

# Annual Tracking of Afghanistan Very Seriously Injured/Seriously Injured UK Operational Casualties

8 October 2007 - 30 September 2015

Published 28 January 2016

This report provides statistical information on UK Service personnel who were Very Seriously Injured (VSI) or Seriously Injured (SI) in Afghanistan on Op HERRICK or Op TORAL. It complements and expands upon the quarterly publication of operational casualty and fatality statistics.

United Kingdom (UK) Forces were deployed to Afghanistan in support of the United Nations authorised, North Atlantic Treaty Organisation (NATO) led International Security Assistance Force mission. Operation HERRICK was the UK operation in Afghanistan that began in April 2006 and ended 30 November 2014. Operation TORAL is the UK contribution to Operations in Afghanistan that commenced on 1 December 2014 under the NATO Resolute Support Mission.

The findings in this report focus on the casualty care pathway both when they are in Theatre in Afghanistan and when they have been returned to the UK. In addition, the number of VSI/SI casualties who have been medically discharged from Service and the number of casualties who have registered for, or been awarded, a claim for compensation under the Armed Forces and Reserves Forces Compensation Scheme (AFCS) has been provided.

### **Key Points and Trends**

- Between 8 October 2007 and 30 September 2015 there were 581 casualties initially classed as VSI or SI on Op HERRICK or Op TORAL (315 were VSI, 266 were SI). As at 30 November 2015, 55 had died of wounds or the injuries sustained and 526 casualties had survived.
- As at 30 November 2015, of the 581 casualties initially classed as VSI or SI on Op HERRICK or Op TORAL, 547 had returned to the UK for further treatment.
- On average, personnel that had an amputation had longer care pathways than non-amputees (1,239 days and 507 days respectively). Of those personnel that had an amputation, VSI personnel had longer care pathways than SI personnel (1,281 days and 1,118 days respectively).
- As at 30 November 2015, 498 personnel initially classed as VSI or SI on Op HERRICK or Op TORAL
  that survived their wounds had closed care pathways, indicating that no further specialist care was
  required:
  - o 151 were still in Service and of these 64 were medically fully deployable (as at 1 November 2015)
  - 347 were no longer in Service (as at 1 November 2015), of which 264 were discharged on medical grounds (as at 31 March 2015)
- As at 30 September 2015, 518 of 581 casualties initially classed as VSI or SI on Op HERRICK or Op TORAL had claimed for compensation under the AFCS. For the 55 personnel who died as a result of their VSI or SI, 22 survivors' claims have been registered.

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 $\textbf{Background quality report:} \ \underline{www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-new properties and the serious of the$ 

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## Introduction

This report provides information on patients that were VSI or SI on Operation HERRICK or Operation TORAL (hereafter referred to as Operations in Afghanistan<sup>1</sup>) between 8 October 2007 (start of the Defence Patient Tracking System (DPTS)) and 30 September 2015 (latest information available) as listed on the initial Notification of Casualty (NOTICAS) signal.

This report focuses on the casualty care pathway both when in Theatre in Afghanistan and when the casualty has returned to the UK. Within this, the types of medical care facilities attended; along with the length of time that Personnel remain in medical care is considered. The report follows these Personnel after their care pathway has closed, giving information regarding deployability status of Personnel still in Service, those Personnel medically discharged, and numbers of the claims for compensation registered and awarded under the Armed Forces and Reserve Forces Compensation Scheme (AFCS).

The findings presented in this report will assist in the future planning of medical care for patients VSI or SI in future conflicts where the types of injuries sustained are comparable. This includes estimating the number of casualties that will be treated at hospitals and other medical facilities, and the length of time they are likely to be a patient at these locations. The findings will also provide the Permanent Joint Headquarters and Commanding Officers a guide as to the length of time that casualties will be in treatment and therefore non deployable or deployable in a restricted role.

The information that is provided in the public domain must ensure that an individual's right to medical confidentiality and the operational security of UK Armed Forces Personnel is not breached. This report, along with the quarterly release of the Afghanistan and Iraq Amputation Statistics, is supporting the Ministry of Defence's (MOD's) commitment to release information wherever possible.

Please note that this report only includes patients that were injured and not those that became ill<sup>2</sup> on Operations in Afghanistan between 8 October 2007 and 30 September 2015 as listed on the initial NOTICAS signal. Further information regarding the methodology of this report can be found in the Methodology (page 30) and in the Background Quality Report<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Operations in Afghanistan in this report refers to Op HERRICK and Op TORAL. Other Operations, such as Op VERITAS are not included, except where specified.
<sup>2</sup> Injury is the result of an external cause (as insert the country).

<sup>&</sup>lt;sup>2</sup> Injury is the result of an external cause (environmental events or circumstances that result in a medical condition); illness refers to and medical condition that is not a result of external causes (this will include bacterial infections (where not the result of an injury), viral infections (where not the result of biological weaponry) and musculoskeletal pain (where not the result of an injury)).

www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-seriously-injured-tracking-2014

# **Medical Care Pathway**

An example of a *typical* medical care pathway for a UK Service Personnel VSI or SI whilst on Operations in Afghanistan can be seen below in **Figure 1**. More detail on specialist treatment locations can be found in the Glossary of this report.

Figure 1: Typical Medical Care Pathway

Point of Wounding: Treated initially by Primary Health Care embedded within units. Medics delivered enhanced first aid to injured personnel. A call for assistance was flashed to the central Operating base if injuries In Theatre: Afghanistan were too serious to be dealt with in the field. Medical Evacuation to Field Hospital by the Medical Emergency Response Team (which is comprised of a specialist doctor and nurse and two paramedics; they are accompanied by appropriate Force Protection assets), or other method of medical evacuation where appropriate. Treatment at Field Hospital: Patient fully stabilised and any emergency procedures carried out. The Camp Bastion field hospital offered an intensive care facility, surgery, Accident and Emergency, physiotherapy, dental and mental health care. Aeromedical Evacuation to UK: If the patient needs more medical care or if a period of recovery prohibits return to duty, the patient is evacuated to the UK aboard specially equipped RAF aircraft. The aeromed teams can provide any level of capability from the most basic to intensive care of critically ill patients, and are specially trained and equipped to operate in the airborne environment. Once in the UK, patients needing more treatment are usually received by the Royal Centre for Defence A patient may attend these locations multiple times in their care pathway Medicine (RCDM), NHS staff are augmented with clinical military staff, delivering the whole range of medical care. When clinically appropriate, patients are cared for in a military ward. Rehabilitation: Treatment at the Defence Medical Rehabilitation Centre (DMRC), Headley Court -Patients recovering from orthopaedic and neurological problems may be moved to Headley Court, which Treatment in the UK: hosts the unique limb Fitting and Amputee Centre, which ensures prosthetic limbs are correctly fitted. Patients may also receive rehabilitation treatment at one of the 15<sup>1</sup> Regional Rehabilitation Units (RRUs). If needed, psychiatric patients are seen for outpatient care at one of the 16 Departments of Community Mental Health (DCMH) across the UK (plus satellite centres overseas), at the MOD's inpatient care contractor, or by one of the Community Psychiatric Nurses (CPN) when they are receiving treatment at RCDM or DMRC Headley Court. Unit Primary Health Care: The goal is always to return injured personnel to duty. That may not always be possible, in which case continued support eases their return to civilian life.

<sup>&</sup>lt;sup>1</sup> Holne RRU in Germany closed in 2015, therefore there are now 14 RRUs available.

# **Care Pathways Summary**

Figure 2: Summary of Care Pathways for VSI/SI Casualties, 8 October 2007 – 30 September 2015<sup>1</sup> 581 (315 VSI, 266 SI) 553 of the 581 patients VSI or SI between 8 October 2007 and 30 September 2015 had closed NOTICAS Signal Initial Listing VSI or SI (Median Length of Stay: 1 day) care pathways. 151 of the 553 with closed care pathways were still in Service: 28<sup>2</sup> Died in Theatre 64 were MFD 14 were MLD 65 were MND 2 patients died following 6 Returned to Unit (RTU) in treatment at RCDM and Theatre Of the 402 who were no longer in Service: 28 died **DMRC** 25 patients died in Theatre, 27 died of their injuries in the UK, two at RCDM while 461 (88%4) seen at DMRC Headley subsequently died in unconnected incidents and undergoing 345 have left the Armed Forces. Court. treatment 1 VSI Aeromed to Germany **167 (32%<sup>4</sup>)** seen at one of the 15 517 survived 542 received by RCDM; Regional Rehabilitation Units their first episode (Treated at Landstuhl 537 admitted and 5 seen (RRUs) of which 1 patient was seen at RCDM to American Facility prior to as outpatients 492 (95%) of the 520 who at a RRU who initially RTU in receive further being Aeromed to the UK for returned to the UK for treatment theatre treatment treatment) and survived their injuries had closed care pathways. Two of 188 (36%4) seen at other hospitals 1 patient returned to these patients subsequently died Unit in the UK then (NHS and other independent sector) in unconnected incidents. received treatment at an of which 1 patient was seen at a 544 Aeromed to the UK NHS hospital who initially returned NHS hospital at a later date to Unit **76** (15%<sup>4</sup>) seen at one of the five Total of 547 patients returned 2 patients returned to MOD Hospital Units (MDHUs).of to the UK for treatment, of Unit in the UK which 1 patient was seen at a which 520 survived their MDHU who initially RTU in theatre injuries and 1 patient was not seen in a field hospital but was returned to 2 SI returned to UK on a the UK and later seen at a MDHU routine flight<sup>3</sup> 179 (34%4) recorded as being assessed for a mental disorder at one of the MOD DCMHs; 157 of 28 (5%) of the 520 who returned to the UK for these were assessed as having a treatment and survived their injuries had open care mental disorder pathways. The current location or next specialist care location recorded for these patients were: Five Primary Health Care 9 patients returned to Unit from Two RCDM **RCDM** 

21 DMRC Headley Court

Source: Initial NOTICAS, DPTS, JPA data, Medical Discharge

<sup>&</sup>lt;sup>1</sup> Darker boxes indicate closed care pathways.

