Annual Medical Discharges in the UK Regular Armed Forces

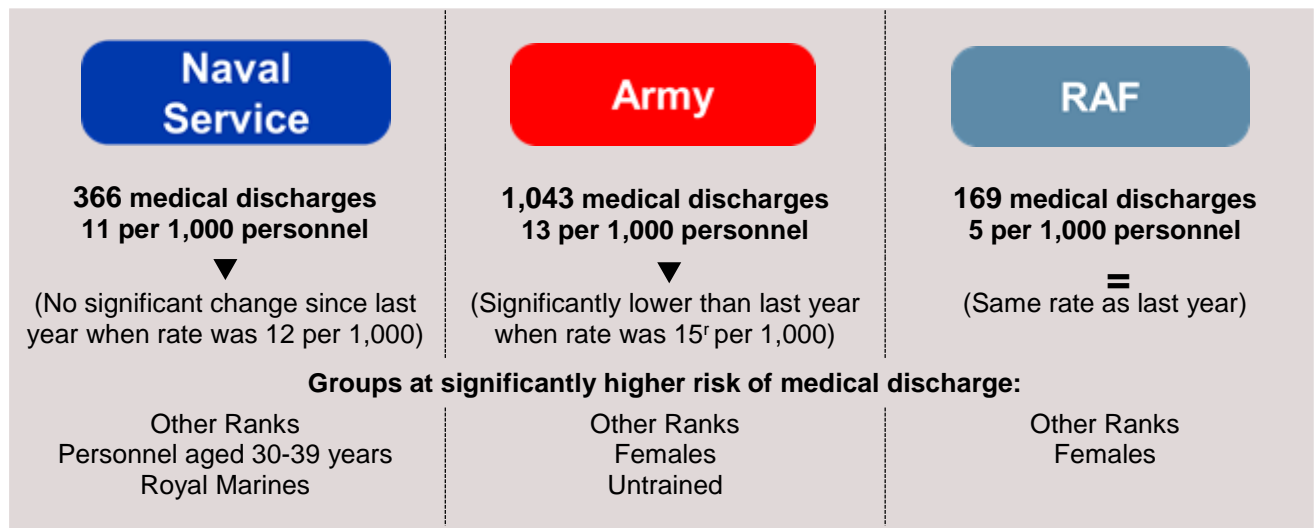## 1 April 2015 to 31 March 2020

This official statistic provides time trends for the last five years of medical discharges among UK regular service personnel with a focus on the most recent year of information, including demographic factors and the medical causes leading to the discharge.

When a medical condition or fitness issue affects a member of the UK armed forces, their ability to perform their duties is assessed. If they are unable to perform their duties and alternative employment within the armed forces is not available, personnel can then be medically discharged. Medically discharged personnel leave the armed forces prior to the completion of their contract and may be entitled to additional payments as part of their military pension.
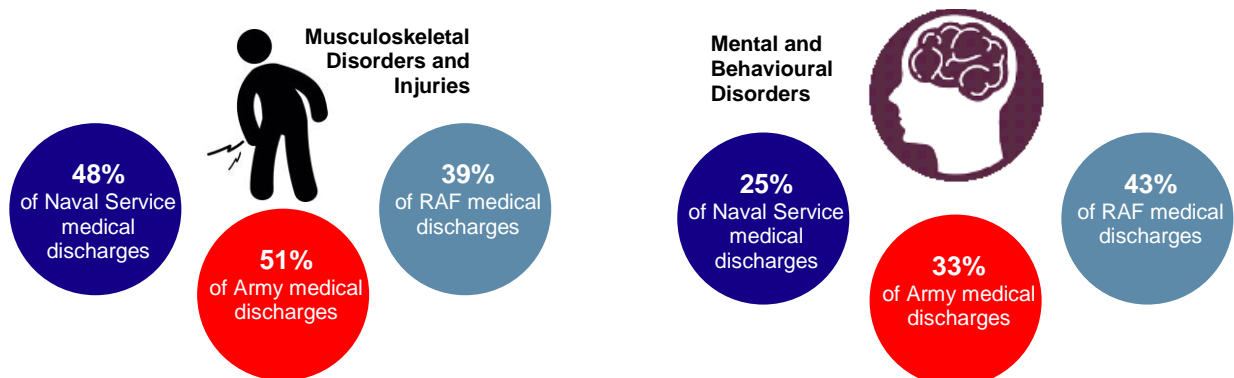
The medical reason for the discharge is recorded and categorised. It is possible for personnel to be medically discharged for multiple reasons.

