded in DMICP, extracted 24th November 2014

2. Data up to 30th June 2014

3. Please note, an individual may have had more than one episode of care in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

3. Data on prescriptions for Lariam (Mefloquine Hydrochloride) used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. Please note, this is a live system, data was extracted as at 24th November 2014 and thus figures may change.
4. For both data sources, the earliest data available were from 2007. To identify data prior to 2007 would require a search of individual medical records and would incur disproportionate cost.
5. Hallucinations and suicidal thoughts are symptoms which aren't routinely captured as part of mental health initial assessment templates and thus would incur disproportionate cost to locate and search individual medical records.
6. In **Table 1** personnel have been counted once in each year they were prescribed Lariam. As an individual may have been prescribed Lariam in a number of years, the sum of each year may not equal the total number of UK Armed Forces personnel prescribed over the whole period.
7. **Table 2** presents the number of UK regular Armed Forces personnel who have been prescribed Lariam (Mefloquine Hydrochloride) and who were subsequently seen for an initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to a MOD in-patient provider, for a mental health disorder. The data is presented by year of mental health assessment and an individual is counted once per year. For an individual, this may be different to the year in which they were prescribed Lariam.

8. Please note, assessment for a mental health disorder may occur some time after an individual being prescribed Larium. It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Larium.

Background notes

DMICP data

9. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.
10. UK Armed Forces regular personnel include trained and untrained personnel. Regular status was determined by patient registration type in DMICP.
11. Searches were run for prescriptions of Larium and Mefloquine Hydrochloride (as Larium is the only version of Mefloquine Hydrochloride available). Please note if Larium or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.

Mental health data

12. Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Headquarters Surgeon General (HQ SG) and Joint Medical Command (JMC) are striving to minimise the stigma associated with mental illness and foster the appropriate understanding, recognition and presentation for management of these issues in UK Armed Forces personnel. Stigma concerning mental health issues is, however, deeply embedded in both military and civilian populations and it will take time to produce attitudinal cultural change.
13. Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The diagnostic breakdown in this response is based upon initial assessments at DCMH, which may be subject to later amendment.
14. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community

mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

15. The number of episodes of care with an initial assessment of Psychosis or Bipolar Affective Disorder. The following ICD 10 Chapters have been included in this response :

- **F06.0, F06.1, F06.2, F06.30, F06.31 – Other mental disorders due to brain damage and dysfunction and to physical disease**
- **F20 – F29 Schizophrenia, schizotypal and delusional disorders**
- **F31 – Bipolar affective disorder**
- **F32.3 – Severe depressive episode with psychotic symptoms**
- **F33.3 – Recurrent depressive disorder, current episode severe with psychotic symptoms**

I hope this is of help.

Regards

[REDACTED]

Defence Statistics (Health)

[REDACTED]



Ministry
of Defence

Ref: FOI2015/00772

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16/02/2015

Dear [REDACTED],

Thank you for your email of 19 January 2015 requesting the following information:

"The MoD gave a thorough answer on this topic to Mrs Madeleine Moon when she asked a written question in parliament on November 20th 2014 [PQ 215391]

I am requesting that this information be provided for the whole year of 2014: How many UK personnel were prescribed the antimalarial drug mefloquine (Lariam), and how many were thereafter assessed for a mental health condition - whether in a mental health clinic or as an inpatient."

I am treating your correspondence as a request for information under the Freedom of Information Act 2000 (FOIA).

A search for the information has now been completed within the Ministry of Defence, and I can confirm that all the information in scope of your request is held.

Between 01 January 2014 and 31 December 2014 **1,892** UK Regular Armed Forces personnel were prescribed Lariam (Mefloquine Hydrochloride).

Between 01 January 2014 and 31 December 2014 **263** UK Regular Armed Forces personnel had an initial assessment for a mental health disorder at a MOD Department for Community Mental Health (DCMH) or admission to the MOD in-patient provider and were prescribed Lariam prior to their initial assessment.

An assessment for a mental health disorder may occur some time after an individual was prescribed Lariam. As per the PQ response MOD searched for records of Lariam prescriptions since 2007 and identified UK Regular Armed Forces personnel who were subsequently assessed for a mental health disorder in 2014. It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Lariam.

Personnel have been counted once regardless of the number of prescriptions of Lariam they received in 2014. Data on prescriptions for Mefloquine Hydrochloride (Lariam) used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. **Please note, this is a live system, data was extracted as at 10th February 2015 and thus patient figures may change as a result.**

Under Section 16 of the Act (Advice and Assistance) you may find it helpful to note

The numbers provided in the response to PQ 215391 were correct at the time of publishing. We have since improved the methodology used. For completeness the updated information for the same years covered in PQ 215391 are provided below.

Table 1 presents the number of UK Regular Armed Forces personnel who were prescribed Lariam broken down by year. As an individual may have been prescribed Lariam in a number of years, the sum of each year may not equal the total number of UK Armed Forces personnel prescribed over the whole period.

Table 1: UK Regular¹ Armed Forces personnel prescribed Lariam² between 01 April 2007 – 30 December 2014, by year. Number.

Year	Prescribed with Lariam
2007	1,173
2008	1,529
2009	2,724
2010	3,103
2011	2,780
2012	2,082
2013	3,188
2014	1,892
Total	16,473

Source: DMICP, JPA

1. As recorded on JPA^a as at the time of prescription

2. As recorded in DMICP^b, extracted 10 February 2015.

3. From 1 April 2007 to 31 December 2014

4. Please note, an individual may have been prescribed Lariam in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

Table 2 presents the number of UK Regular Armed Forces personnel who have been prescribed Mefloquine Hydrochloride (Lariam) and who were subsequently seen for an initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to a MOD in-patient provider, for a mental health disorder. The data is presented by year of mental health assessment and an individual is counted once per year. As such, the sum of the years may not sum the total amount of personnel assessed with a mental disorder. It should be noted that an individual may have more than one episode of care at a DCMH or have an episode of care at a DCMH as well as be admitted to an in-patient facility.

Table 2: UK Regular¹ Armed Forces personnel prescribed Lariam² who have had a subsequent episode of care for a mental disorder at a MOD DCMH or an In-patient provider, 01 April 2007 – 31 December 2014, by year. Number.

Year	Number with MH Disorder
2007	0
2008	23
2009	50
2010	94
2011	134
2012	189
2013	241
2014	263
Total	994

Source: DMICP, JPA and Defence Statistics Mental Health database.