<sup>2</sup> All figures as at date of data extracts: DPTS 30 November 2015, JPA data 1 November 2015, Medical Discharge data 31 March 2015.

<sup>&</sup>lt;sup>2</sup>27 died in a field hospital in Afghanistan and one died while on decompression training in Cyprus.

<sup>3</sup> One personnel returned to unit in theatre after treatment in an Afghanistan field hospital, prior to their return for treatment in the UK. The other personnel returned to the UK without attending the field hospital in Afghanistan, the NOTICAS was raised in the UK.

<sup>&</sup>lt;sup>4</sup> Percentage of those 517 who survived their first episode at RCDM, 2 SI returned to UK on routine flight and 2 patients returned to unit in UK.

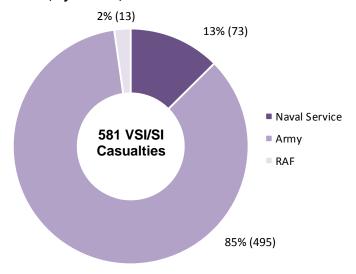
### Number of Personnel VSI/SI

**Very Seriously Injured (VSI):** The patient's condition is of such severity that life or reason is imminently endangered.

**Seriously Injured (SI):** The patient's condition is of such severity that there is cause for immediate concern, but there is no imminent danger to life or reason.

1. The majority of casualties with an initial NOTICAS of VSI or SI on Operations in Afghanistan were in the Army. All Naval Service casualties were from the Royal Marines<sup>2</sup> (**Figure 3**).

Figure 3: Casualties with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan, 8 October 2007 – 30 September 2015, by Service, Numbers



Source: Initial NOTICAS

- 2. The number of casualties with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan fluctuated (**Figure 4**). Operational tempo increased during HERRICK 10 (Summer 2009) largely due to Operation Panther's Claw, and the rise during HERRICK 12 (Summer 2010) was due to an increase in Operational tempo in the province of Sangin (Operation Moshtarak). As Operational tempo lessened, the number of VSI or SI casualties tailed off, with no personnel being listed as VSI or SI on Operations in Afghanistan since April 2014<sup>3</sup>.
- 3. As at 30 November 2015, Personnel had died of wounds (52 VSI, one SI), three had died as a result of their injuries from non-enemy action (all VSI) and 3<sup>4</sup> casualties had survived their injuries.

**Operation Panther's Claw** was preceded by several other operations carried out by British and Afghan government forces with the purpose of "taking and holding ground" in Helmand Province prior to the Afghanistan elections in 2009.

**Op MOSHTARAK** is a united international civil-military operation being conducted in support of the Afghan Government to improve security and stability in central Helmand.

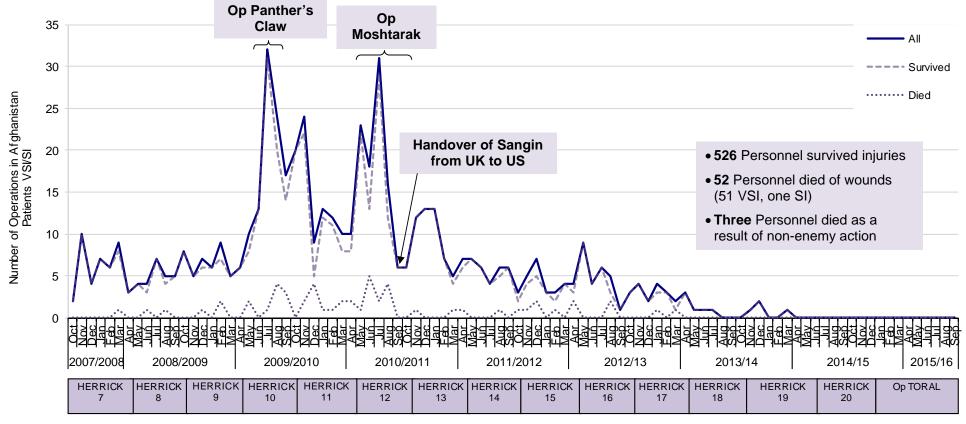
<sup>&</sup>lt;sup>2</sup> See **Figure 3** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>3</sup> See **Figure 4** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>4</sup> Two patients survived and returned to duty but later died in unconnected incidents, thus they are counted throughout this report as having survived their operational injury.

## **Number of Personnel VSI/SI Continued**

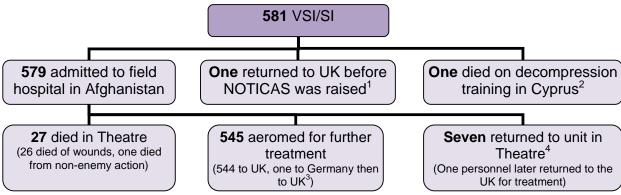
Figure 4: Personnel with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan by month of injury and Roulemont, 8 October 2007 – 30 September 2015, Numbers<sup>1</sup>



Month, Year and Roulemont of Injury

Source: Initial NOTICAS

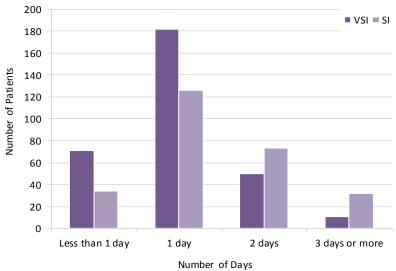
<sup>&</sup>lt;sup>1</sup> Includes 55 personnel who died of wounds/died as a result of their injuries from non-enemy action as at 30 November 2015 and two patients, who survived their operational injury and were returned to duty but later died in unconnected incidents.



Source: Initial NOTICAS and DPTS.

- 4. The length of stay in a field hospital is based on individual circumstances; before leaving the field hospital casualties are fully stabilised and any emergency procedures are carried out prior to their departure from the field hospital. In the case of the 579 casualties VSI/SI admitted to a field hospital, the length of stay varied from less than one day to seven days, with an average (median) length of stay of one day.
- 5. There were differences in the time spent at a field hospital for those casualties injured on Operations in Afghanistan depending on the severity of the injury; a higher proportion of VSI casualties (81%) spent less than two days in a field hospital compared to SI casualties (60%) (**Figure 5**)<sup>5,6</sup>. This reflects the urgency to return VSI casualties to the UK to receive specialist treatment.

Figure 5: Days<sup>1</sup> in field hospital, initial VSI or SI NOTICAS, 8 October 2007– 30 September 2015, Numbers<sup>2</sup>



Source: Initial NOTICAS and J97 field hospital returns.

<sup>5</sup> See **Figure 5** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>1</sup> One personnel returned to the UK before a NOTICAS was raised for an injury sustained on Op HERRICK, therefore was not admitted to a field hospital.

<sup>&</sup>lt;sup>2</sup> At the end of an operational tour, units may find that they require a period of decompression before returning home. This period of time is usually 24-36 hours and involves placing groups into a structured and monitored environment in which to begin winding down and rehabilitating to a routine, peacetime environment.

<sup>&</sup>lt;sup>3</sup> Casualty was aeromed to the United States hospital in Germany for initial treatment for one month, then returned to the UK for further treatment.

<sup>&</sup>lt;sup>4</sup> Casualties treated in a field hospital and then returned to their unit in Theatre. These casualties may have had conditions that were less serious than originally judged, or the treatment may have been readily available in the field hospital and the casualties did not require aeromedical evacuation to the UK.

<sup>&</sup>lt;sup>1</sup> Dates into and out of the field hospital are recorded as date only and not date and time, therefore if a patient arrived and departed on the same day this would be recorded as less than a day. If a patient arrived one day and departed the following day this would be recorded as 1 day.

day. <sup>2</sup>Two casualties have been excluded; one because they died on decompression training in Cyprus and therefore were not admitted to a field hospital in Afghanistan and one because they were not seen at a field hospital in Afghanistan but were later seen at an MOD Hospital Unit when their injury became infected.