Key Points and Trends

Between 1 April 2019 and 31 March 2020 (2019/20):

Naval Service

366 medical discharges
11 per 1,000 personnel
▼
(No significant change since last year when rate was 12 per 1,000)

Army

1,043 medical discharges
13 per 1,000 personnel
▼
(Significantly lower than last year when rate was 15ʳ per 1,000)

RAF

169 medical discharges
5 per 1,000 personnel
=
(Same rate as last year)

Groups at significantly higher risk of medical discharge:

Naval Service	Army	RAF
Other Ranks	Other Ranks	Other Ranks
Personnel aged 30-39 years	Females	Females
Royal Marines	Untrained	

For all three services, the main causes of medical discharges were *Musculoskeletal Disorders and Injuries* and *Mental and Behavioural Disorders*. This was in line with findings from previous years.

Musculoskeletal Disorders and Injuries

48% of Naval Service medical discharges

51% of Army medical discharges

39% of RAF medical discharges

Mental and Behavioural Disorders

25% of Naval Service medical discharges

33% of Army medical discharges

43% of RAF medical discharges

2 in 5 personnel (42%) medically discharged left as a result of multiple medical conditions.

Contents

Past publications and supplementary tables containing all data presented in this publication, including detailed monthly breakdowns, can be found at*:*

https://www.gov.uk/government/collections/medical-discharges-among-uk-service-personnel-statistics-index.

Introduction

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. In clear cut cases where the individual's fitness falls below the service employment and retention standards the board will recommend a medical discharge; as laid down in the medical policy and/or the single services retention standards for their career group. In many cases however, the patient will first be downgraded, to allow for treatment, recovery and rehabilitation. For personnel who do not make a total recovery, the board may recommend the patient is retained as permanently downgraded with limited duties, or they may recommend a medical discharge. The recommendation is then forwarded to personnel administration units or an employment board for ratification or decision and action.

This report provides the Ministry of Defence (MOD), the general public and the media with information on medical discharges in the UK regular armed forces. In addition, this information is used to prioritise resources used for the rehabilitation and reintegration of personnel leaving the armed forces for medical reasons and to help inform discussions on injury prevention in the armed forces. Each of the three services are presented separately as comparisons between the services are considered invalid. This is because practices and protocols for recommending and awarding a medical discharge differ. This is particularly true for untrained personnel.

Please note that this report focuses exclusively on medical discharges that have occurred; medically downgraded personnel who are retained in service or exit the forces for any other reason are excluded[1]. Also, as these statistics relate only to the population of personnel who medically discharged, the proportions of medical reasons leading to discharge are not necessarily indicative of the prevalence of such conditions in the entire UK armed forces population. This document focuses on principal cause of medical discharge; information on principal and contributory cause is found in the supplementary tables.

This official statistic includes medical discharges of regular UK armed forces personnel only and excludes all reservist personnel. This is because the medical discharge process and medical record information for reservist personnel is not comparable to that of regular personnel. Most reserve personnel do not receive their primary medical care from MOD, but instead receive their primary medical care from the NHS. Therefore, Defence Statistics Health are unable to verify the quality of information relating to the discharge of reservist personnel and it has not been deemed appropriate to include information on this population until further understanding is gained.

Please note that Defence Statistics Health did not receive all army discharge paperwork confirming cause of medical discharge for 1 April 2014 to 31 March 2019, and Naval Service and RAF paperwork for 1 April 2015 to 31 March 2016. Therefore, cause information for these years should be considered a minimum. It is not expected that further information will be obtained and therefore figures are not provisional. Please see the annual medical discharges in the UK regular armed forces background quality report for further information[2].

Please note that due to COVID-19 limiting access to places of work, Defence Statistics Health were not able to access all of the paperwork confirming cause of medical discharge for trained army personnel between 1 April 2019 and 31 March 2020. Therefore, army cause information for this latest year should be considered provisional and subject to change.

Executive Summary

Between 1 April 2019 and 31 March 2020 (2019/20) of the UK regular armed forces population:

Naval Service

366 Naval Service personnel were medically discharged, a rate of **11 per 1,000 personnel**. The rate was not significantly different from last year (12 per 1,000 personnel).

Army

1,043 Army personnel were medically discharged, a rate of **13 per 1,000 personnel**. The rate was significantly **lower** than last year (15[r] per 1,000 personnel).

RAF

169 RAF personnel were medically discharged, a rate of **5 per 1,000 personnel**. The rate was the same rate as last year.

A total of **1,578 medical discharges** occurred in 2019/20, representing approximately 4 UK regular armed forces personnel medically discharged each day.

The rate of army medical discharge in 2019/20 was the lowest in eight years. Changes in rates do not necessarily reflect prevalence of injury and/or illness, and instead may reflect changes in boarding practices, retention policies or changes to employment standards. In 2019/20 the army updated their medical employment policy, placing greater emphasis on retention and transfer of personnel with medical limitations into roles suitable for their individual needs, thus retaining personnel who may previously have been medically discharged.