1. As recorded on JPA as at the time of prescription

2. As recorded in DMICP, extracted on 10 February 2015.

3. Please note, an individual may have had more than one episode of care in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

^a Joint Personnel Administration system

^b Defence Medical Information Capability Programme

UK Regular Armed Forces personnel include trained and untrained personnel. Regular status was determined using JPA as at the time personnel were prescribed Lariam or had an initial assessment.

DMICP data

Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.

Medical data is stored in the DMICP data warehouse using read codes. One ICD10 code maps to one or more read code. The read codes relating to the ICD10 codes as provided by you in your email of 19 January 2015, that were used to search the DMICP data warehouse for military personnel prescribed Lariam (Mefloquine Hydrochloride) were those listed under drug name Mefloquine Hydrochloride and Lariam (as Lariam is the only version of Mefloquine Hydrochloride available).

Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.

The life threatening risks of malaria are extremely serious. The Government therefore has a duty to provide members of our Armed Forces with appropriately tested and effective methods of chemoprophylaxis. The exact choice of drug offered to personnel depends on a number of factors, including the region the individual is deploying to, their health and any past history of side effects.

Mental health data

Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Headquarters Surgeon General (HQ SG) and Joint Medical Command (JMC) are striving to minimise the stigma associated with mental illness and foster the appropriate understanding, recognition and presentation for management of these issues in UK Armed Forces personnel. Stigma concerning mental health issues is, however, deeply embedded in both military and civilian populations and it will take time to produce attitudinal cultural change.

Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The diagnostic breakdown in this response is based upon initial assessments at DCMH, which may be subject to later amendment.

UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

Would you like to be added to our contact list, so that we can inform you about updates to our statistical publications covering mental health and consult you if we are thinking of making changes? You can subscribe to updates by emailing: DefStrat-Stat-Health-PQ-FOI@mod.uk

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Information Rights Compliance team, 1st Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate your case until the MOD internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website, <https://ico.org.uk/>.

Yours sincerely

Defence Statistics (Health)

LOOSE MINUTE

Defence Statistics (Health)

16 April 2015

SG-SecFin-Sec1

Antimalarials at the point of deployment for UK Service personnel currently deployed on Op GRITROCK

1. Defence Statistics Health have been asked to support SG to enable briefing for Min AF. This information includes the malaria chemoprophylaxis recorded at the time of deployment for all UK Armed Forces personnel who have deployed on Op GRITROCK up until 19 February 2015.
2. Defence Statistics (Health) were asked to provide SG-SecFin-Sec1 with the proportion of prescriptions for antimalarial drugs for Op GRITROCK were for Lariam (Mefloquine).
3. As at 19th February 2015, of the **807** antimalarials prescribed prior to deployment for Op GRITROCK, a minimum of **7% (n=54)** were for Lariam. Please note this does not equate to the number of individual personnel as personnel may have been deployed on Op GRITROCK on more than one occasion and therefore been prescribed an antimalarial drug more than once.
4. Please note the numbers prescribed Lariam have been treated as a minimum. For 150 patient records, we can identify that they have been prescribed an antimalarial drug, however we cannot identify the type of drug prescribed as it has not been coded into their electronic patient medical record. This information maybe available within free text and would require a search of each individual medical record.

Background Notes

5. As a proxy to identify whether personnel were prescribed antimalarials for their deployment in Op GRITROCK, Defence Statistics sought advice from PJHQ with regards to how long prior to deployment they would be prescribed the drug. The time between prescription and deployment was indicated between 2 days and 6 weeks prior to deployment. This has been used to establish who has been prescribed antimalarials for their specific deployment. For anyone who does not fall within this time period who has been prescribed antimalarials, they have not been included within the numbers below.

6. **Op GRITROCK:** The current Ebola crisis in West Africa is beyond the capacity of national authorities and NGOs alone. The MOD is assisting the Department for International Development in providing a key component in the UK's response. MOD involvement is enabling direct Western standard medical care for Ebola and non-Ebola (disease and non battle injury) patients, whilst taking the necessary measures to contain a wider outbreak and help keep Britain safe from the disease.
7. Data taken from DMICP has not been validated against individual patient records and so should be regarded as provisional.
8. Data on the number of prescriptions for antimalarial drugs has been sourced from DMICP. Please note that if any antimalarial drugs have been entered as free text only in patients medical record it will not be included in figures presented as this information is not available in the data warehouse.
9. Please note that data on antimalarials relates to if a patient has been prescribed antimalarial, is does not ensure that the patient has taken the drugs.

[REDACTED]
Casualties Team Leader
Defence Statistics (Health)

[REDACTED]

LOOSE MINUTE

Defence Statistics (Health)

17 April 2015

SG ACDS-ACDS Health MA
SG JMC MEDD-DCA PH
SG SecFin-Sec Gp Mailbox
Def Strat-Stat-Health-PQ-FOI
SG ACDS StratPol-DPHU AH PubHlth

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SG-Surg Gen MA
SG JMC MEDD-D
SG DPHC-Hd Delivery
SG ACDS StratPol-Hd
SG JMC MEDD-DCA CDC
SG JMC MEDD-DCA Psych
Def Strat-Stat-Health-Hd
Def Strat-Stat-Health-DepHd
DDC-PR-NewsPolPers CCO
SG SecFin-Sec Asst Hd1
SG SecFin-Corp Comms3a
SG SecFin-Sec1
SG SecFin-Corp Media-Comms Group
Def Strat-Stat-Health-Epi-STL
Def Strat-Stat-Health-MH-TL

Antimalarials prescribed for deployment of UK Service personnel on Op GRITROCK

Reference A: 20150331 Op GRITROCK Lariam_OS (dated 16 April 2015)

1. Defence Statistics Health have been asked to support SG Secretariat briefing for Min AF. This information includes the malaria chemoprophylaxis recorded at the time of deployment for all UK Armed Forces personnel who have deployed on Op GRITROCK up until 25 March 2015.
2. Please note, numbers provided in the loose minute below will not be directly comparable with the numbers provided in Reference A. This is because numbers previously provided considered those personnel prescribed antimalarials prior to deployment. The numbers below include those who have been prescribed antimalarials prior to deployment and whilst on deployment.
3. The data being provided are for the Minister and MOD officials only and must not enter the public domain at this stage. If the data needs to be released more widely,

the mechanism to do this is via a pre-announced ad-hoc statistical release – these are embargoed over the election period unless approved by exception by the National Statistician.