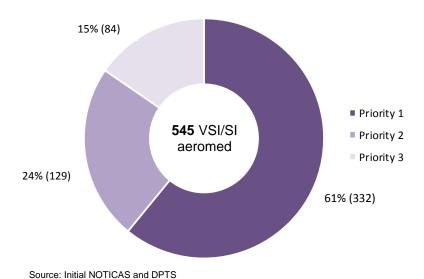
<sup>&</sup>lt;sup>6</sup> The difference in proportions was significantly different for VSI and SI casualties when tested using the Z-test at the 5% significance level.

# **VSI/SI Initial Care - Field Hospital Continued**

## Aeromedical Evacuation

- 6. When patients require aeromedical evacuation they will be given appropriate degrees of priority so that if the aircraft space is limited the more urgent patients may be evacuated before those with conditions less serious. Occasionally patients, particularly those of greater dependency, may wait longer than 7 days in order to maximise fitness to fly and to reduce any risks associated with their movement by air. Such deferment would result from purely clinical considerations.
- 7. Of the 545 VSI/SI casualties that were aeromedically evacuated, the majority (61%) were evacuated as Priority 1, the highest priority <sup>7</sup> (**Figure 6**). This is an indicator of the seriousness of casualties' injuries, and the urgency placed on the need to return them to a place where specialist care can be provided.

Figure 6: Casualties aeromedically evacuated with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan, 8 October 2007 – 30 September 2015, by Priority, Percentage



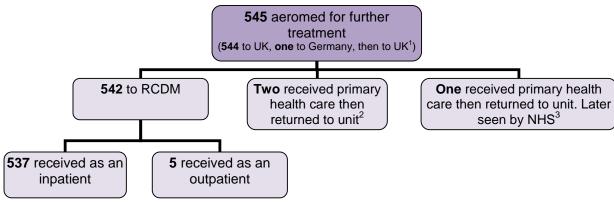
**Priority 1 – Urgent:** Patients for whom speedy evacuation is necessary to save life or limb, to prevent complication of serious illness, or to avoid serious permanent disability.

**Priority 2 – Priority:** Patients who require specialised treatment not available locally and who are liable to suffer unnecessary pain or disability unless evacuated to the UK within 48 hours.

**Priority 3 – Routine:** Patients whose immediate treatment requirements are available locally, but whose prognosis would definitely benefit by air evacuation on routine flights. Most return to the UK within 3-4 days.

<sup>&</sup>lt;sup>7</sup> See **Figure 6** in the Supporting Tables document for further information.

# Returned to UK - First Location of Specialised Care

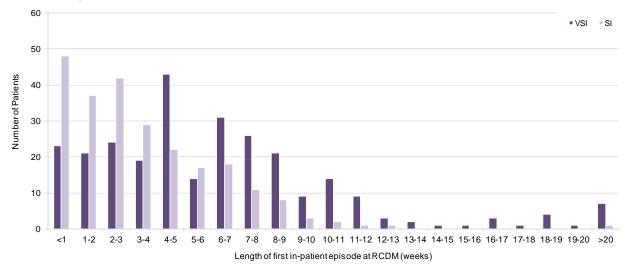


Source: Initial NOTICAS and DPTS.

<sup>2</sup>One VSI, one SI

- 8. 537 of the 542 casualties received by RCDM were admitted as inpatients. The length of stay for these patients varied between less than one day (less than one week) and 229 days (32-33 weeks), with an average (median) of 30 days (4-5 weeks)<sup>8</sup> (**Figure 7**).
- 9. VSI casualties spent longer at their initial episode at RCDM (median average 38 days) when compared to SI casualties<sup>9</sup> (median average 20 days). The time spent at their initial episode at RCDM varied more between VSI casualties in comparison to SI casualties.
- 10. Hostile action casualties spent longer at their initial episode at RCDM (median average 30 days) when compared to non-hostile action casualties <sup>10</sup> (median average 10 days). The time spent at their initial episode at RCDM varied more between hostile action casualties in comparison to non-hostile action casualties.

Figure 7: Length of stay at first inpatient episode at RCDM (weeks), initial VSI or SI NOTICAS, 8 October 2007 – 30 September 2015, Numbers<sup>1</sup>



Source: Initial NOTICAS and DPTS.

<sup>&</sup>lt;sup>1</sup> Casualty was aeromedically evacuated to the United States hospital in Germany for initial treatment for one month prior to their first inpatient admission at RCDM.

<sup>&</sup>lt;sup>3</sup> One SI casualty that received treatment/care at primary health care. This casualty was later seen at an NHS hospital, thus has been included in subsequent sections of this report.

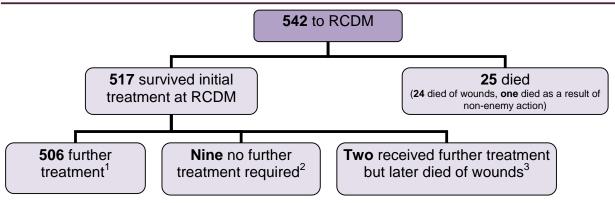
<sup>&</sup>lt;sup>1</sup> Graph represents the length of stay for the 517 inpatients received by RCDM immediately following evacuation from theatre who survived their first inpatient episode.

<sup>&</sup>lt;sup>8</sup> See **Figure 7** in the Supporting Tables document for further information.

The distribution of the length of episodes was significantly different for VSI and SI casualties. Difference in distributions tested using The Mann Whitney U statistic for independent samples at the 5% significance level.

<sup>&</sup>lt;sup>10</sup> The distribution of the length of casualties' first inpatient episodes were significantly different for those injured as a result of hostile action and those injured as a result of non-hostile action. Difference in distributions tested using The Mann Whitney U statistic for independent samples at the 5% significance level.

# Returned to UK – Subsequent Locations of Specialised Care



Source: Initial NOTICAS and DPTS.

11. Following initial treatment at RCDM, patients may receive further treatment at RCDM, Regional Rehabilitation Units (RRUs), Defence Medical Rehabilitation Centre (DMRC), Departments of Community Mental Health (DCMH), other treatment facilities or a combination of these centres. For further information on these centres, please see the Glossary of this report.

# Royal Centre for Defence Medicine (RCDM)

**RCDM:** Since 2001, RCDM, based at the University Hospital Birmingham Foundation Trust (UHBFT), has been the main receiving unit for military casualties evacuated from an operational theatre. In the Birmingham area, military patients can benefit from the concentration of five specialist hospitals (including the new Queen Elizabeth Hospital) to receive the appropriate treatment. The Queen Elizabeth Hospital is at the leading edge in the medical care of the most common types of injuries (e.g. polytrauma) our casualties sustain, and the majority of casualties will be treated there, but others may be transferred to another hospital (in Birmingham or elsewhere) if that is where the best medical care can be given.

#### 12. As at 30 November 2015:

- a. Of the 517 patients that survived their first treatment at RCDM, 331 (64%) patients had received subsequent treatment as an inpatient or outpatient at RCDM; 210 of which were admitted as an inpatient more than once.
- b. Two of the 517 patients were receiving treatment at RCDM or were awaiting their next episode at RCDM.

# Defence Medical Rehabilitation Centre (DMRC)

**DMRC Headley Court:** All patients attending DMRC are initially seen by a team of experts from different medical fields who together agree on the course of treatment. The team includes specialist medical officers, nurses, fitness instructors, physiotherapists, occupational therapists, speech and language therapists, cognitive therapists and social workers. The team also help prepare the casualties for a gradual return to active duty where possible.

#### 13. As at 30 November 2015:

a. 461 (88%) of the 522<sup>11</sup> patients have received subsequent treatment at DMRC Headley Court.

 25 of the 522 patients were currently receiving treatment at DMRC or awaiting their next episode of care at DMRC.

<sup>&</sup>lt;sup>1</sup> Patients received further treatment at RCDM and/or further treatment at other specialist locations

<sup>&</sup>lt;sup>2</sup> Patients completed their initial admission at RCDM before returning to unit and having their care pathway closed, with no further specialist care required

<sup>&</sup>lt;sup>3</sup> Patients received further treatment at RCDM and DMRC, but subsequently died of wounds.

<sup>&</sup>lt;sup>11</sup>522 includes 517 patients that survived initial treatment at RCDM, two SI patients returned to the UK on a routine flight, two patients returned to their unit in the UK and one patient returned to unit having received treatment at an NHS hospital.

# Returned to UK – Subsequent Locations of Specialised Care Cont.

14. Of the 461 patients that were seen at DMRC 95% were seen as outpatients and 81% were admitted as a ward inpatient. Patients may receive multiple appointments of different types during their care pathway (**Table 1**).

Table 1: DMRC appointments attended by casualties with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan, 8 October 2007 to 30 September 2015, by appointment type, Numbers and Percentages<sup>1</sup>

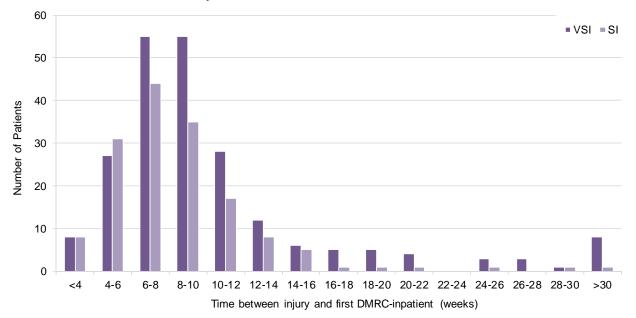
	Number	Percentage
Patients Attended DMRC	461	
Inpatient (ward)	374	81%
Inpatient (residential)	140	30%
Outpatient	438	95%

Source: Initial NOTICAS and DPTS.