Between 1 April 2019 to 31 March 2020 the following demographic groups were significantly more likely to medically discharge:

- **Other Ranks** in each of the three services.
- **Females** in the army and the RAF.
- **Personnel aged 30-39** years in the Naval Service.
- **Royal Marines** compared to the Royal Navy**.**
- **Untrained** personnel in the army.

The demographic groups with higher rates of discharge were broadly consistent with the results from other reports. The annual MOD Health and Safety Statistics found other ranks and untrained personnel had higher rates of injury and ill health related incidents[3]. The Women in Ground Close Combat Roles review also found that female personnel had a higher rate of injuries than males[4].

For all three services, the two most common principal causes of medical discharge were **Musculoskeletal Disorders and Injuries** and **Mental and Behavioural Disorders**. This finding is likely to be due to the physical demands of the UK armed forces and difficulty retaining personnel with severe or enduring mental ill-health given the nature of their role and access to weapons, as well as the commonality of these conditions among the general population. Other militaries report similar findings, with the United States Army[5] and Canadian military[6] reporting Musculoskeletal Disorders and Injuries and Mental and Behavioural Disorders as the two most common reasons for medical release.

Since 2015/16, the proportion of medical discharges as a result of Mental and Behavioural Disorders increased in all three services. This may have been a result of MOD led anti-stigma campaigns, leading to an increase in awareness regarding mental health issues among UK armed forces personnel, Commanding Officers and clinicians. This in turn may have led to greater detection rates.
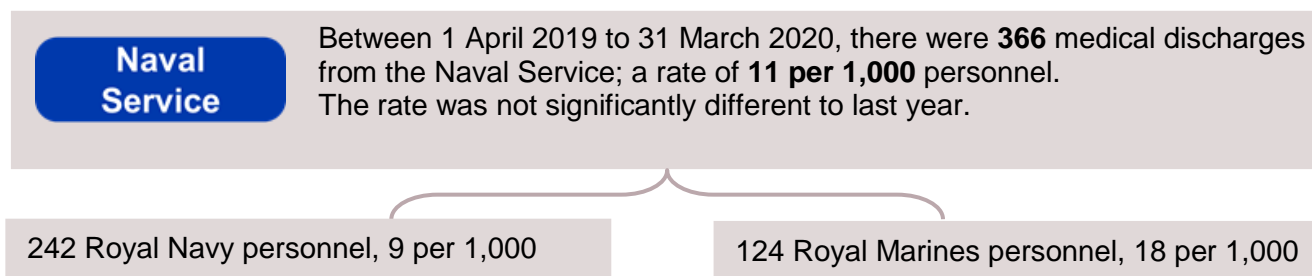
In 2019/20 the proportion of RAF medical discharges as a result of Mental and Behavioural Disorders was higher than that of Musculoskeletal Disorders and Injuries for the first time. Whilst, the rate of personnel medically discharged for Mental and Behavioural Disorders also increased between 2018/19 and 2019/20, this was not a statistically significant change.

Naval Service

Trends in Medical Discharges

Naval Service

Between 1 April 2019 to 31 March 2020, there were **366** medical discharges from the Naval Service; a rate of **11 per 1,000** personnel.
The rate was not significantly different to last year.

242 Royal Navy personnel, 9 per 1,000

124 Royal Marines personnel, 18 per 1,000

Figure 1 shows the number and rate of Naval Service medical discharges over time from 1 April 2010 to 31 March 2020:

▲ The rate of medical discharges rose between 1 April 2010 and 31 March 2012. This may have been a result of the improved management of the recovery care pathway[7], the completion of treatment of personnel injured on operations and the limited number of non-deployable roles available in the Naval Service.

▼ The rate of medical discharges fell between 1 April 2013 and 31 March 2014. During this financial year there was a reduction in the capacity of Naval Service medical boards due to a lack of administrative support; this may have contributed to the fall in the rate of medical discharges. Additionally, following the Strategic Defence and Security Review (SDSR), there was a greater need to retain downgraded personnel.

▲ The rate of medical discharges rose between 1 April 2014 and 31 March 2018. This may have been due to an increase in the capacity of Naval Service medical boards. Increased capacity meant that the medical boards could reduce any backlog of personnel awaiting a formal medical board.

▼ The rate of medical discharges has continued to fall since 1 April 2018. The decrease is consistent in both Royal Navy and Royal Marines personnel.