4. 2015 CO Election guidance stated “ad hoc statistical releases should be released only in exceptional circumstances and with the approval of the National Statistician, consulting with the Propriety and Ethics Team in the Cabinet Office where appropriate.
5. Defence Statistics have identified **1,266** Service personnel who have deployed to Op GRITROCK as at 25 March 2015. Of which:
 - **77** Service personnel were prescribed Lariam
 - **1,017** Service personnel were prescribed other antimalarials
 - **96** Service personnel were prescribed an antimalarial but we are unable to identify which antimalarial they were prescribed
 - **103** Service personnel did not have an antimalarial drug recorded or any code recorded to determine they were provided with an antimalarial.
6. **Please note** within each category above an individual patient is counted only once, however the sum of numbers will not equal the total number of people who have deployed on Op GRITROCK. This is because a patient who has been prescribed Lariam and an other antimalarial, for example for two different deployments, will be counted twice in each category (Lariam, other antimalarials).
7. The number of personnel for which we can confirm has been prescribed Lariam should be treated as a minimum as there are some personnel who have been prescribed an antimalarial but the drug name has not been read coded into the patient's medical record.

Background Notes

8. As a proxy to identify whether personnel were prescribed antimalarials for their deployment in Op GRITROCK, Defence Statistics sought advice from PJHQ with regards to how long prior to deployment they would be prescribed the drug. The time between prescription and deployment was indicated between 2 days and 6 weeks prior to deployment. This has been used to establish who has been prescribed antimalarials for their specific deployment. For anyone who hasn't been prescribed an antimalarial prior to deployment (within 42 days) or whilst on deployment, they will not be included in the numbers presented above.
9. **Op GRITROCK:** The current Ebola crisis in West Africa is beyond the capacity of national authorities and NGOs alone. The MOD is assisting the Department for International Development in providing a key component in the UK's response. MOD involvement is enabling direct Western standard medical care for Ebola and

non-Ebola (disease and non battle injury) patients, whilst taking the necessary measures to contain a wider outbreak and help keep Britain safe from the disease.

10. Data taken from DMICP has not been validated against individual patient records and so should be regarded as provisional.
11. Data on the number of prescriptions for antimalarial drugs has been sourced from DMICP. Please note that if any antimalarial drugs have been entered as free text only in patients medical record it will not be included in figures presented as this information is not available in the data warehouse.
12. Please note that data on antimalarials relates to if a patient has been prescribed antimalarial, it does not ensure that the patient has taken the drugs.
13. Deployment data is derived from the JPA 'Move and Track' system which was introduced in April 2007. Due to ongoing validation, some data may be provisional.
14. Personnel identified for Op GRITROCK represents the whole operations for Op GRITROCK and does not represent the number of personnel who have been deployed outside of the UK to a specific region.

[REDACTED]

Casualties Team Leader
Defence Statistics (Health)

[REDACTED]

LOOSE MINUTE

Defence Statistics (Health)

17 April 2015

SG-SecFin-Sec1

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SG SecFin-Corp Media-Comms Group
Def Strat-Stat-Health-Epi-STL

UK Armed Forces personnel prescribed Lariam prior to or whilst on deployment to Afghanistan and subsequently had a psychiatric disorder

Reference A: FOI 2015/02937

1. Defence Statistics (Health) were asked to provide SG-SecFin-Sec1 with the numbers of UK Armed Forces personnel who were prescribed Lariam (Mefloquine) prior to or whilst on deployment to Afghanistan and have since presented with psychiatric conditions. This information will be used to brief Min AF.
2. The data being provided are for the Minister and MOD officials only and must not enter the public domain at this stage. If the data need to be released more widely, the mechanism to do this is via a pre-announced ad-hoc statistical release, these are embargoed over the election period unless approved by exception by the National Statistician.
3. Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will

have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care¹ or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The information used in this response is based upon further referrals to a MOD Department for Community Mental health for an initial assessment or admission to one of the MOD in-patient providers for a mental health disorder.

4. Between 1 April 2007 and 31 December 2014, **510**² UK Armed Forces personnel who were prescribed Lariam prior to or whilst on deployment to Afghanistan (n=128,800 UK Armed Forces personnel deployed to Afghanistan), **7% (n=34)** subsequently had an episode of care for a mental health disorder at a DCMH or admission to an MOD in-patient provider.
5. **Please note**, the assessment for a mental health disorder may occur some time after an individual being prescribed Lariam. It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Lariam. It is also not possible to identify whether personnel have taken or continued to take Lariam after they were prescribed the medication from centrally held data.
6. It is also important to note that of the **510** UK Armed Forces personnel who were prescribed Lariam prior to or whilst on deployment to Afghanistan, **398** UK Armed Forces personnel are currently serving³ and **112** have since left Service. Defence Statistics does not hold information on UK Armed Forces personnel who have left Service and subsequently assessed or admitted for a psychiatric disorder⁴. Therefore the number presented are a minimum.

Background Notes

Deployment data

7. Deployment data is derived from the JPA 'Move and Track' system which was introduced in April 2007. Due to ongoing validation, some data may be provisional.
8. These data will only include personnel who have deployed on Operation to Afghanistan. It will not include personnel who are on exercise or who have been posted to these locations (for example at a British Embassy) as this is not classified as a deployment.

Prescriptions data

¹ This response does not include those assessed with a mental health disorder in primary care and who have not received a specialist referral.

² This figure is different to the total number of prescriptions provided in Table 1 of Reference A as personnel were counted once within each year and the sum of the years will more than the total number of personnel prescribed.

³ As at 1 February 2015 information taken from the Joint Personnel Administrative system.

⁴ Defence Statistics hold information on personnel who have left Service and have claimed compensation with a mental disorder as one if the classed conditions

9. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.
10. Searches were run for prescriptions of Lariam and Mefloquine Hydrochloride (as Lariam is the only version of Mefloquine Hydrochloride available). Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.

Mental health data

11. Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Headquarters Surgeon General (HQ SG) and Joint Medical Command (JMC) are striving to minimise the stigma associated with mental illness and foster the appropriate understanding, recognition and presentation for management of these issues in UK Armed Forces personnel. Stigma concerning mental health issues is, however, deeply embedded in both military and civilian populations and it will take time to produce attitudinal cultural change.
12. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

I hope this information is of use.