### DMRC - Length of time between injury and admissions

15. The length of time between injury and first inpatient episode of care at DMRC varied between 12 days and 873 days, with a median of 59 days. Therefore the impact of an increase in the number of VSI and SI casualties in theatre may lead to an increasing initial burden on DMRC 8 to 9 weeks after injury<sup>12</sup> (**Figure 8**).

Figure 8: Length of time between injury and first inpatient episode of care at DMRC, initial VSI or SI NOTICAS, 8 October 2007 – 30 September 2015, Numbers



Source: Initial NOTICAS and DPTS.

16. First inpatient admissions at DMRC show the smallest variation in the length of time between injury and admission. There are some outliers in this data; some patients take considerably longer than average to arrive at DMRC from their date of injury. Of these outliers, the majority were VSI patients indicating that they may need lengthier specialist care or longer recovery time prior to being admitted for rehabilitation. Subsequent admissions are more variable in nature than the first admission. On average (median) second inpatient admissions occur 17 weeks after injury, nine weeks after first admission (Figure 9).

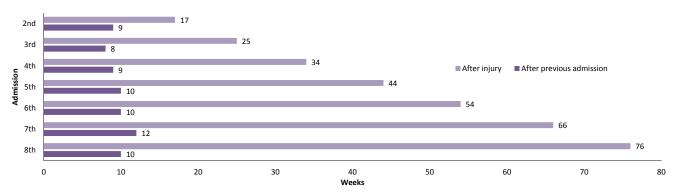
Percentages may total over 100% as patients can attend more than one type of DMRC appointment.

<sup>&</sup>lt;sup>12</sup> See **Figure 8** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>13</sup> See **Figure 9** in the Supporting Tables document for further information.

# Returned to UK – Subsequent Locations of Specialised Care Cont.

Figure 9: Average (median) number of weeks between injury and previous admission, by admission number 1, 8 October 2007 – 30 September 2015, Number of Weeks

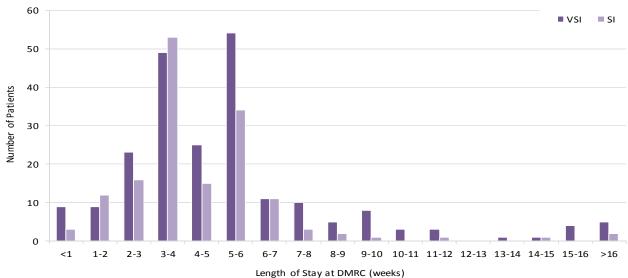


Source: Initial NOTICAS and DPTS.

#### DMRC - Length of initial inpatient admission to DMRC

17. The median length of stay of first admission for SI inpatients at DMRC was three to four weeks, whilst for VSI inpatients the median length of stay was four to five weeks<sup>14</sup> (**Figure 10**). The distribution of the length of inpatients first stay at DMRC was significantly different for VSI and SI patients<sup>15</sup>. VSI casualties spend longer at their initial episode at DMRC when compared to SI casualties.

Figure 10: First Inpatient (Ward) Length of stay at DMRC, initial VSI or SI NOTICAS, 8 October 2007 – 30 September 2015, Numbers



Source: Initial NOTICAS and DPTS.

18. On average the first inpatient admission was the longest admission for the 374 ward inpatients; an average (median) admission length of 30 days<sup>16</sup> (**Figure 11**). There were some outliers in this data, with four patients spending less time than average during their first inpatient admission (less than three days) and a number of patients spending longer than average during their first inpatient admission (more than 50 days). Both VSI and SI inpatients have extreme outliers surrounding their average length of first inpatient admissions indicating that first inpatient length of stay is dependent on individual circumstances.

<sup>16</sup> See **Figure 11** in the Supporting Tables document for further information.

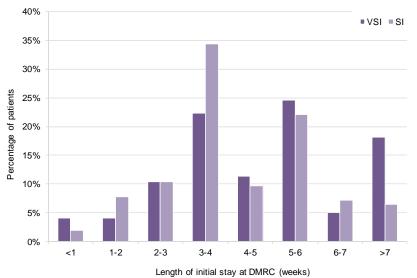
Only up to eight admissions have been shown, however some patients have had more than eight admissions during their care pathway.

<sup>&</sup>lt;sup>14</sup> See **Figure 10** in the Supporting Tables document for further information.

<sup>15</sup> Difference in distributions tested using The Mann Whitney U statistic for independent samples at the 5% significance level.

# Returned to UK – Subsequent Locations of Specialised Care Cont.

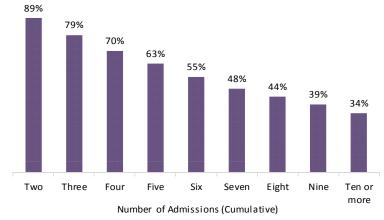
Figure 11: First Inpatient (Ward) length of stay at DMRC, by initial VSI or SI NOTICAS, 8 October 2007 - 30 September 2015, Percentage



Source: Initial NOTICAS and DPTS.

- 19. 91% of VSI/SI patients from Operations in Afghanistan seen at DMRC had multiple admissions. 51% of patients were seen on ten or more occasions<sup>17</sup> (**Figure 12**).
- 20. The average (median) length of stay for each subsequent admission is less than the first but remains relatively stable at around 19 days.

Figure 12: Patients with initial NOTICAS of VSI or SI on Operations in Afghanistan with multiple inpatient admissions to DMRC, by admission number, 8 October 2007 – 30 September 2015, Percentages



Source: Initial NOTICAS and DPTS.

- 21. The distribution of the number of admissions was significantly different for VSI and SI patients<sup>18</sup>. The median number of admissions for VSI patients (eight admissions) was higher than for SI patients (five admissions). This may reflect the more severe injuries that are sustained by VSI patients that require additional inpatient rehabilitation admissions<sup>19</sup>.
- 22. The current maximum number of inpatient admissions is 35 (admissions 21-35 do not appear on **Figure 13**). However, this is likely to change as some patients have yet to complete their care pathway.

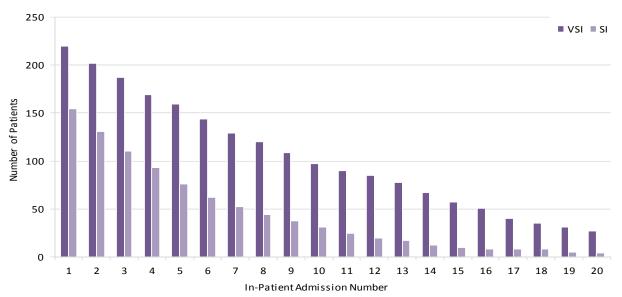
<sup>19</sup> See **Figure 13** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>17</sup> See **Figure 12** in the Supporting Tables document for further information.

<sup>18</sup> Difference in distributions tested using The Mann Whitney U statistic for independent samples at the 5% significance level.

# Returned to UK - Subsequent Locations of Specialised Care Cont.

Figure 13: Inpatient Admissions to DMRC, initial VSI or SI NOTICAS, 8 October 2007 - 30 September 2015, Numbers<sup>1</sup>



Source: Initial NOTICAS and DPTS.

# Regional Rehabilitation Units (RRUs)

RRUs: There are 14 RRUs in the UK and Germany (previously 15 prior to the closure of Holne RRU, Germany) which provide accessible, regionally based assessment and treatment, including physiotherapy and group rehabilitation facilities.

#### 23. As at 30 November 2015:

- 167 (32%) of the 522<sup>20</sup> patients had received subsequent treatment at one of the 15<sup>21</sup> RRUs. Of these:
  - 165 had been seen at Multiple Injury Assessment Clinics (MIAC) i.
  - ii. 50 had been treated on three week rehabilitation courses:
    - a. 27 had been on one rehabilitation course
    - b. 19 had been on two rehabilitation courses
    - c. three had been on three rehabilitation courses
    - d. one had been on four rehabilitation courses
- Two of the 522 patients were currently receiving treatment at a RRU or awaiting their next episode at an RRU.

These figures are cumulative, for example a patient with three admissions will appear in the graph for inpatient admission numbers one, two and

<sup>&</sup>lt;sup>20</sup> 522 includes 517 patients that survived initial treatment at RCDM, two SI patients returned to the UK on a routine flight, two patients returned to their unit in the UK and one patient returned to unit having received treatment at an NHS hospital. <sup>21</sup> Holne RRU in Germany has now closed, therefore there are now 14 RRUs available for personnel.