Naval Service Continued

Figure 1: UK regular Naval Service[1] medical discharges by financial year, numbers and crude rates per 1,000 personnel at risk
1 April 2010 to 31 March 2020
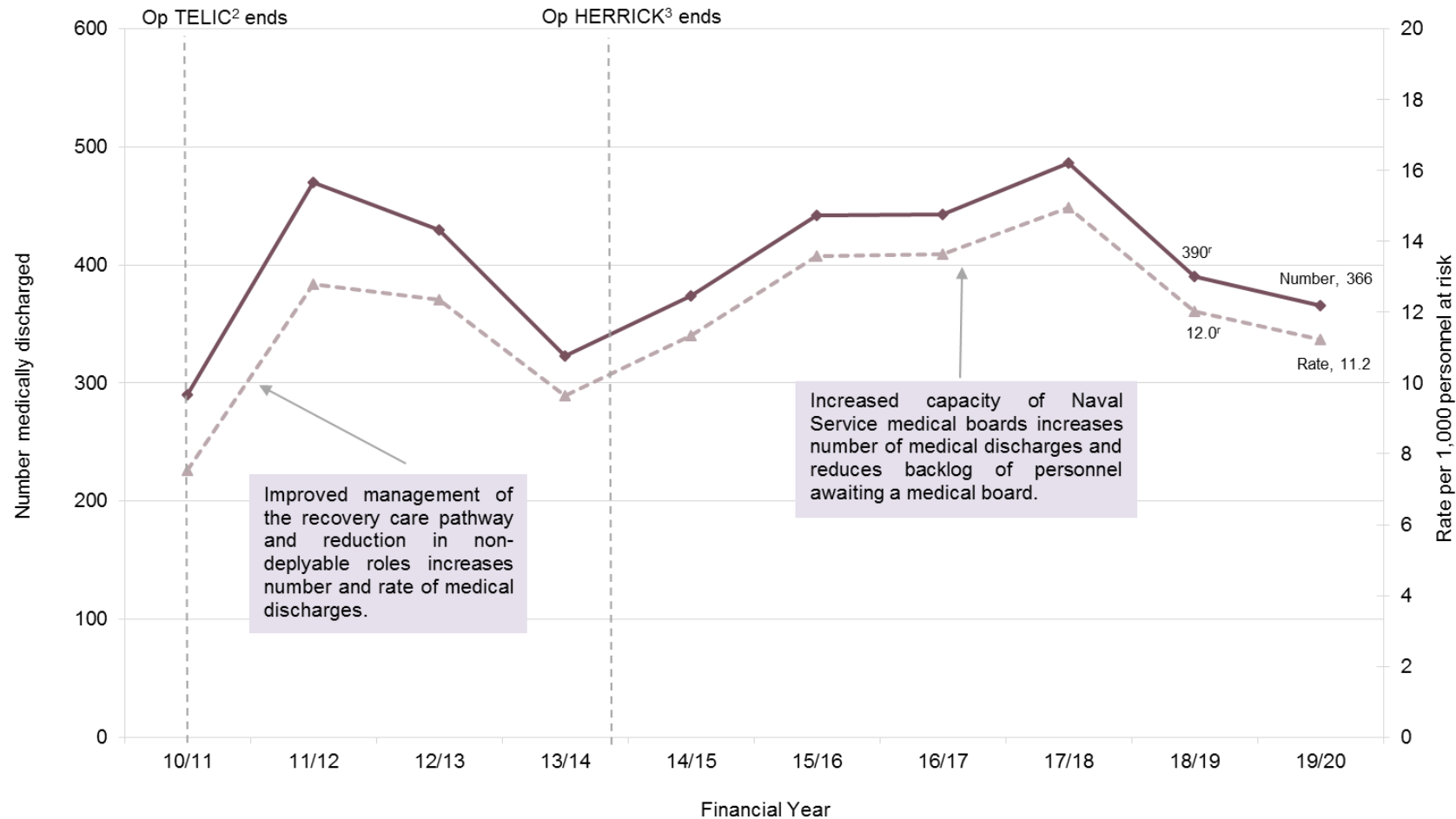
Source: DMICP, FMed 23 and JPA
[1] Naval Service includes Royal Navy and Royal Marines.
[2] Operation TELIC is the name for UK operations in Iraq which began March 2003 and ended on 21 May 2011.
[3] Operation HERRICK is the name for UK operations in Afghanistan which began 1 April 2006 and ended on 30 November 2014.
[r] indicates a revision to previously published data

Naval Service Continued

Demographic Risk Groups

Between 1 April 2019 to 31 March 2020, the rate of medical discharge was significantly higher for regular **Naval Service** personnel within specific demographic groups (**Table 1**):
- Other ranks.
- Personnel aged 30-39 years.
- Royal Marines.

Royal Navy personnel only:
- Personnel aged 35-39 years.
- Females.
- Other ranks.
- Trained personnel.