██████████
Defence Statistics (Health)
Mental Health Team Leader
██████████

LOOSE MINUTE

Defence Statistics (Health)

22 April 2015

SG DPHC-Hd Delivery

SG-DMed-Med-StratPolPers-Hd

SGJMCMEDD-D

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UK ARMED FORCES PERSONNEL PRESCRIBED MEFLOQUINE HYDROCHLORIDE (LARIAM) SINCE 2007

Reference A: PQHOC215391

Reference B: FOI2015/00772, FOI2015/02937

1. In response to last weeks Ministerial and media interest around the use of Mefloquine Hydrochloride (Lariam) in the UK Armed Forces (see Ref A and Ref B), Defence Statistics (Health) have outlined in this LM additional analysis that we could provide if required.
2. Please note, information already provided as part of Ref A, Ref B, and subsequent Min AF briefings is outlined below:
 - a) Mental health episodes of care at a MOD Department for Community Mental Health (DCMH) or admission to an MOD In-patient provider following their prescription for Mefloquine Hydrochloride (Lariam). (Ref A and B)
 - b) Numbers of UK Armed Forces personnel who were prescribed Lariam (Mefloquine) prior to or whilst on deployment to Afghanistan and have had a subsequent mental health episode of care at a MOD Department for Community Mental Health (DCMH) or admission to an MOD In-patient provider. (Briefing note).
 - c) Numbers of personnel who were prescribed Mefloquine Hydrochloride (Lariam) and subsequently deployed to Africa, Afghanistan, Iraq or Belize. (Ref A and B)
 - d) Numbers of personnel who were prescribed Mefloquine Hydrochloride (Lariam) and subsequently deployed to Sierra Leone (Op GRITROCK). (Briefing note)
 - e) Numbers of personnel who were prescribed Mefloquine Hydrochloride (Lariam) and/or alternative (Doxycycline, Atovaquone/Proguanil (Malarone)) malaria chemoprophylaxis either prior to or during deployment on Op GRITROCK (up until 25 March 2015). (Briefing note)

3. It is important to note that the data provided to date for briefings are for the Minister and MOD officials only and must not enter the public domain at this stage. If the data needs to be released more widely, the mechanism to do this is via a pre-announced ad-hoc statistical release – these are embargoed over the election period unless approved by exception by the National Statistician.
4. Defence Statistics (Health) could provide the following additional information for UK Armed Forces personnel who were prescribed Mefloquine Hydrochloride (Lariam) since 2007¹: Against each analysis outlined there is a grading in brackets which indicates resource required for each task. The grading is as follows:
 - 1 indicates readily available data
 - 2 indicates data not readily available and entails additional work (>3 Working Days)
 - 3 indicates data not readily available and/or longer term planning and analysis required to achieve.
5. Please note that in linking between data sources Defence Statistics (Health) are not attributing causality of the Mefloquine Hydrochloride (Lariam) prescription to any subsequent event:
 - a) Number of personnel who are currently serving and who have exited Service. (1)
 - b) Number of personnel posted overseas, or who have taken part in overseas exercise or training following their prescription for Mefloquine Hydrochloride (Lariam) (2)
 - c) Number of personnel who subsequently had an initial NOTICAS for a deliberate self harm event on and/or at least one entry on DMICP for a DSH event following their prescription for Mefloquine Hydrochloride (Lariam) (1)
 - d) Number of personnel who subsequently had a Suicide or Open Verdict death in Service following their prescription for Mefloquine Hydrochloride (Lariam) (1)
 - e) Number of claims awarded under the Armed Forces Compensation Scheme for mental health conditions following their prescription for Mefloquine Hydrochloride (Lariam) (1)
 - f) Number of personnel who had an episode of care for a mental disorder at a MOD DCMH or admission to an MOD in-patient provider prior to their prescription for Mefloquine Hydrochloride (Lariam), (which could represent a patient safety issue) (1)
 - g) Number of patients who had a Traumatic Brain Injury (TBI) prior prescription of Mefloquine Hydrochloride (Lariam), (which could represent a patient safety issue) (1)

¹ Data extracted from the electronic patient health record centralised data warehouse (DMICP) for the period 1 January 2007 to 31 December 2014. Any prescriptions of Mefloquine Hydrochloride (Lariam) prior to the rollout of DMICP are not included.

- h) Number of patients who had a cardiac condition prior prescription of Mefloquine Hydrochloride (Lariam), (which could represent a patient safety issue) (1)
 - i) Number of personnel prescribed malaria chemoprophylaxis where the name of the drug is not listed within the integrated patient health record (DMICP). This is a known issue with the entry of data for drugs prescribed under Patient Specific Directives, (which could represent a patient safety issue) (1)
 - j) Number of Aircrew and Divers prescribed Mefloquine Hydrochloride (Lariam), (which could represent a patient safety issue)
6. Defence Statistics (Health) could scope and where possible develop analysis on:
- a) Number of personnel with read codes for refusal to take malaria chemoprophylaxis recorded in DMICP (3)
 - b) Number of personnel who have read codes for 'contraindications to anti-malarials' and 'adverse reactions to anti-malarials' recorded prior to their prescription of Mefloquine Hydrochloride (Lariam), as recorded in DMICP. (3)
 - c) Survival analysis on the time from prescription of Mefloquine Hydrochloride (Lariam) to having a mental health episode of care at a MOD DCMH or admission to a MOD in-patient provider. (3)
7. It is also possible to carry out the same analysis as noted above (paragraphs 5 and 6) for prescriptions of other malaria chemoprophylaxis in order to provide comparisons between those prescribed Mefloquine Hydrochloride (Lariam) with those not prescribed it.
8. To ascertain the reasons why Mefloquine Hydrochloride (Lariam) was prescribed to each patient would require individual review of each patient's medical record. Clinician decisions underpinning a prescription are not currently coded so are therefore not available in the DMICP data warehouse for analysis. With Caldicott approval Defence Statistics can provide a list of Service numbers of personnel with prescriptions for Mefloquine Hydrochloride to nominated personnel in SG HQ. For those currently serving we can also supply the name of the medical centre where they are currently registered. For personnel no longer serving, it is possible for a nominated clinician to retrieve the electronic patient record from the archive for review.
9. In terms of future assurance of MOD compliance with policy on prescribing Mefloquine Hydrochloride, Defence Statistics (Health) can work with SME's to ensure DMICP data capture is amended so that data on the reasons for prescribing Mefloquine Hydrochloride (Lariam) and instructions/advice offered to patients are coded.

