



Ministry of Defence

Background Quality Report Quarterly Afghanistan UK Patient Treatment Statistics

The purpose of a background quality report is to inform users of statistics about the quality of the data used to produce the publication, and any statistics derived from that data. Existing uses of the statistics and user requirements are also discussed.

This assessment relates to the Quarterly Afghanistan UK Patient Treatment Statistics published on published by Defence Statistics (Health). This can be found at:
<https://www.gov.uk/government/publications/mod-national-and-official-statistics-by-topic>.

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1. Introduction

1.1 Overview

The report provides statistical information on UK Armed Forces and Civilian personnel returned to the UK from Op HERRICK or Op TORAL as a result of an injury or illness who have been treated at the Royal Centre for Defence Medicine (RCDM) and/or the Defence Medical Rehabilitation Centre (DMRC) Headley Court, from 8 October 2007 onwards.

1.2 Background and Context

The bulletin is provided in response to a number of requests for information about the number of UK Service Personnel injured on Op HERRICK or Op TORAL that are subsequently receiving treatment in hospital at RCDM or receiving rehabilitation at DMRC. This does not include UK Service Personnel injured on Op VERITAS. Publishing this information quarterly provides accurate and timely information to interested parties.

1.3 Methodology and Production

1.3.1 Data Sources

Defence Patient Tracking System (DPTS)

The DPTS is not a medical or welfare record system; medical records are held on the Defence Medical Information Capability Programme (DMICP); welfare records are held in single Service welfare databases. The DPTS is not an authoritative record of personnel and demographic details, these details are held on Joint Personnel Administration system.

The DPTS commenced on 8 October 2007 and was set up to enable the capture of tracking data for aeromedically evacuated patients at the place where healthcare is being delivered along the care pathway. Patients receiving treatment that were aeromedically evacuated prior to this date may not be included. Since October 2008, the figures presented include Armed Forces personnel that have returned on routine flights and subsequently been referred to DMRC for an operational-related injury or illness.

Defence Health Database (DHD)

Data held on the DHD comes from four separate sources: Field Hospital Admissions from J97 Returns and Operational Emergency Attendance Register (OpEDAR), Notification of Casualty (NOTICAS), Aeromedical Evacuation and Joint Theatre Trauma Registry (JTTR). They all hold information regarding the injury class of the patient, with the exception of the Aeromedical Evacuation notes which contain diagnosis codes that are utilised to determine an injury class. If there is a discrepancy in the injury class recorded between any of the four data sources, a manual examination of the narrative data for each source is made, and a qualitative assessment of the correct classification of an injury or illness is conducted against the injury class criteria outlined above. If there is insufficient information from these four data sources to identify an injury class, Defence Statistics (Health) contact the Academic Department of Military Emergency Medicine (ADMED) for further JTTR information, the Joint Casualty and Compassionate Centre (JCCC) for further NOTICAS information, the Permanent Joint Headquarters (PJHQ) for further Field Hospital Admission information and the Aeromedical Evacuation Control Centre (AECC) for further Aeromedical Evacuation information.

A more detailed description of each of the four data sources held on the DHD can be found in the section below:

Field Hospital Admissions from J97 Returns and OpEDAR

The UK had a Field Hospital at Camp Bastion, that provided deployed hospital care to coalition forces and, when indicated, Afghan National Security Forces and local nationals. Associated support elements included Emergency Medicine, Surgery, Medicine, Intensive Care Unit, and Medium and Low dependency nursing care beds. Advanced diagnostic support was provided by a laboratory and an imaging department that includes two CT Scanners.

Defence Statistics received information on the patients who were admitted to or attended the UK Field Hospital at Camp Bastion from the J97 Returns. The J97 return also included those patients admitted to the following two locations:

- The HQ of Multinational Brigade (South) in Kandahar maintained a Field Hospital which provides support for International Security Assistance Force (ISAF) and Coalition personnel. This facility includes additional capabilities to that of the Role 2 including specialist diagnostic resources and

specialist surgical and medical capabilities. (Information on Role 1,2,3 or 4 medical support can be found here: <http://www.nato.int/docu/logi-en/1997/lo-1610.htm>)

- In Kabul, UK Personnel may be admitted to either the French or Greek Field Hospital. There is also a US facility which provides physiotherapy and dentistry.

Up until 31 December 2011, Defence Statistics also received information on admissions and attendances at the UK Field Hospital at Camp Bastion from the OpEDAR. This register was replaced with a new IT system; Whole Hospital Information System (WHIS). Defence Statistics received an extract from WHIS that was used from 1 January 2012 onwards.

An admission to the field hospital is where a patient is allocated a bed; this could be within the Ward, in Intensive Care, or Surgery. If the patient is not allocated a bed they are recorded as an attendance, they are seen and treated without the need to allocate a bed.