# Returned to UK - Subsequent Locations of Specialised Care Cont.

### Other Locations

**MDHUs:** There are five MDHUs where Defence Medical Services personnel work alongside civilian colleagues in NHS hospitals. As well as contributing to the care provided by these hospitals, they gain the depth and range of experience necessary to be able to administer first class treatment when deployed on Operations. When clinically appropriate, military patients are kept together and treated by military staff at these units.

#### 24. As at 30 November 2015:

- a. 269 (52%) of the 522<sup>19</sup> patients had received subsequent treatment at another hospital (including NHS Hospitals, an Independent Sector Hospital or a Ministry of Defence Hospital Unit (MDHU)).
- b. No patients were receiving or awaiting treatment at an NHS or Independent Sector Hospital.

**DCMHs:** Psychiatric patients in the UK Armed Forces are seen for outpatient care at one of the 16 DCMHs across the UK, at the MOD's inpatient care contractor, or by one of the Community Psychiatric Nurse when they are receiving treatment at RCDM or DMRC Headley Court. Patients may also receive treatment at one of four mental health posts located in medical centres, attached to a DCMH, staffed by mental health nurses and operating in the same way as a DCMH. Throughout this report the term DCMH included these four mental health posts.

### 25. As at 30 September 2015 (latest date for which mental health data are available):

- a. 179<sup>22</sup> (34%) of the 522<sup>19</sup> patients had been seen for assessment as new patients at one of the MOD's Departments of Community Mental Health (DCMH) after their date of injury. Of these 179 personnel, 157<sup>23</sup> were assessed as having a mental disorder. Of the 157 personnel:
  - i. 136 were assessed with a neurotic disorder, of which 40 were assessed as having Post Traumatic Stress Disorder (PTSD).
  - ii. 23 were assessed with a mood disorder

b. 11 were assessed with another mental disorder; this includes those assessed with mental and behavioural disorders due to alcohol.

- c. Six of the 522 patients were admitted to the MOD's inpatient contractor for mental health care.
- d. None of the 522 patients were currently receiving or awaiting treatment at a DCMH.

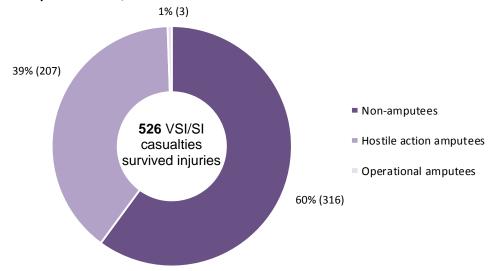
<sup>&</sup>lt;sup>22</sup> Please note that Defence Statistics cannot attribute DCMH attendance to a care pathway

<sup>&</sup>lt;sup>23</sup> If a person had more than one episode of care they will be counted once in each category for their episode of care i.e. if a person had an episode of care for a mood disorder, they will be counted once; if they then went on to have another episode of care for Post-Traumatic Stress Disorder they will also be counted once in this category.

## **Amputees**

26. Of the 526<sup>24</sup> casualties with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan who survived their injuries, 40% were identified as amputees as at 13 July 2015<sup>25</sup> (the latest amputations data available) (**Figure 14**).

Figure 14: Amputee status of personnel VSI/SI on Operations in Afghanistan, by amputee status, 8 October 2007 to 30 September 2015, Percentages



Source: Initial NOTICAS and Amputation data.

- 27. As at 30 November 2015, 20 (10%) of the 210 amputees had open care pathways, indicating that they were still receiving specialist care. Of the 210 amputees<sup>26</sup>:
  - a. All 210 had been treated at RCDM
    - i. All 210 were seen as inpatients
    - ii. 137 were seen as outpatients
  - b. 209 had been treated at DMRC;
    - i. All 209 were seen as outpatients
    - ii. 207 were seen as inpatients on a ward
    - iii. 50 were seen as residential inpatients
    - iv. All 209 patients were seen at more than one type of appointment (inpatient, outpatient and residential).
  - c. 44 had received treatment at an RRU;
    - i. All 44 were seen at a multi-disciplinary injury assessment clinic
    - ii. Three were treated on a rehabilitation course.
  - d. **122** had received subsequent treatment at another hospital (including NHS, Independent Sector Hospitals and Ministry of Defence Hospital Units).
- 28. Please note that the 210 amputees are a subset of those reported in the Annual Afghanistan and Iraq Amputation Statistics produced by Defence Statistics<sup>27,28</sup>.

<sup>&</sup>lt;sup>24</sup> Includes 520 VSI/SI casualties who returned to the UK for treatment and survived, plus six VSI/SI casualties who Returned to Unit in

<sup>&</sup>lt;sup>25</sup> See **Figure 14** in the Supporting Tables document for further information.

<sup>&</sup>lt;sup>26</sup> May sum to over 210 as casualties can be seen at multiple facilities with multiple appointment types.

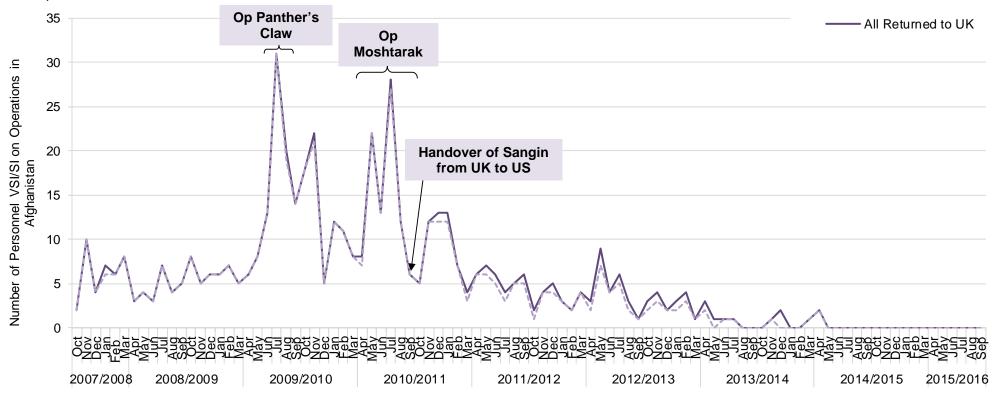
<sup>&</sup>lt;sup>27</sup> Afghanistan and Iraq amputation statistics can be found on <u>Gov.uk</u>.

<sup>&</sup>lt;sup>28</sup> For further information, see the Background Quality Report.

# **Care Pathway Length**

- 29. As at 30 November 2015, 553 personnel out of the 581 with an initial NOTICAS listing of VSI or SI had a closed care pathway. Of the 553;
  - a. 55 died of their wounds or injuries (28 died in theatre, 27 died in the UK)
  - b. 498 survived their injuries.
- 30. The graphs and commentary produced in this section only include the 520 personnel who returned to the UK for treatment and survived their injuries (as at 30 November 2015). This includes 517 patients that survived initial treatment at RCDM, two SI patients returned to the UK on a routine flight and one patient returned to unit having received treatment at an NHS hospital. Those who died in Theatre and the two patients that died in the UK a long time after their injury were excluded from this section as they would skew the trends presented.

Figure 15: Personnel with an initial VSI or SI NOTICAS returned to the UK, by month of injury and closed care pathways, 8 October 2007 - 30 September 2015, Numbers<sup>1</sup>



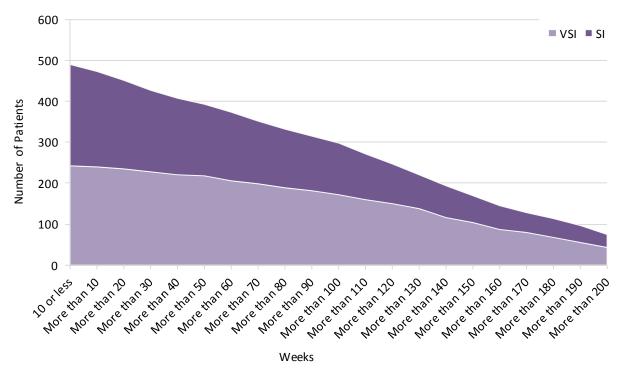
Month and Year of Injury

Source: Initial NOTICAS and DPTS.

<sup>1</sup> Figures presented are for the 520 casualties who returned to the UK for treatment and survived their injuries (as at 30 November 2015).

- 31. As at 30 November 2015, 28 (5%) of the 520 VSI/SI patients returned to the UK for treatment who survived their injuries had open care pathways. The remaining 492 (95%) had closed pathways indicating that no further specialist care was required. Of the 492 patients;
  - a. One had a new pathway initiated (nine months after the original closed pathway) as a result of their previous injury (SI). Their care pathway is now closed.
  - b. Two who required no further specialist follow-up for a VSI and SI were returned to duty,
  - c. Two later died in unconnected incidents
  - d. One was returned via aeromed from Operations for the same injury sustained in the original VSI incident and treated in Primary Health Care. Their care pathway is now closed.
- 32. The length of care pathways for the 492 patients who returned to the UK for treatment and survived their injuries with closed pathways has been displayed in **Figure 16** as a cumulative frequency graph. This shows the time between injury and date of pathway closure. For the patient with a subsequent pathway initiated only the length of time of the initial pathway has been calculated.
- 33. The length of closed care pathways<sup>29</sup> varied between 2 days and 2,622 days, with an average (median) of 845 days<sup>30</sup>.