I hope this is of help

Kind regards

[Redacted]

Defence Statistics (Health)
Epi Senior Team Leader

[Redacted]

LOOSE MINUTE

Defence Statistics (Health)

23 April 2015

SG-DMedPolOpCap-MA
SG JMC MEDD-DCA PH
SG DPHC-Hd Delivery
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SG-DMed-Med-DPHU-DHd
SG SecFin-Sec Asst Hd1

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SG SecFin-Sec Gp Mailbox

Antimalarials prescribed for deployment of UK Service personnel to Afghanistan on Op HERRICK

1. Defence Statistics Health has been asked to support SG Secretariat briefing for Min AF. This information includes the malaria chemoprophylaxis recorded for deployment for all UK Armed Forces personnel who have deployed to Afghanistan on Op HERRICK since 1 April 2007.
2. The data being provided are for the Minister and MOD officials only. It has been agreed with PUS that the Minister may use this information if pressed as part of a Q&A session during his meeting with RUSI. In this case Defence Statistics have permission to release the information as an ad hoc statistical release on the Gov.uk website. Release of any further information is to be considered embargoed over the election period unless approved by exception by the Propriety and Ethics Team in the Cabinet Office and in agreement with PUS.
3. Defence Statistics have identified **125,948** Service personnel who have deployed to Afghanistan on Op HERRICK since 1 April 2007. Of which:
 - a. **57,902** have at least one antimalarial drug recorded
 - b. **12,908** Service personnel were prescribed at least one antimalarial but we are unable to identify which antimalarial drugs they were prescribed
 - c. **68,046** Service personnel did not have any antimalarial drugs recorded or any code recorded to determine whether they were provided with an antimalarial.
4. Of the 57,902 personnel that have an antimalarial drug recorded:
 - a. **536** Service personnel were prescribed Lariam
 - b. **2,554** Service personnel were prescribed Malarone
 - c. **4,095** Service personnel were prescribed Doxycycline

- d. **10,771** Service personnel were prescribed Chloroquine
- e. **10,674** Service personnel were prescribed Proguanil
- f. **32,299** Service personnel were prescribed Chloroquine/Proguanil.

5. **Please note** within each category above an individual patient is counted only once, however the sum of numbers for each drug type will not equal the total number of people who have an antimalarial drug recorded. This is because a patient who has been prescribed, for example, Lariam and Malarone for two different deployments will be counted twice, once in each category (Lariam, Malarone).
6. The number of personnel we can confirm have been prescribed a specified antimalarial drug should be treated as a minimum as there are some personnel who have been prescribed an antimalarial but the drug name has not been read coded into the patient's medical record.

Background Notes

7. Operation HERRICK is the name for UK operations in Afghanistan which started in April 2006. UK Forces are deployed to Afghanistan in support of the UN authorised, NATO led International Security Assistance Force (ISAF) mission.
8. Following guidance from SG Pharmacy Policy area the drug names included within our search included the following:

Drug Grouping	Drug Name
Lariam	Lariam Mefloquine Hydrochloride
Chloroquine	Avloclor Chloroquine Phosphate Nivaquine Chloroquine Sulfate
Proguanil	Paludrine Proguanil Hydrochloride
Chloroquine/Proguanil	Paludrine/Avloclor Chloroquine Phosphate & Proguanil
Malarone	Malarone Proguanil & Atovaquone
Doxycycline	Doxycycline Doxycycline Hyclate Doxycycline Monohydrate

9. As a proxy to identify whether personnel were prescribed antimalarials for their deployment in Afghanistan on Op HERRICK, Defence Statistics sought advice from PJHQ with regards to how long prior to deployment they would be prescribed the drug. The time between prescription and deployment was indicated between 2 days and 6 weeks prior to deployment. This has been used to establish who has been prescribed antimalarials for their specific deployment. For anyone who hasn't been prescribed an antimalarial within 43 days prior to deployment or whilst on deployment, they will not be included in the numbers presented above.

10. Data taken from DMICP has not been validated against individual patient records and so should be regarded as provisional.
11. Data on the number of prescriptions for antimalarial drugs has been sourced from DMICP. Please note that if any antimalarial drugs have been entered as free text only in patients medical record it will not be included in figures presented as this information is not available in the data warehouse.
12. Please note that data on antimalarials relates to if a patient has been prescribed antimalarial, it does not ensure that the patient has taken the drugs.
13. Deployment data is derived from the JPA 'Move and Track' system which was introduced in April 2007. Due to ongoing validation, some data may be provisional.

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Operational Casualties Analyst
Defence Statistics (Health)
[REDACTED]

LOOSE MINUTE

D/Defence Statistics (Health)/ 123 / 2

19 June 2015

SG SecFin-Sec2a

PQ01072015 – UK ARMED FORCES MENTAL HEALTH

1. Defence Statistics (Health) was asked to provide input to PQN2015/01072015 which asked for the following :

\$17062015|1|W|01072015|Baroness Corston||To ask Her Majesty's Government how many (1) serving and (2) former service men and women have required psychiatric treatment after taking Lariam (mefloquine). HL563

2. Defence Statistics (Health) has been asked to provide information on the number of serving personnel who required Psychiatric treatment after taking Mefloquine.

3. Defence Statistics (Health) has provided information below based on UK Regular Armed Forces personnel who were Serving at the time of being prescribed Mefloquine and subsequently seen for an initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to a MOD in-patient provider, for a mental health disorder.

4. Defence Statistics (Health) do not hold data on UK Armed Forces Personnel who have left Service and have sought Psychiatric treatment within the NHS or private practice.

5. An assessment for a mental health disorder may occur some time after an individual being prescribed Mefloquine. **It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Mefloquine.** It is also not possible to identify whether personnel have taken or continued to take Mefloquine after they were prescribed the medication from centrally held data.

6. Between 01 April 2007 and 31 December 2014 **16,473** UK Regular Armed Forces personnel were prescribed Mefloquine. Of these **1,066** (6%) subsequently were assessed as having a mental health disorder at their initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to the MOD in-patient provider up to 31 March 2015.

7. **11,645** (71%) of UK Armed Forces personnel who were prescribed Mefloquine between 01 April 2007 and 31 December 2014, are still Serving as at 1 April 2015.

Background notes

8. Data on prescriptions for Mefloquine used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. Please note, this is a live system, data was extracted as at 10th February 2015 and thus patient figures may change as a result.

9. Please note, an individual may have had more than one episode of care, the data provides the first appointment following Mefloquine prescription.

10. UK Regular Armed Forces personnel include trained and untrained personnel. Regular status was determined using JPA as at the time personnel were prescribed Mefloquine or had an initial assessment.

DMICP data

11. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing. Medical data is stored in the DMICP data warehouse using read codes.

12. Searches were run for prescriptions of Lariam and Mefloquine Hydrochloride (as Lariam is the only version of Mefloquine Hydrochloride available). Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.

Mental health data

13. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

I hope this information is of use.