Field Hospital Admissions from J97 Returns and OpEDAR, information is available from 1 March 2006 (Opening of the UK Field Hospital in Afghanistan) until 22 September 2014 when the field hospital closed.

Notification of Casualty (NOTICAS)

NOTICAS is the name for the formalised system of reporting casualties within the UK Armed Forces. The NOTICAS reports raised for casualties contain information on how seriously medical staff in theatre judge their condition to be. They are not strictly medical categories but are designed to give an indication of the severity of the injury or illness to inform what the individual's next of kin are told.

The NOTICAS system is initiated very early in the patient's admission to the field hospital in Afghanistan, the classification of a casualty will change as time progresses. The initial signal listing may in some cases be followed by an updated less serious listing if the case appeared worse on admission than transpires.

Initial NOTICAS, information is available from 7 October 2001 (start of Operations in Afghanistan).

Aeromedical Evacuation

Aeromedical Evacuation is the medically supervised movement of patients to and between medical facilities by air transportation. The RAF Aeromedical Evacuation Service provides the worldwide patient air movement capability for Defence 24 hours a day, 365 days a year. Patients are risk assessed prior to flight, and when necessary, trained medical teams are provided to deliver care in the air.

Defence Statistics receive Aeromedical evacuation records fortnightly from the Aeromedical Evacuation Control Centre (AECC) at RAF Brize Norton for operations in Afghanistan.

Aeromedical Evacuations, information is available from 1 January 2003. Information on Aeromedical Evacuations from 7 October 2001 to 31 December 2002 is not held electronically.

Joint Theatre Trauma Registry (JTTR)

The JTTR commenced during 2003 to improve the care of the seriously injured patient from the point of injury to the point of discharge from hospital treatment (both in Afghanistan and UK). The JTTR records patient level clinical information on trauma patients admitted to a field hospital in Afghanistan where the UK Trauma Team was activated.

1.3.2 Pseudo-Anonymisation

Prior to analysis data sources were linked using a pseudo-anonymisation process. The individual identifiers were stripped from datasets and replaced by a pseudo-anonymiser, generated by an automated sequential numbering system. The key to the system is that it recognises previous occurrences of a given Service number and allocates the same pseudo-anonymiser on each occasion. The pseudo-anonymisation process can only be reversed in exceptional circumstances controlled by the Caldicott Guardian under strict protocols.

1.3.3 Statistical Analysis

Data is extracted from the DPTS and then used to generate the tables and graphs included in the report.

1.4 Contact Details

The Deputy Head of Defence Statistics (Health) Veterans is the Responsible Statistician for this Official Statistic:

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2. Relevance

2.1 Coverage

The report is used to inform internal and external stakeholders of the number of personnel treated at RCDM and DMRC for injuries or illnesses sustained on Operations in Afghanistan. This included Regular Naval Service personnel, Army personnel including those from the Gibraltar Regiment, RAF personnel, Reservists and UK Civilians but excluded Other Nations Service personnel.

It is thought that this information may be of use in predicting the number of casualties that would be sustained if the UK Armed Forces entered a conflict with similar operational parameters in the future, and the burden this would add to Armed Forces healthcare.

The report **does not** include information on the care provided at RCDM or DMRC between 7 October 2001 (start of Operations in Afghanistan) and 7 October 2007. This is because this time period predates the set-up of the Defence Patient Tracking System (DPTS) on 8 October 2007. The DPTS was set up to monitor the progress of Armed Forces patients undergoing specialist treatment, to ensure that their care is delivered promptly and coherently, and to coordinate clinical, administrative and welfare aspects of their support. The DPTS was set up as previously this information was not stored centrally and could only be accessed through individual medical records.

2.2 User Needs

The report is provided in response to a number of requests for information about the number of UK Service Personnel injured on Op HERRICK or Op TORAL that are subsequently receiving treatment in hospital at RCDM or receiving rehabilitation at DMRC.

The principal customers for the Afghanistan UK Patient Treatment Statistics include:

Royal Centre for Defence Medicine
Defence Medical Rehabilitation Centre
Directorate of Defence Rehabilitation
Surgeon Generals' Department
Armed Forces Occupational Health
Department of Health
External Organisations concerned with ex-serviceman welfare (including charitable organisation e.g. Help for Heroes)
Academic Researchers
Journalists

The report has an accompanying ministerial submission.

3. Accuracy

The report uses a variety of different data sources, each of which has different properties which affect the difference between published and true values.