Royal Marines personnel only:
- Other ranks.
- Untrained personnel.

Table 1: UK regular Naval Service[1] medical discharges by age group[2], gender[2], rank[2] and training status[2], numbers and rates per 1,000 personnel at risk
1 April 2019 to 31 March 2020

	2019/20		Rate of UK regular Naval Service personnel medically discharged
	n	r	
Number of UK regular Naval Service personnel medically discharged	**366**	**11.2**	
Age			
Aged under 20	7	4.5	
Aged 20-24	49	7.9	
Aged 25-29	86	12.1	
Aged 30-34+	84	14.0	
Aged 35-39+	78	16.5	
Aged 40-44	36	12.4	
Aged 45-49	17	7.5	
Aged 50 and over	9	5.2	
Gender			
Male	320	10.9	
Female	46	14.6	
Rank			
Officer	25	3.6	
Other Rank*	341	13.3	
Training Status			
Trained	334	11.6	
Untrained	32	8.2	
Service			
Royal Navy	242	9.4	
Royal Marines*	124	18.4	

Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
+ Groups found to be at a significantly higher than average risk using a z-test for a single proportion at a 95% confidence level.
* Groups found to be at a significantly higher risk using a z-test for proportions at a 95% confidence level.

Naval Service Continued

Figures 2 to **6** present the Naval Service medical discharges by demographic group from 1 April 2015 and 31 March 2020 with possible explanations for the differences observed.

Figure 2: UK regular Naval Service[1] medical discharges by age group[2] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020
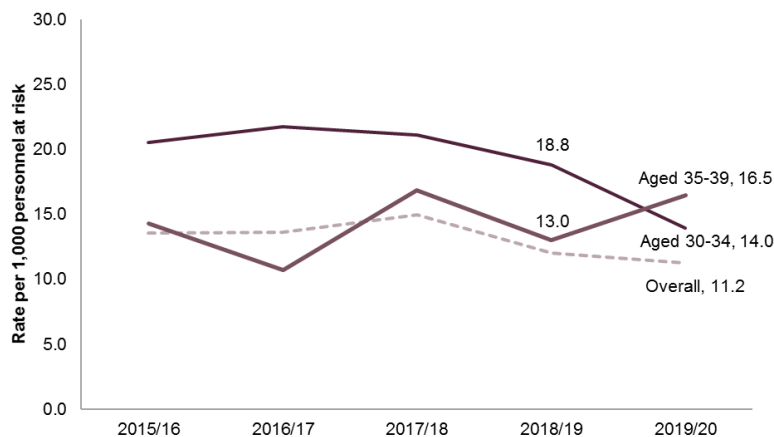
The rate of medical discharge for personnel **aged 30-34 and aged 35-39 years was significantly higher** than the remaining age groups. The rate for those aged 30-34 has been falling since 2016/17, the reason for this is unclear.
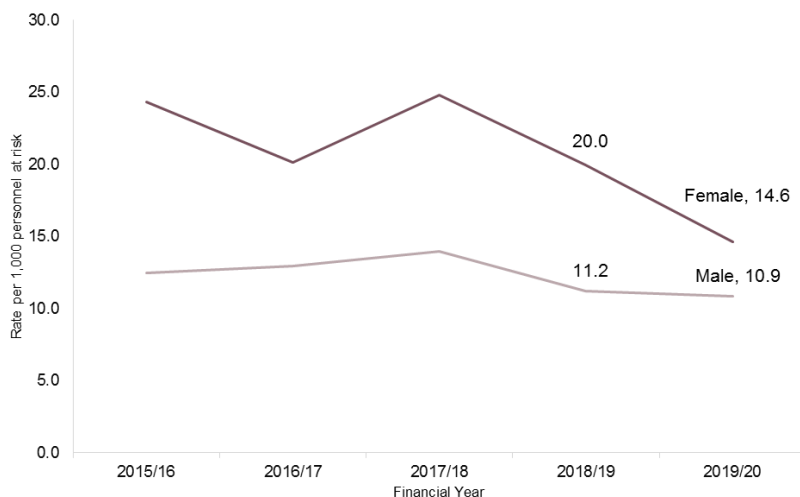
Other age groups are presented in graphs within the supplementary tables.

Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

Figure 3: UK regular Naval Service[1] medical discharges by gender[2] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020

The rate of medical discharges in females has fallen in recent years and **in 2019/20, there was no significant difference** between the rate of medical discharges among males and females for the first time in the period presented.