██████████
Defence Statistics (Health)
Mental Health Team Leader
██████████

LOOSE MINUTE

D/Defence Statistics (Health)/ 123 / 2

19 June 2015

SG SecFin-Sec2a

PQ01072015 – UK ARMED FORCES MENTAL HEALTH

1. Defence Statistics (Health) was asked to provide input to PQN2015/01072015 which asked for the following :

\$17062015|2|W|01072015|Baroness Corston||To ask Her Majesty's Government how many service men and women who were deployed to Afghanistan between 2007 and 2014, and were required to take Larium (mefloquine), subsequently required mental health treatment. HL564

2. Defence Statistics (Health) has been asked to provide information on the number of Service personnel who were deployed to Afghanistan between 2007 and 2014, who were prescribed Mefloquine and subsequently required mental health treatment.
3. Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care¹ or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The information used in this response is based upon referrals to a MOD Department for Community Mental health (DCMH) for an initial assessment or admission to one of the MOD in-patient providers for a mental health disorder.
4. Between 1 April 2007 and 31 December 2014, **536** UK Armed Forces personnel who were prescribed Mefloquine prior to or whilst on deployment to Afghanistan (n=128,800 UK Armed Forces personnel deployed to Afghanistan), **43** (8%) subsequently were assessed as having a mental health disorder at their initial assessment at a MOD DCMH or admission to an MOD in-patient provider up to 31 March 2015.
5. Please note, an assessment for a mental health disorder may occur some time after an individual being prescribed Mefloquine. **It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Mefloquine.** It is also not possible to identify whether personnel have taken or continued to take Mefloquine after they were prescribed the medication from centrally held data.
6. It is also important to note that of the **536** UK Armed Forces personnel who were prescribed Mefloquine prior to or whilst on deployment to Afghanistan, **402** UK Armed Forces personnel are currently serving² and **134** have since left Service as at 1 April 2015. Defence Statistics does not hold information on UK Armed Forces personnel who

¹ This response does not include those assessed with a mental health disorder in primary care and who have not received a specialist referral.

² As at 1 April 2015 information taken from the Joint Personnel Administrative system (JPA).

have left Service and have sought mental health treatment within the NHS or private practice.

Background Notes

Deployment data

7. Deployment data is derived from the JPA 'Move and Track' system which was introduced in April 2007. Due to ongoing validation, some data may be provisional.
8. These data will only include personnel who have deployed on Operation to Afghanistan. It will not include personnel who are on exercise or who have been posted to these locations (for example at a British Embassy) as this is not classified as a deployment.

Prescriptions data

9. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.
10. Searches were run for prescriptions of Lariam and Mefloquine Hydrochloride (as Lariam is the only version of Mefloquine Hydrochloride available). Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.
11. As a proxy to identify whether personnel were prescribed Mefloquine Hydrochloride for their deployment on Operation HERRICK, Defence Statistics sought advice from PJHQ with regards to how long prior to deployment they would be prescribed the drug. The time between prescription and deployment was indicated between 2 days and 6 weeks prior to deployment. This has been used to establish who has been prescribed antimalarials for their specific deployment. Defence Statistics has also included any personnel for whom they have received Mefloquine Hydrochloride whilst on deployment.

Mental health data

12. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

I hope this information is of use.

[REDACTED]
Defence Statistics (Health)
Mental Health Team Leader
[REDACTED]

19 August 2015

SG SecFin-Sec Gp Mailbox

MEFLOQUINE HYDROCHLORIDE PRESCRIPTIONS IN THE UK REGULAR ARMED FORCES

1. This LM on Mefloquine has been produced in order to support the meeting between SG and Ministers as well as the proposed publication of a Q&A style feature in response to recent media interest.
2. This information is provided as OFFICIAL SENSITIVE as some of these numbers have not been previously released into the public domain. This information is not to be published externally until the numbers within the document have been released in an ad hoc statistics publication.
3. Between 01 April 2007 and 31 March 2015, **17,368** UK Armed Forces personnel were prescribed Mefloquine.
4. **Table 1** presents the number of UK Armed Forces personnel who were prescribed Mefloquine broken down by year. Personnel have been counted once each year regardless of the number of prescriptions of Mefloquine they received. Therefore the sum of each year may not equal the total number of UK Armed Forces personnel prescribed over the whole period.

Table 1: UK Armed Forces personnel prescribed Mefloquine¹ between 01 April 2007 – 31 March 2015, by year, Number.

Year	Prescribed with Mefloquine
2007	1,192
2008	1,576
2009	2,803
2010	3,149
2011	2,816
2012	2,108
2013	3,276
2014	1,979
2015 ²	608
Total	17,368

Source: Defence Medical Information Capability Programmes (DMICP)

1. As recorded in DMICP, extracted 18 August 2015.

2. 01 April 2015 to 31 March 2015

3. Please note, an individual may have been prescribed Mefloquine in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

5. Between 01 April 2007 and 31 December 2014, **131,000** UK Armed Forces personnel deployed on Operation HERRICK, of which **544 (0.4%)** were prescribed Mefloquine. Between 01 April 2007 and 31 March 2015 **1,525** UK Armed Forces personnel deployed on Operation GRITROCK, of which **87 (5.7%)** were prescribed Mefloquine.

6. **Table 2** presents the number of UK Armed Forces personnel who were prescribed Mefloquine while on deployment or subsequently deployed, broken down by year. An individual prescribed Mefloquine more than once in a year for different Operations will be counted for each Operation. An individual prescribed Mefloquine more than one in a year for the same Operation will only be counted once in the year, therefore the sum of each year may not equal the total.

Table 2: UK Armed Forces personnel prescribed Mefloquine¹ while on deployment or subsequently deployed² on Operation HERRICK or Operation GRITROCK, between 01 April 2007 – 31 March 2015, by year, number³.

Year	UK Service Personnel prescribed Mefloquine ^{1,3} , deployed on	
	Op Gritrock	Op Herrick
2007		41
2008		41
2009		83
2010		77
2011		90
2012		117
2013		214
2014 ^{4,5}	73	42
2015 ⁶	16	
Total	87	544

Source: DMICP, JPA

1. Prescribed Mefloquine whilst deployed on operations or within 43 days before being deployed. As recorded on DMICP, extracted 18 August 2015
2. As recorded on JPA Move and Track 01 July 2015
3. Please note, an individual may have been prescribed Mefloquine in more than one year and therefore the sum of each year and may not equal the total number of individuals prescribed over the whole period.
4. Op GRITROCK started on 15 September 2014
5. Op HERRICK ended on 31 December 2014.
6. 01 January 2015 to 31 March 2015

7. The life threatening risks of malaria are extremely serious. The Government therefore has a duty to provide members of our Armed Forces with appropriately tested and effective methods of chemoprophylaxis. The exact choice of drug offered to personnel depends on a number of factors, including the region the individual is deploying to, their health and any past history of side effects.

Background Notes

8. UK Armed Forces personnel include trained and untrained personnel, Regulars and Reserves.

DMICP data

9. Data on prescriptions for Mefloquine used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. **Please note, this is a live system, data was extracted as at 18 August 2015 and thus patient figures may change as a result.**
10. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.