Validating Injury Class

In order to validate the injury class of a patient (Battle Injury (BI), Non Battle Injury (NBI) or Natural Cause (NC)), Defence Statistics (Health) compare the data captured on the Defence Patient Tracking System (DPTS) to information stored on the Defence Health Database (DHD). Patient care pathways

held on the DPTS are linked to DHD events using a personal identifier (pseudo-anonymised) and date of injury. All automatic links between DPTS care pathways and DHD events are manually validated and DHD events that are not linked to a care pathway but are attributed to an individual with at least one care pathway are checked to ensure that no linkage should occur. If there is a discrepancy between the information stored on the DHD and the DPTS, a qualitative assessment of the data is made by analysts based on the narrative contents of both data sources. If there is insufficient information available in the DHD and DPTS to identify an injury class, Defence Statistics (Health) contact the Defence Patient Tracking Cell (DPTC) for further clarification on the incident. The injury class assessments are made according to the criteria outlined below:

Battle Injury (BI)

Any injury sustained whilst under direct and indirect fire is referred to as BI. Whilst this is frequently applied to injuries such as gunshot and fragmentation wounds, it is also applied to injuries sustained whilst avoiding hostile fire and friendly fire.

Non-Battle Injury (NBI)

Any injury sustained as a result of external causes not as a result of direct or indirect fire is referred to as NBI. This includes:

- i. Injuries caused by sports and other external factors (e.g. training, normal duties and negligent discharge of a firearm)
- ii. Bites and stings
- iii. Heat and cold injuries
- iv. Accidental poisonings & allergic reactions (excluding asthma and other respiratory conditions)

Natural Cause (NC)

Any illness not as a result of external causes is referred to as a natural cause. This will include bacterial infections (where not the result of an injury), viral infections (where not the result of biological weaponry) and musculoskeletal pain. Any mental or behavioural disorders (including post-traumatic stress disorder - PTSD) are also classified as NC. Asthma and other respiratory conditions that have been exacerbated or triggered by external factors are also classified as natural cause.

If the information available from the DPTS and the DHD is not sufficient to adequately categorise injury or illness, Defence Statistics (Health) contact the DPTC for further clarification on the incident

3.1 Accuracy by Data Source Defence Patient Tracking System (DPTS)

The DPTS is a live system that is constantly being updated. Data for 2015/16 and 2016/17 are provisional and subject to change. Data for 2007/08 – 2014/15 have been finalised and are no longer provisional. Any amendments since the last release have been highlighted by an 'r'.

Data is extracted approximately two weeks after the end of the reporting period. Any clinical contacts not recorded by this time will not be included in the report, but will be included in subsequent releases. Defence Statistics will continue to revise figures until the data has been finalised.

Defence Health Database (DHD)

Defence Statistics use three sources of data to collate the casualty statistics (NOTICAS signals, J97 Field Hospital Returns and Aeromedical Evacuation Control Cell data). Validation routines on each of the datasets are carried out to check on the names and Service numbers of casualties, to ensure that we are accurately counting UK Military casualties and to check whether they've previously been included in the statistics. Defence Statistics also then carry out additional validation of the casualty and fatality data by linking it with two other sources of data, namely the DPTS and the JTTR. This allows us to check on both the Operational Theatre and the classification of injury/illness/death. Any mismatches between the datasets are investigated and amendments are made to the raw data if necessary before the report is processed, ensuring accuracy.

It is possible for Service numbers and nationalities to be recorded incorrectly. If that casualty does not appear in another dataset, Defence Statistics have no other sources to validate against and will assume they have been entered correctly at source. It is therefore possible to exclude a UK casualty if the nationality and service number have been recorded incorrectly.

3.2 Revisions Policy

Some of the data sources used in this report are live systems that are constantly being updated. This means figures can occasionally change. Any amendments made since the last release have been indicated by an 'r'.

In the report published on 26 January 2017 covering data from 8 October 2007 – 31 December 2016, two discrete sets of revisions were made:

- Revisions on previously finalised data for 2013/14 and 2014/15. This was due to a recording error where an outpatient seen was not correctly discharged from care and therefore continued to be recorded in previous versions of this report as attending RCDM, affecting data between July 2013 and September 2016.
- Revisions on previously finalised data for 2013/14. This was due to a manual error in the spreadsheets used to produce the report. The error affects new patients seen at RCDM or DMRC in 2013/14 only.

4. Timeliness and Punctuality

The report for the previous quarter is released on the last Thursday of the following month. It takes approximately two weeks for the clinical contacts to be entered on to the DPTS. The report itself takes approximately one week to compile and validate.

Planned publication dates can be found on the [Publication Release Dates section](#) of the [Gov.uk](#) website. There have not been any delays to release dates since Defence Statistics began to produce the report.

5. Accessibility and Clarity

The reports are published on [Gov.uk](#) website and are available as pdfs. They can be found under the "Operational Casualties" section or by searching for "UK Patient Treatment Statistics". They can also be accessed through an internet search engine such as Google. All tables in the report are available as part of a Microsoft Excel file.