The higher rate of medical discharges in female personnel may be due to their higher risk of sustaining Musculoskeletal Disorders and Injuries[4], reporting injury[3] and higher presentation of mental health disorders[8].
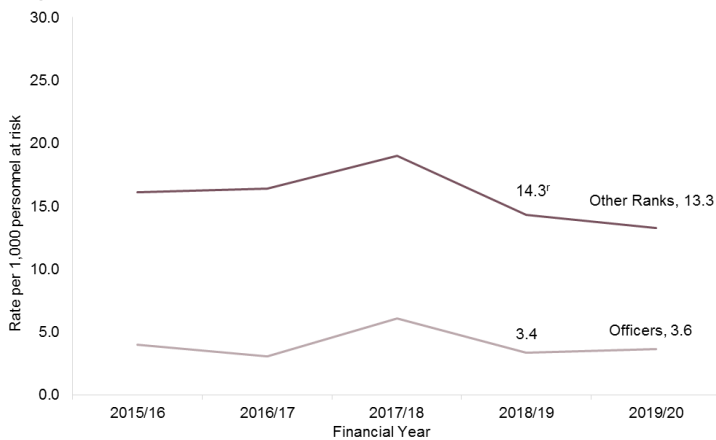
Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

Naval Service Continued

Figure 4: UK regular Naval Service[1] medical discharges by rank[2] and financial year, rates per 1,000 personnel at risk

1 April 2015 and 31 March 2020
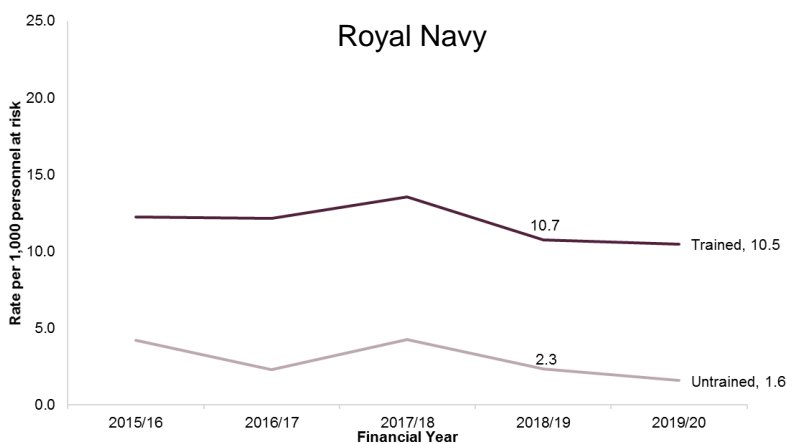

Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
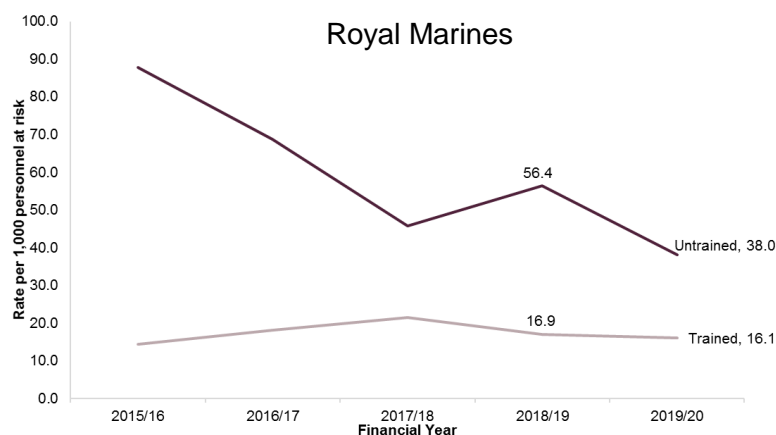[2] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data.

The rate of medical discharge among **other ranks was significantly higher** than officers throughout the period presented. The reason for this is unclear however it may in part be due to role requirements; officers may have more opportunities to be placed in an ashore role where it is easier to deliver medical care and assess treatment. There are complexities of retaining personnel with medical needs in on-board ship roles.

Figure 5: UK regular Naval Service[1] medical discharges by training status[2] and financial year, rates per 1,000 personnel at risk

1 April 2015 and 31 March 2020

There was no significant difference in the rate of medical discharges between untrained and trained personnel for Naval Service personnel as a whole, except for in 2015/16.