11. The DMICP data warehouse was searched for military personnel prescribed Mefloquine Hydrochloride, specifically were those listed under drug name Mefloquine Hydrochloride and Lariam (as Lariam is the only version of Mefloquine Hydrochloride available).
12. Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. Therefore these numbers should be treated as a **minimum**.

Deployment data

13. Data on deployment was derived from the JPA 'Move and Track' system which was introduced in April 2007. Due to on-going validation, some data may be provisional.
14. Personnel prescribed Mefloquine for a deployment were identified if they were prescribed the drug either up to 43 days prior to deployment or whilst on deployment.

██████████
Operational Casualties Team Leader
██████████

21 August 2015

SG SecFin-Sec Gp Mailbox

MEFLOQUINE HYDROCHLORIDE PRESCRIPTIONS IN THE UK ARMED FORCES

1. This LM on Mefloquine has been produced in order to support the meeting between SG and Ministers as well as the proposed publication of a Q&A style feature in response to recent media interest.
2. This information is provided as OFFICIAL SENSITIVE as some of these numbers have not been previously released into the public domain. This information is not to be published externally until the numbers within the document have been released in an ad hoc statistics publication.
3. Between 01 April 2007 and 31 March 2015 **17,368** UK Armed Forces personnel were prescribed Mefloquine. Of which, **1,070** were subsequently assessed as having a mental health disorder at MOD Specialist Mental Health Services.
4. An assessment for a mental health disorder may occur sometime after an individual was prescribed Mefloquine. The MOD searched for records of Mefloquine prescriptions since 2007 and identified UK Armed Forces personnel who were subsequently assessed with a mental health disorder; only the first subsequent episode of care has been counted. It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Mefloquine.
5. **Table 1** presents the number of UK Armed Forces personnel who were prescribed Mefloquine broken down by year. Personnel have been counted once each year regardless of the number of prescriptions of Mefloquine they received. Therefore the sum of each year may not equal the total number of UK Armed Forces personnel prescribed over the whole period.

Table 1: UK Armed Forces personnel prescribed Mefloquine¹ between 01 April 2007 – 31 March 2015, by year, Number.

Year	Prescribed with Mefloquine
2007	1,192
2008	1,576
2009	2,803
2010	3,149
2011	2,816
2012	2,108
2013	3,276
2014	1,979
2015 ²	608
Total	17,368

Source: DMICP

1. As recorded in DMICP^a, extracted 18 August 2015.

2. 01 January 2015 to 31 March 2015

3. Please note, an individual may have been prescribed Mefloquine in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

6. **Table 2** presents the number of UK Armed Forces personnel who have been prescribed Mefloquine Hydrochloride and who were subsequently been assessed at MOD Specialist Mental Health Services, with a mental health disorder. The data is presented by the year in which the first mental health assessment took place following being prescribed Mefloquine.

Table 2: UK Armed Forces personnel prescribed Mefloquine¹ who have had a subsequent episode of care for a mental disorder at a MOD Specialist Mental Health Services⁴, 01 April 2007 – 31 March 2015, by year³, Number.

Year	Number with Mental Health Disorder
2007	0
2008	25
2009	50
2010	93
2011	136
2012	189
2013	240
2014	264
2015 ²	73
Total	1,070

Source: DMICP and Defence Statistics Mental Health database.

1. As recorded in DMICP, extracted on 18 August 2015.

2. 01 January 2015 to 31 March 2015

3. Year assessed with a mental disorder

4. Departments of Community Mental Health (DCMH) for outpatient care, and all admissions to the MOD's in-patient care contractor

5. Please note, an individual may have had more than one episode of care in more than one year however they have been only counted once within the first year following being prescribed Mefloquine.

7. The life threatening risks of malaria are extremely serious. The Government therefore has a duty to provide members of our Armed Forces with appropriately tested and effective methods of chemoprophylaxis. The exact choice of drug offered to personnel depends on a number of factors, including the region the individual is deploying to, their health and any past history of side effects.

Background Notes

8. UK Armed Forces personnel include trained and untrained personnel, Regulars and Reserves.

DMICP data

9. Data on prescriptions for Mefloquine used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. **Please note, this is a live system, data was extracted as at 18 August 2015 and thus patient figures may change as a result.**
10. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing.
11. The DMICP data warehouse was searched for military personnel prescribed Mefloquinine Hydrochloride, specifically were those listed under drug name Mefloquine Hydrochloride and Lariam (as Lariam is the only version of Mefloquine Hydrochloride available).

12. Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. Therefore these numbers should be treated as a **minimum**.

Mental health data

13. Data on episodes of care for a mental health disorder were derived from DCMH monthly returns, DMICP and in patient records. See [Background Quality Report](#) for more information
14. Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Headquarters Surgeon General (HQ SG) and Joint Medical Command (JMC) are striving to minimise the stigma associated with mental illness and foster the appropriate understanding, recognition and presentation for management of these issues in UK Armed Forces personnel. Stigma concerning mental health issues is, however, deeply embedded in both military and civilian populations and it will take time to produce attitudinal cultural change.
15. Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The diagnostic breakdown in this response is based upon initial assessments at DCMH, which may be subject to later amendment.
16. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

██████████
Mental Health Team Leader
██████████

9 September 2015

SG SecFin-Sec2 [REDACTED]

Copy
Def Strat-Stat-ChiefStatistician [REDACTED]

MEFLOQUINE HYDROCHLORIDE PRESCRIPTIONS IN THE UK REGULAR ARMED FORCES

1. This LM on Mefloquine has been produced in order to support Min (AF)'s office in response to the Radio 4 piece on Mefloquine this morning. Defence Statistics have been requested to provide the total number of personnel prescribed Mefloquine for the latest period figures available.
2. This information is provided as OFFICIAL SENSITIVE as some of these numbers have not been previously released into the public domain. This information is not to be published externally until the numbers within the document have been released in an ad hoc statistics publication.
3. Between 01 April 2007 and 09 September 2015, **17,858** UK Armed Forces personnel were prescribed Mefloquine.
4. It is only possible to identify the number of personnel who have been prescribed Mefloquine, NOT 'the number of Service personnel taking Mefloquine today', as requested by Min AF office.
5. **Table 1** presents the number of UK Armed Forces personnel who were prescribed Mefloquine broken down by year. Personnel have been counted once each year regardless of the number of prescriptions of Mefloquine they received. Therefore the sum of each year may not equal the total number of UK Armed Forces personnel prescribed over the whole period.

Table 1: UK Armed Forces personnel prescribed Mefloquine¹ 1 April 2007 – 6 September 2015, by year, Numbers.