24 hour pre-release access to the report is available to a limited distribution list within the Ministry of Defence (MoD). The full list can be found in the [Pre-Release access list](#) available on the [Gov.uk](#) website.

The commentary in each report identifies and analyses the key changes in the data and summary statistics. It discusses the quality of the underlying data and identifies specific issues and estimates their impact. Each table has a number of footnotes clarifying what is included/excluded, and provides appropriate caveats.

6. Coherence and Comparability

The Defence Statistics figures of UK Military and Civilian personnel injured in Afghanistan and treated at RCDM and/or DMRC are the definitive statistics in the MoD. There are no other publically available regular publications on the numbers of people treated at RCDM and/or DMRC with which to ensure coherence. Within the MoD, direct queries of Defence Medical Information and Capability Programme (DMICP) for RCDM and/or DMRC will produce differing results due to quality issues.

Monthly publications of the "Op HERRICK UK Patient Treatment Statistics: RCDM and DMRC Headley Court" from July 2012 to March 2015, and quarterly publications from Quarter 1 2015/16 (April 2015 – June 2015) onwards (including data back to 8 October 2007 - the earliest available) are available on the [Gov.uk](#) website. Prior to the April 2013 edition, patients injured in Iraq were also included in the report.

The numbers of UK Military and Civilian personnel injured in Afghanistan and treated at RCDM and DMRC are comparable across time, and graphs are included in the report for this purpose.

7. Trade-offs between Output Quality Components

Where possible Defence Statistics minimise the cost to the Government of producing these statistics through using data already collated for operational purposes within the MOD.

The main trade-offs are between timeliness and the quality of the data included within the report. If additional time was allowed to allow for the late addition of data on to the DPTS, the number of subsequent revisions to the report would fall. However, this would reduce the timeliness of the report. Approximately two weeks are allowed after the end of the reporting month before data are extracted. The time allowed to process the raw data and compile the completed report is around one week. Counts, graphs and commentary on trends and patterns are included within the report. However, further statistical analysis is not included. This trade-off has ensured that the information is made available as soon as possible after the end of the month.

8. Assessment of User Needs and Perceptions

The report was initially created in response to a number of FOI requests regarding the number of UK Military Personnel injured in Afghanistan that had been treated at RCDM and DMRC. Key internal and external stakeholders were consulted in its creation.

Defence Statistics (Health) invite feedback from customers within the publication and seek feedback from a wider range of internal and external customers.

9. Performance, Cost and Respondent Burden

Quarterly updates of each publication take approximately 3 days to produce including data preparation, validation and report writing.

The use of custom designed MYSQL queries databases in conjunction with automatically updating Microsoft Excel documents ensures the minimum production time is required, thus keeping production costs to a minimum and ensuring data are as timely as possible.

10. Confidentiality, Transparency and Security

Confidentiality

Outputs include counts of personnel treated at RCDM and DMRC, by type of injury (Battle Injury, Non-Battle Injury and Natural Cause), patient type (Inpatient, Outpatient, Residential patient) and location of treatment. This information is not considered at risk of potentially disclosing sensitive information and as such no suppression or rounding of the data occurs prior to its publication.

Transparency

The Quarterly Afghanistan UK Patient Treatment Statistics: RCDM and DMRC Headley Court report provides commentary on the key features of the outputs and identify any issues or caveats to the data. This quality report provides further information on the method, production process and quality of the output.

Security

All staff involved in the production process have signed a confidentiality agreement; all MoD, Civil Service and data protection regulations are adhered to. The data is stored, accessed and analysed using the MoD's restricted network and IT systems, and the access to raw data is password protected. Once the data has been entered on the Defence Statistics database it is converted into a pseudo-anonymised format prior to analysis, to help ensure the confidentiality of the data held.

11. References

Operations in Afghanistan UK Patient Treatment Statistics: Index

<https://www.gov.uk/government/collections/uk-service-personnel-patient-treatments-statistics-index>

Defence Statistics Release Calendar

https://www.gov.uk/government/statistics/announcements?utf8=%E2%9C%93&keywords=&topics%5B%5D=&organisations%5B%5D=ministry-of-defence&from_date=&to_date=&commit=Refresh+results

MOD Statistics Website

<https://www.gov.uk/government/organisations/ministry-of-defence/about/statistics>

UK Code of Practice for Official Statistics

<http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

Pre-Release List

<https://www.gov.uk/government/statistics/defence-statistics-pre-release-access-list>

Glossary of Terms and Abbreviations

<https://www.gov.uk/government/publications/defence-statistics-glossary-of-terms-and-abbreviations>

Reduction in Frequency Consultation

<https://www.gov.uk/government/consultations/proposed-reduction-in-frequency-of-afghanistan-operational-casualty-statistics>

Defence Statistics Policies

<https://www.gov.uk/government/publications/defence-statistics-policies>

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