When considering the Royal Navy and Royal Marines separately; the rate of medical discharge was **significantly higher** among **trained Royal Navy** personnel and **untrained Royal Marines**. The higher rate of medical discharges in untrained Royal Marines is also seen in untrained army personnel and may be due to the similarly intensive nature of the training programmes.
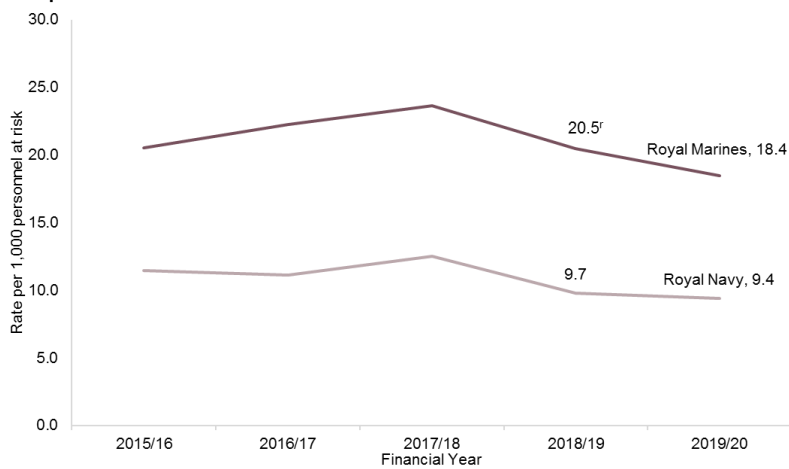
Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

Naval Service Continued

Figure 6: UK regular Naval Service medical discharges by Royal Marines/Royal Navy[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data.

The rate of medical discharges among **Royal Marines was significantly higher than the Royal Navy** in each of the years presented.

This is likely to be due to a number of factors:

• A higher standard of physical fitness associated with deployment is required in the Royal Marines. Rigorous training routines may lead to increased injuries.

• Less availability of roles within the Royal Marines for personnel with limited deployability compared to the Royal Navy.

The rates of medical discharge by demographic groups can be found for the Royal Navy and Royal Marines as individual populations in **Annex A** (pages 33 to 36).

Naval Service Continued

Causes of Medical Discharge

When UK armed forces personnel are medically discharged, the medical reason for the discharge is recorded and categorised using a coding system known as ICD-10 (see glossary). **Table 2** presents this information by principal ICD-10 cause code group (the chapter within which the condition is categorised) for the past five years.

48% of medical discharges (approx. 1 in 2) were due to **Musculoskeletal Disorders and Injuries**.

25% of medical discharges (approx. 1 in 4) were due to **Mental and Behavioural Disorders**.

Table 2: UK regular Naval Service[1] medical discharges by principal ICD-10 cause code group and financial year, numbers[2] and percentages[3]
1 April 2015 and 31 March 2020