Figure 16: Length of care pathway for closed pathways (weeks), initial VSI or SI NOTICAS, 8 October 2007 – 30 September 2015, Cumulative Frequency



Source: Initial NOTICAS and DPTS.

34. Please note, there were some patients with open care pathways as at the date of data extract (30 November 2015) who were injured at the start of 2008; these pathways were over six years in length.

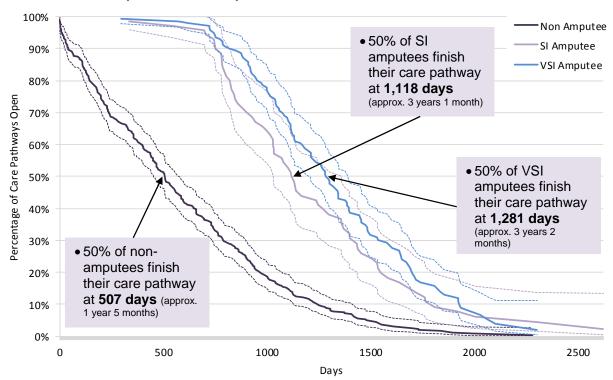
<sup>&</sup>lt;sup>29</sup> Please note that Defence Statistics are aware of data issues with the date care pathways are closed and this is currently in the process of being validated. As such this data should be treated as provisional.

<sup>&</sup>lt;sup>30</sup> See **Figure 16** in the Supporting Tables document for further information.

#### **Survival Analysis**

- 35. Survival analysis<sup>31</sup> is a statistical methodology that can be used to identify if two or more populations show differences in the rate of a "failure" event over time, and to predict the probability that a failure will or will not have occurred after a set period of time. In the context of this report "Survival" does not refer to the death of a patient, but to the length of time for which a patient is treated in secondary rehabilitation care for their injury. A "failure" or termination of a patient's care can occur as a result of three actions:
  - a. The patient no longer requires specialist care (hospital or rehabilitation unit)
  - b. The patient leaves the Armed Forces
  - c. The patient dies
- 36. Survival analysis was performed considering the differences in care pathway length for casualties treated in the UK depending on their initial NOTICAS listing of VSI or SI, along with their amputee status of either amputee or non-amputee. In previous reports, this was presented separately, however further analysis found that though there was significance in the VSI/SI listing of amputees, there was no significance in the VSI/SI listing of non-amputees. Therefore, combined analysis has been reported below and separate analysis of initial NOTICAS listing and amputee status is now available in the Supporting Tables document of this report<sup>32</sup>.
- 37. Survival analysis performed on the care pathway length of the 547 casualties treated in the UK showed that the difference between non-amputees, VSI amputees and SI amputees was significant<sup>33</sup>; those amputees with an initial NOTICAS of VSI tend to have longer care pathways than non-amputees and SI amputees (**Figure 17**). This is to be expected, as in order to be classed as VSI on an initial NOTICAS, the injury must be of sufficient severity that life or reason is imminently endangered. Additionally, the care required following an amputation tends to be more extensive than for those not requiring an amputation.

Figure 17: Survival Curves<sup>1,2</sup> of care pathway lengths<sup>3,4,5</sup>, by non-amputee, VSI amputee and SI amputee, 8 October 2007 - 30 September 2015, Proportion



Source: Initial NOTICAS and DPTS.

<sup>5</sup> UK Armed Forces personnel on Operations in Afghanistan treated in the UK.

<sup>&</sup>lt;sup>1</sup> Time from injury to closure of care pathway.

Dotted lines show respective Upper and Lower 95% Confidence Intervals. For further information see Background Quality Report and Supplied Tables document.

<sup>&</sup>lt;sup>3</sup> As at 30 November 2015 (date of extract).

<sup>&</sup>lt;sup>4</sup> Generated using a Kaplan-Meier survival model. For further information see Background Quality Report.

<sup>&</sup>lt;sup>31</sup> For further information about Survival Analysis and the methodology used in this report, see the Background Quality Report at <a href="https://www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-seriously-injured-tracking-2014">www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-seriously-injured-tracking-2014</a>

<sup>&</sup>lt;sup>32</sup> See **Figure 17a** and **Figure 17b** in the Supporting Tables document.

<sup>33</sup> See **Figure 17** in the Supporting Tables document.

- 99% of both VSI and SI amputee patients treated in the UK to have an open care pathway after 1 year. In comparison, we expect 62% of non-amputee patients treated in the UK to have an open care pathway after 1 year (Table 2).
- Approximately 36% of VSI amputees, 26% of SI amputees and 6% of non-amputees had an open care 39. pathway more than four years after injury (some of which were still receiving specialist care as of the date of data extract, 30 November 2015).

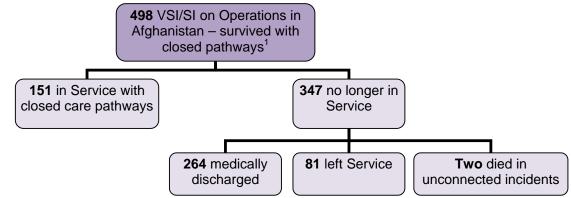
Table 2: Estimated open care pathways of VSI/SI UK Armed Forces personnel treated in the UK, after selected time periods, by non-amputee, VSI amputee and SI amputee, 8 October 2007 - 30

September 2015, Numbers and Percentages

	N	on-Ampute	е	VSI Amputee		е	SI Amputee		
Time	Number	Number	% Closed	Number	Number	% Closed	Number	Number	% Closed
Tille	Open	Closed	/₀ Closeu	Open	Closed		Open	Closed	
0 months	337	0	0%	140	0	0%	70	0	0%
6 months	259	78	23%	140	0	0%	70	0	0%
1 year	208	129	38%	139	1	1%	69	1	1%
2 years	119	218	65%	134	6	4%	66	4	6%
3 years	51	286	85%	97	43	31%	38	32	46%
4 years	19	318	94%	50	90	64%	18	52	74%
5 years	7	330	98%	21	119	85%	6	64	91%

Source: Initial NOTICAS and DPTS.

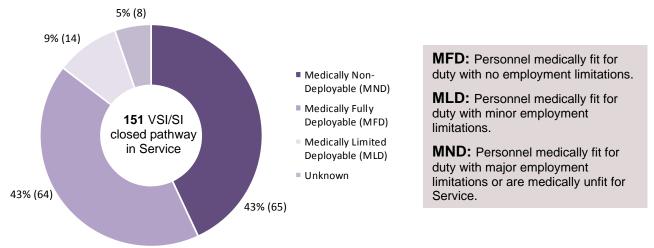
<sup>1</sup> Please note that as the number and proportion of closed care pathways are rounded estimates, percentages data may not match count data.



Source: Initial NOTICAS, Medical Discharge data and JPA.

40. 151 (30%) of the 498 patients who returned to the UK for treatment and survived their injuries with closed pathways were still in Service on 1 November 2015 (the latest strength data available). The latest Medical Deployment Standard (MDS) as recorded on their medical record in the Defence Medical Information Capability Programme (DMICP) was identified, with 43% of personnel still in Service listed as Medically Fully Deployable (MFD)<sup>34</sup> (**Figure 18**).

Figure 18: Current Joint Medical Employability Status for personnel in Service following VSI/SI injury on Operations in Afghanistan, by status, 8 October 2007 – 30 September 2015, percentages



- 41. As at 30 November 2015 (latest deployment data available), 53 of the 498 patients who returned to the UK for treatment in specialist care and survived their injuries with closed pathways had subsequently redeployed on Op HERRICK, Op TELIC and/or Op TORAL after their care pathway closure date.
- 42. As at 31 March 2015 (the latest date for which medical discharge data are available), 76% of the 347 VSI and SI casualties that were no longer in Service had been discharged from Service due to medical grounds. Please note that discharge may not as a result of injuries sustained while on Operations in Afghanistan.
- 43. Of the 264 medically discharged from Service, Musculoskeletal disorders and injuries were the most common principal cause<sup>35</sup> of medical discharge (225 cases, 85%). Other principal causes of medical discharge included mental and behavioural disorders (nine cases, 3%), clinical and laboratory findings (nine cases, 3%) and factors influencing health status (seven cases, 3%).

<sup>34</sup> See **Figure 18** in the Supporting Tables document for statistical testing results.

Patients who returned to the UK for treatment and survived their injuries.

<sup>&</sup>lt;sup>35</sup> It should be noted that it is not possible to determine if the principal cause of medical discharge is a result of the injury sustained on Operations in Afghanistan.