Year	Prescribed with Mefloquine
Total	17,858
2007	1,192
2008	1,576
2009	2,803
2010	3,149
2011	2,816
2012	2,108
2013	3,276
2014	1,979
2015 ²	1,164

Source: Defence Medical Information Capability Programmes (DMICP)

1. As recorded in DMICP, extracted 09 September 2015. Please see Background Note 6.

2. 01 April 2015 to 06 September 2015

3. Please note, an individual may have been prescribed Mefloquine in more than one year and therefore the sum of each year may not equal the total number of individuals prescribed over the whole period.

Background Notes

6. UK Armed Forces personnel include trained and untrained personnel, Regulars and Reserves.

DMICP data

7. Data on prescriptions for Mefloquine used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. **Please note, this is a live system, data for 2015 was extracted as at 09 September 2015 and thus patient figures may change as a result.** Please note data between 01 April 2007 and 31 December 2014 aligns with previously provided data.
8. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing. Please note, roll out of DMICP for Reservists was incomplete prior to 2012 therefore number of Reservist personnel prescribed Mefloquine should be treated as a minimum.
9. The DMICP data warehouse was searched for military personnel prescribed Mefloquine Hydrochloride, specifically were those listed under drug name Mefloquine Hydrochloride and Lariam (as Lariam is the only version of Mefloquine Hydrochloride available).
10. Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. Therefore these numbers should be treated as a **minimum**.

██████████
Operational Casualties Team Leader
██████████

LOOSE MINUTE

D/Defence Statistics (Health)/ 123 / 2

28 January 2016

SG SecFin-Sec2

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PQ29012016 – UK ARMED FORCES MEFLOQUININE AND MENTAL HEALTH

1. Defence Statistics (Health) was asked to provide input to PQ29012016 which asked for the following :

\$27012016|13|W|29012016|Mr Kevan Jones|North Durham|To ask the Secretary of State for Defence, how many armed forces personnel who have taken Mefloquine have been treated for psychiatric problems in the last 12 months. 24460

2. Defence Statistics (Health) has been asked to provide information on the number of UK Armed Forces personnel who have taken Mefloquine and treated for psychiatric problems in the last 12 months.

3. An assessment for a mental health disorder may occur some time after an individual being prescribed Mefloquine. **It is not possible from centrally held data to identify whether a mental health episode is associated with being prescribed Mefloquine.** It is also **not possible to identify whether personnel have taken or continued** to take Mefloquine after they were prescribed the medication from centrally held data.

4. Defence Statistics (Health) has provided information below based on UK Regular Armed Forces personnel who were prescribed Mefloquine and subsequently seen for an initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to a MOD in-patient provider between 1 October 2014 and 30 September 2015 (latest date for which information is available).

5. Between 01 April 2007 and 30 September 2015 a minimum of **17,623** UK Regular Armed Forces personnel were prescribed Mefloquine. Of these a minimum of **354** (2%) subsequently were assessed as having a mental health disorder at their initial assessment at a MOD Department for Community Mental Health (DCMH) or admission to the MOD in-patient provider between 1 October 2014 and 30 September 2015 (latest date for which information is available).

6. The number of prescriptions presented should be treated as minimum for the following reasons:

- UK Armed Forces personnel who leave the Armed Forces and subsequently register at a MOD medical centre as a civilian were not included in the numbers presented.
- It is possible that UK Armed Forces personnel were prescribed Mefloquine prior to their medical record being held in DMICP, therefore these records were not available centrally.
- If Mefloquine prescriptions were recorded as free text only in the patient medical record they have not been included in the data.
- It may also have been possible to prescribe Mefloquine to UK Armed Forces personnel through a Patient Specific Direction. In these cases the name of the drug prescribed was not recorded in the data warehouse therefore these have not been included in the data.
- In addition if Mefloquine was prescribed by the NHS it has not been included in the numbers presented.
- The data on Mefloquine presented is based on personnel who have been prescribed the drug; it does not ensure the individual has taken the drug.

Background notes

7. Data on prescriptions for Mefloquine used in this response were derived from the integrated primary health record (iHR) within the Defence Medical Information Capability Program (DMICP) data warehouse. Please note, this is a live system, latest data was extracted as at 28 January 2016 and thus patient figures may change as a result.

8. Please note, an individual may have had more than one episode of care, the data provides the first appointment following Mefloquine prescription.

9. UK Regular Armed Forces personnel include trained and untrained personnel. Regular status was determined using JPA as at the time personnel were prescribed Mefloquine or had an initial assessment.

Information on other anti-malarials

10. Between 01 April 2007 and 31 December 2014, 16,473 UK Regular Armed Forces personnel were prescribed Mefloquine Hydrochloride and 95,858 UK Regular Armed Forces personnel were prescribed a different anti-malarial drug. Of these :

- **6.0% (n=994)** of those prescribed Mefloquine Hydrochloride subsequently had an initial assessment for a mental health disorder at a MOD Specialist Mental Health Services up to 31 December 2014.
- **6.7% (n=6,456)** of those prescribed other anti-malarials subsequently had an initial assessment for a mental health disorder at a MOD Specialist Mental Health Services up to 31 December 2014.

11. There was no difference in the distribution of time between the date of first prescription of an anti-malarial drug and the date of initial assessment for a mental disorder at MOD Specialist Mental Health Services between Mefloquine Hydrochloride and other anti-malarial drugs.

DMICP data

12. Data are compiled by Defence Statistics (Health) from the Defence Medical Information Capability Programme (DMICP) data warehouse. The DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse. Prior to this data

warehouse, medical records were kept locally, at each individual medical centre. By 2010, DMICP was in place for the UK and the majority of Germany. Rollout to other overseas locations commenced in November 2011 and is ongoing. Medical data is stored in the DMICP data warehouse using read codes.

13. Searches were run for prescriptions of Lariam and Mefloquine Hydrochloride (as Lariam is the only version of Mefloquine Hydrochloride available). Please note if Lariam or Mefloquine prescriptions are recorded as free text only in the patient medical record they will not be included in the above search. DMICP is also a live record system and data presented may vary from figures previously released.

Mental health data

14. UK Armed Forces personnel have access to specialist mental health services, by referrals made by their GP, provided through MOD DCMH or MOD In-patient providers. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at MOD sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation trust (SSSFT). UK based Service personnel from British Forces Germany (BFG) were treated at Guys and St Thomas Hospital in the UK up until April 2013 and from this date, at Gilead IV hospital, Bielefeld, under a contract with Soldiers, Sailors and Airmen Family Association (SSAFA) through the Limited Liability Partnership.

I hope this information is of use.

██████████
Defence Statistics (Health)
Mental Health Team Leader
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