# **Armed Forces Compensation Scheme (AFCS)**

# Claims Registered

- 44. As at 30 September 2015 (the latest date for which AFCS data are currently available), 518 of the 581 casualties (89%) had registered<sup>36</sup> injury/illness claims under the AFCS. These individuals made a total of 729<sup>37</sup> injury/illness claims, which included multiple and/or additional claims for some individuals.
- 45. Of the 581 VSI/SI casualties, 55 subsequently died as a result of their injuries. As at 30 September 2015, 22 survivor's claims have been registered under the AFCS as a result of these deaths.
- 46. 47<sup>38</sup> of the 581 VSI/SI casualties (8%) have not registered an injury/illness or survivor's claim (as at 30 September 2015). Currently, individuals have up to seven years from the date of injury to make an injury/illness claim and families have up to three years to make a claim as a result of a death caused by Service. Therefore, further claims may still be registered for these casualties in the future.
- 47. Please note that six of the 581 casualties registered an injury/illness claim and then subsequently died. A survivor's claim was then also registered for these casualties. These individuals are counted in the figures quoted in both paragraphs 51 and 52, therefore the figures quoted will not sum to the total number of injury and survivors' claims.

# Awards Made for Injury/Illness Claims

- 48. As at 30 September 2015, 515 of the 518 individuals (99%) who claimed under the AFCS were awarded compensation for an illness/injury related to their Service. A total of 671 compensation awards were made to these individuals.
- 49. A claim is awarded if the injury/illness is accepted as due to Service. Conditions are assessed against a tariff of injuries table where the lower numerical values (i.e. 1-4) reflect the more severe conditions that are awarded at the highest tariff level<sup>39</sup>.
- 50. Under the AFCS, individuals awarded for an injury/illness claim at tariff levels 1-11 receive a Guaranteed Income Payment (GIP), which is an index-linked, tax-free payment, in addition to their lump sum amount. Individuals awarded at tariff levels 12-15 will receive a lump sum amount only.
- 51. Of the 671 compensation awards, 493 were made at tariff levels 1-11 and therefore included a GIP in addition to the lump sum payment. The remaining 178 awards were made at tariff levels 12-15 and included the lump sum payment only.
- 52. Of the 493 awards including a GIP, 171 awards were made at 100% GIP percentage and therefore received 100% of the tariff amount for all awarded conditions. The two categories of conditions most frequently awarded in these cases were 'injury, wounds and scarring' and 'amputations'.
- 53. As at 30 September 2015, there were no rejected claims where a condition was not accepted as being due to Service. One claim was accepted as bring due to Service, but did not meet the minimum tariff level and therefore no compensation was awarded.
- As at 30 September 2015, there were no outcomes recorded on the Compensation and Pension System (CAPS) for the claims of two VSI/SI casualties who had registered injury/illness claims under the AFCS.

<sup>&</sup>lt;sup>36</sup> A claim is classed as "registered" when Defence Business Services begin a workflow on the Compensation and Pension System for a claim.

<sup>37</sup> Please note that for the period 8 October 2007 to 30 September 2015 this figure has been revised from 877 to 729, please see Further Information

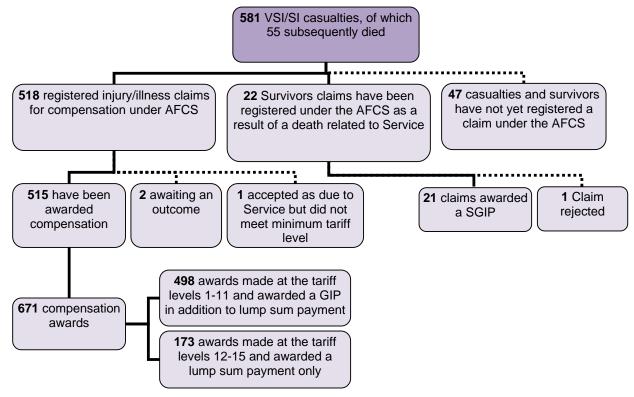
<sup>&</sup>lt;sup>38</sup> Please note that for the period 8 October 2007 to 30 September 2015 this figure has been revised from 52 to 47, please see Further Information.

<sup>&</sup>lt;sup>39</sup> Further details on the scheme can be found at https://www.gov.uk/government/publications/armed-forces-compensation/armed-forces-compensation

# **Armed Forces Compensation Scheme (AFCS) Cont.**

## Awards Made for Survivors' Claims

- 55. Where death is caused by Service the AFCS provides an income stream known as the Survivors' Guaranteed Income Payment (SGIP). This is payable to the spouse, civil partner or adult dependant for life. Compensation is also paid to eligible children, known as the Child Payment.
- 56. Of the 22 survivors' claims registered as at 30 September 2015, 21 were awarded an SGIP and one claim had been rejected.

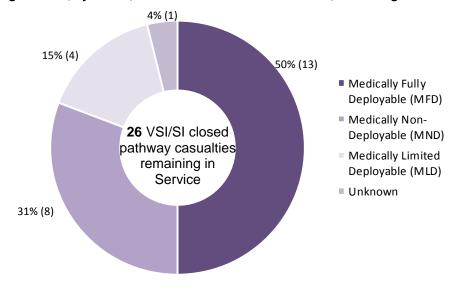


Source: Initial NOTICAS and AFCS.

# Casualties VSI/SI, 7 Oct 2001 to 7 Oct 2007

- 57. Between 7 October 2001 (the commencement of Op VERITAS) and 7 October 2007 (the day before the start of the Defence Patient Tracking System), there were 93 casualties with an initial NOTICAS classification of VSI or SI on Operations in Afghanistan<sup>40</sup> (49 were VSI, 44 SI);
  - a. 75 (81%) of these were the result of hostile action
  - b. 18 (19%) were the result of Operational accidents.
- 58. Six of the 93 casualties died as a result of their injuries (all VSI);
  - a. Three died of wounds
  - b. Three died as a result of their injuries from non-enemy action.
- 59. As at 1 November 2015 (the latest date for which Strength data are available), 61 (70%) of the 87 casualties with an initial NOTICAS listing of VSI or SI on Operations in Afghanistan between 7 October 2001 and 7 October 2007 who survived their injuries were no longer in Service.
- 60. As at 31 March 2015 (the latest date for which medical discharge date are available) 39 (64%) of the 61 VSI and SI casualties that survived their injuries and were no longer in Service had been discharged from Service due to medical grounds and a further two were medically discharged and have since re-joined the Services. It should be noted that the principal condition leading to discharge may not be related to the VSI/SI injury sustained.
- 61. Of the 39 medically discharged from Service, Musculoskeletal disorders and injuries was the most common principal cause of medical discharge (28 cases). Other principal causes of medical discharge included ear and mastoid process diseases, factors influencing health status, mental and behavioural disorders, nervous system disorders and skin and subcutaneous tissue diseases.
- 62. 26 of the 87 casualties who survived their injuries were still in Service on 1 November 2015 (the latest strength data available). The latest Medical Deployment Standard (MDS) as recorded on the Defence Medical Information Capability Programme (DMICP) was identified (**Figure 19**)<sup>41</sup>;
  - 13 were medically fully deployable (MFD)
  - Four were medically limited deployable (MLD)
  - Eight were medically non deployable (MND)
  - One had no MDS recorded after their injury on DMICP

Figure 19: Current Joint Medical Employability Status for personnel in Service following VSI/SI injury on Operations in Afghanistan, by status, 7 October 2001 – 7 October 2007, Percentages



Source: Initial NOTICAS and DMICP.

<sup>&</sup>lt;sup>40</sup> Operations in Afghanistan in this section refers to Op HERRICK and Op VERITAS

<sup>41</sup> See **Figure 19** in the Supporting Tables document for further information.

# Methodology

VSI and SI categories as listed in injured personnel NOTICAS, are defined by Joint Casualty and Compassionate Policy and Procedures. They are not strictly 'medical categories' but are designed to give an indication of the severity of the injury to inform the next of kin and the chain of command. Though a casualty's classification may change over time, this report only includes casualties with an initial NOTICAS listing of VSI or SI.

This report only includes patients that were injured and not those that became ill<sup>42</sup> on Operations in Afghanistan between 8 October 2007 and 30 September 2015 as listed on the initial NOTICAS signal. Information regarding casualties' care pathway is sourced from the DPTS which commenced on 8 October 2007, therefore, detailed information on the casualty care pathway is not available for those VSI or SI casualties in Afghanistan between 7 October 2001 (start of Operations in Afghanistan) and 8 October 2007.

The information in this report includes Naval Service Personnel (includes the Royal Navy and the Royal Marines), Army Personnel (including those from the Gibraltar Regiment), RAF Personnel and Reservists.

Data in this report comes from numerous sources as listed below. Detailed information on these datasets and how they are used in this report is contained in the Background Quality Report.

- Compensation and Pension System (CAPS)
- Defence Medical Information Capability Programme (DMICP).
- Defence Statistics' Medical Discharge Database
- Defence Statistics' Mental Health Returns Database
- DMRC Headley Court Complex Trauma Database
- DMRC Headley Court Prosthetics Database
- Field Hospital Admissions from J97 Returns and Operational Emergency Department Attendance Register (OpEDAR)
- Joint Personnel Administration (JPA)
- Notification of Casualty (NOTICAS)
- The Defence Patient Tracking System (DPTS)
- The Joint Theatre Trauma Registry (JTTR)

For further information regarding data validation, analysis, accuracy and security, please see the Background Quality Report for this Official Statistic. This can be found at <a href="https://www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-seriously-injured-tracking-2014">www.gov.uk/government/statistics/op-herrick-afghanistan-very-seriously-injured-and-seriously-injured-tracking-2014</a>

<sup>&</sup>lt;sup>42</sup> Injury is the result of an external cause (environmental events or circumstances that result in a medical condition); illness refers to any medical condition that is not a result of external causes (this will include bacterial infections (where not the result an injury), viral infections (where not the result of biological weaponry) and musculoskeletal pain (where not the result of an injury)).

# **Glossary**

### **Amputee**

An amputee is defined as live UK Service personnel who have an injury coded in the Joint Theatre Trauma Register (JTTR) as Amputation (traumatic), partial or complete, for either upper or lower limbs using the Abbreviated Injury Scale (AIS) Dictionary 2005 (Military Edition), and live UK Service personnel who had a surgical amputation performed either at the field hospital or at a UK hospital (the majority of these will be at the Royal Centre for Defence Medicine). A traumatic or surgical amputation can range from the loss of part of a finger or toe up to the loss of entire limbs. Only amputees with an initial NOTICAS listing of VSI or SI have been included in this report.

## **Armed Forces Compensation Scheme (AFCS)**

The AFCS came into force on 6 April 2005 to pay compensation for injury, illness or death caused by Service that occurred on or after that date. It replaced the previous compensation arrangements provided by the War Pensions Scheme (WPS) and the attributable elements of the Armed Forces Pensions Scheme.

Injury claims are made by serving or former members of the Armed Forces for an injury or illness caused by Service. Additional claims are those made following in-Service, medical discharge, or post service claims, to include additional information not presented in the initial claim. Survivors' claims are made by surviving dependants of former members of the Armed Forces where death was caused by Service.

#### **Hostile Action**

#### Battle Injury

Refers to any injury sustained whilst under direct and indirect fire. 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.

#### Killed in Action (KIA)

A battle casualty who is killed outright or who dies as a result of wounds or other injuries before reaching a medical treatment facility.

#### Died of Wounds (DOW)

A battle casualty who died of wounds or other injuries received in action, after having reached a medical treatment facility. This only includes those who have died of wounds whilst under the care of Defence Medical Services.

#### **Medical Deployability Status**

Service personnel with medical conditions or fitness issues which affect their ability to perform their duties will generally be referred to a medical board for a medical examination and review of their medical grading. The patient may be downgraded, to allow for treatment, recovery and rehabilitation. Medically downgraded personnel are those personnel who have been assessed by a medical board and subsequently awarded a Medical Deployability Standard (MDS) of either Medically Limited Deployable (MLD) or Medically Non Deployable (MND).

### Medically Limited Deployable (MLD)

MLD personnel are medically fit for duty with minor employment limitations. MLD personnel may have a medical condition or functional limitation that prevents the meeting of all MFD requirements. MLD personnel can undertake full employment with possible limitations on their deployability. Their condition must not be vulnerable to exacerbation due to deployment or impose a constant demand on medical service on exercise or deployment.

#### Medically Non Deployable (MND)

MND personnel are medically fit for duty with major employment limitations or are medically unfit for Service. MND personnel have a medical condition or functional limitation that prevents the meeting of all MLD requirements. MND personnel are not fit to deploy on Operations but may be deployable on UK based exercises and should be able to work effectively for at least 32.5 hours per week. They may require continued medical care, long term medication and access to secondary care facilities.

#### Medical Discharge

Medical discharges are the result of a number of specialists (medical, occupational, psychological, personnel, etc) coming to the conclusion that an individual is suffering from a medical condition that pre-empts their continued service in the Armed Forces. Statistics based on these discharges do not represent measures of true morbidity or pathology. At best they indicate a minimum burden of ill-health in the Armed Forces. Furthermore, the number and diversity of processes involved with administering a medical discharge introduce a series of time lags, as well as impact on the quality of data recorded.

# **Glossary Cont.**

If a decision has been taken to medically discharge an individual from the Military, the specific Defence Medical Services health team who have been caring for that individual will begin a liaison with appropriate civilian healthcare providers (e.g. General Practitioner/Primary Health Care Team/civil mental health team/NHS Trust) to ensure that the transfer of care and patient history takes place.

Additionally the MOD have specialist health social workers who manage the individual's wider resettlement issues, liaising with relevant civil agencies such as local housing authorities, financial authorities, service welfare and charitable organisations; again to endeavour that the individual's transfer into the civilian environment is as smooth and as seamless as possible.

#### **Non Hostile Action**

#### Battle Injury

Refers to any injury sustained as a result of external causes not as a result of direct or indirect fire. 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)

#### Died on Operations (DOP)

A casualty who died whilst deployed on, or as a result of operations, but was not KIA or DOW. Includes operational accidents, road traffic accidents, assaults, suicides and deaths as a result of natural causes. If the casualty died outright they are classified as *Killed Not Enemy Action (KNEA)* and if they died of their injuries after reaching a medical treatment facility they are classified as *Died Not Enemy Action (DNEA)*.

### **Notification of Casualty (NOTICAS)**

NOTICAS is the name for the formalised system of reporting casualties within the UK Armed Forces. It sets in train the MOD's procedure for informing next of kin. NOTICAS reports raised for casualties contain information on how serious medical staff in Theatre judge their condition to be. VSI and SI are the two most serious categories into which personnel can be classified. These categories are not strictly 'medical categories' but are designed to give an indication of the severity of the injury to inform the next of kin and the chain of command.

#### **Operations**

### Operation VERITAS

UK operations in Afghanistan which started in October 2001. The UK was involved in Afghanistan alongside Coalition forces, led by the US under Operation Enduring Freedom (OEF), from the first attacks in October 2001.

#### Operation HERRICK

UK operations in Afghanistan which started in April 2006 and ended on 30 November 2014. UK Forces are deployed to Afghanistan in support of the UN authorised, NATO led International Security Assistance Force (ISAF) mission.

#### Operation TORAL

The UK's post 2014 contribution to operations in Afghanistan under the NATO RESOLUTE SUPPORT MISSION and commenced on 1 December 2014.

#### Operation TELIC

UK operations in Iraq which started in March 2003. There was a drawdown of troops in July 2009 and Op TELIC finished on 21 May 2011. UK Forces were deployed to Iraq to support the Government's objective to remove the threat that Saddam Hussein posed to his neighbours and his people and, based on the evidence available at the time, disarm him of his weapons of mass destruction. The Government also undertook to support the Iraqi people in their desire for peace, prosperity, freedom and good government.

#### Roulemont

A Roulemont in Afghanistan comprises a six month time period from April to October or October to April<sup>43</sup>. Some of the results in this report are presented by these time periods representing the summer and winter deployments. Each six month time period for Op HERRICK was assigned a sequential number from 4 to 20, which ended 30 November 2014.

<sup>&</sup>lt;sup>43</sup> HERRICK 19 was extended until 9 June 2014 as part of the Op HERRICK drawdown.

### **Further Information**

### **Provisional Data**

In 2013/14 and 2014/15, Defence Statistics (Health) did not receive all Army discharge paperwork which confirms that an individual has medically discharged and the cause information for the discharge. Therefore, Army medical discharge figures for 2013, 2014 and 2015 are provisional and should be considered a minimum. Please see the Annual Medical Discharges in the UK Regular Armed Forces Background Quality Report<sup>44</sup> for further information.

#### **AFCS Data**

Since the release of the September 2014 AFCS Official Statistic Defence Statistics have worked with Defence Business Services and Veterans UK to investigate data issues. As a result of this work, the following changes were made which resulted in the number of registered claims previously reported reducing.

- Between 6 April 2005 and 31 March 2014, 1,751 "treat as never made" claims had not been correctly closed and were incorrectly counted as genuine registered claims. These have now been removed from the publication.
- Between 6 April 2005 and 31 March 2014, 2,220 claims were incorrectly reported as withdrawn and therefore incorrectly counted as genuine registered claims. Veterans UK have advised that there claims are "treat as never made" cases and therefore have been removed from the publication.

As a result of these changes, numbers on this report may have reduced from the previous publication.

### Suppression

A small number of the figures presented in this report have been suppressed in line with the Defence Statistics' rounding policy for health statistics (May 2009), and in keeping with the Office for National Statistics Guidelines, have been referred to as less than five. This measure has been taken to match other reports containing this information produced by Defence Statistics and to ensure individual identities have not been revealed inadvertently.

#### Rounding

Where rounding has been used, totals and sub-total have been rounded separately and so may not equal the sums of their rounded parts.

#### Revisions

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'.

<sup>44</sup> https://www.gov.uk/government/statistics/uk-service-personnel-medical-discharges-background-quality-report

## **Contact Us**

Defence Statistics welcome feedback on our statistical products. If you have any comments or questions about this publication or about our statistics in general, you can contact us as follows:

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If you require information which is not available within this or other available publications, you may wish to submit a Request for Information under the Freedom of Information Act 2000 to the Ministry of Defence. For more information, see:

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