	All		2015/16		2016/17		2017/18		2018/19		2019/20	
	n	%	n	%	n	%	n	%	n	%	n	%
All medical discharges	**2,127**		**442**		**443** ͬ		**486**		**390** ͬ		**366**	
All cause coded medical discharges	**2,120**	**100**	**436**	**100**	**443** ͬ	**100**	**486**	**100**	**389** ͬ	**100**	**366**	**100**
Infectious and parasitic diseases (A00 - B99)	~	<1	~	<1	~	<1	0	0	0	0	0	0
Neoplasms (C00 - D48)	19	<1	~	<1	6	1	~	<1	~	<1	~	1
Blood disorders (D50 - D89)	~	<1	0	0	~	<1	~	<1	0	0	~	<1
Endocrine, nutritional and metabolic diseases (E00 - E90)	27	1	~	1	~	<1	6	1	6	2	7	2
- Of which diabetes (E10-E14)	17	<1	~	<1	~	<1	6	1	~	<1	~	<1
- Of which insulin-dependent (E10)	13	<1	~	<1	~	<1	5	1	~	<1	~	<1
- Of which non-insulin-dependent (E11)	~	<1	0	0	~	<1	~	<1	~	<1	0	0
Mental and behavioural disorders (F00 - F99)	**398**	**19**	72	17	62	14	89	18	83	21	92	25
- Of which mood disorders (F30 - F39)	137	6	25	6	18	4	32	7	33	8	29	8
- Of which depression (F32 & F33)	118	6	18	4	17	4	28	6	29	7	26	7
- Of which neurotic, stress related and somatoform (F40 - F48)	226	11	36	8	39	9	48	10	47	12	56	15
- Of which post-traumatic stress disorder (PTSD) (F431)	123	6	16	4	23	5	27	6	28	7	29	8
- Of which adjustment disorder (F432)	29	1	~	<1	~	<1	6	1	8	2	10	3
Nervous system disorders (G00 - G99)	85	4	16	4	15 ͬ	3	19	4	15	4	20	5
- Of which epilepsy (G40)	11	<1	~	<1	5 ͬ	1	~	<1	~	<1	0	0
Eye and adnexa diseases (H00 - H59)	12	<1	~	<1	~	<1	~	<1	~	<1	~	<1
- Of which blindness, low vision and visual disturbance (H53-H54)	5	<1	~	<1	~	<1	0	0	~	<1	~	<1
Ear and mastoid process diseases (H60 - H95)	100	5	21	5	19	4	28	6	12	3	20	5
- Of which hearing loss (H833 & H90 - H91)	81	4	18	4	16	4	23	5	9	2	15	4
- Of which noise-induced hearing loss (H833)	12	<1	~	<1	~	<1	~	<1	~	<1	5	1
- Of which tinnitus (H931)	11	<1	~	<1	~	<1	~	<1	~	<1	~	<1
Circulatory system disorders (I00 - I99)	34	2	10	2	5	1	6	1	7	2	6	2
Respiratory system disorders (J00 - J99)	37	2	10	2	7	2	8	2	6	2	6	2
- Of which asthma (J45 & J46)	29	1	9	2	6	1	~	1	~	1	~	1
Digestive system disorders (K00 - K93)	72	3	19	4	13	3	19	4	13	3	8	2
Skin and subcutaneous tissue diseases (L00 - L99)	49	2	10	2	8	2	11	2	7	2	13	4
Musculoskeletal disorders (M00 - M99) and injuries (S00 - T98)	**1,192**	**56**	253	58	276 ͬ	62	270	56	218 ͬ	56	175	48
- Of which injuries and disorders of the knee[3]	269	13	62	14	69	16 ͬ	56	12	50 ͬ	13	32	9
- Of which knee pain (M2556)	130	6	24	6	35	8	32	7	24	6	15	4
- Of which back pain (M544 - M545, M549)	211	10	42 ͬ	10 ͬ	45 ͬ	10	53	11	31	8	40	11
- Of which low back pain (M544 - M545)	193	9	37 ͬ	8	40 ͬ	9	49	10	28	7	39	11
- Of which injuries and disorders of the ankle and foot[4]	105	5	29	7	24	5	18	4	20	5	14	4
- Of which heat injury (T67)	~	<1	0	0	0	0	0	0	0	0	~	<1
- Of which cold injury (T68 & T69)	30	1	10	2	~	<1	7	1	~	1	6	2
Genitourinary system diseases (N00 - N99)	11	<1	~	<1	~	<1	5	1	~	<1	0	0
Pregnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	10	<1	~	<1	~	<1	~	<1	~	<1	~	<1
Clinical and laboratory findings (R00 - R99)	60	3	8	2	16	4	14	3	13	3	9	2
External Causes of Morbidity and Mortality (V01 - Y98)	~	<1	0	0	0	0	~	<1	0	0	0	0
Factors influencing health status (Z00 - Z99)	7	<1	~	<1	~	<1	~	<1	~	<1	0	0
No details held on principal condition for medical boarding	7		6		0		0		1		0	
Withheld consent	0		0		0		0		0		0	

Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] Data presented as "<1%" represent a percentage greater than 0% but smaller than 1%.
[3] Injuries and disorders of the knee have been compiled using ICD-10 codes, please see annex for specific codes.
[4] Injuries and disorders of the ankle and foot have been compiled using ICD-10 codes, please see annex for specific codes.
~ In line with JSP 200 on statistical disclosure, figures less than five have been suppressed. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.
ͬ indicates a revision to previously published data

Principal cause is the main medical cause of the discharge.

Contributory causes include any other conditions identified that would result in a medical discharge.

Naval Service Continued

Figure 7 shows the main causes of medical discharges between 1 April 2015 and 31 March 2020.

Musculoskeletal Disorders and Injuries was the largest principal cause of Naval Service medical discharges, accounting for over half of all discharges over the last five years. In the Royal Marines specifically, Musculoskeletal Disorders and Injuries accounted for nearly two thirds of discharges which may be due to many roles within this service being particularly physically demanding.

Mental and Behavioural Disorders remained the second largest principal cause of Naval Service medical discharges across the reporting period. The proportion of medical discharges for these disorders has increased since 2016/17 in line with a rise in rates of personnel seen in a military healthcare setting for a mental health-related reason[8]. The proportion of Mental and Behavioural Disorders are lower among Royal Marines personnel (9%) than Royal Navy personnel (25%). Rates of mental disorder seen in military healthcare settings[8] were also lower among Royal Marines than the Royal Navy; this may be attributed to their selection processes, tight unit cohesion and high levels of preparedness.

Ear and Mastoid Process Diseases and Nervous System Disorders were the joint third largest principal cause of Naval Service medical discharges, each accounting for 5% (n = 20) of medical discharges in 2019/20.

Please note that each medical discharge can only have one principal condition, and a decrease in one cause code group may appear as an increase in another. Therefore, it is important to consider all cause code groups when looking at trends over time.

Figure 7: UK regular Naval Service[1] medical discharges by principal ICD-10 cause code group and financial year, percentage of medical discharges[2,3]
1 April 2015 and 31 March 2020
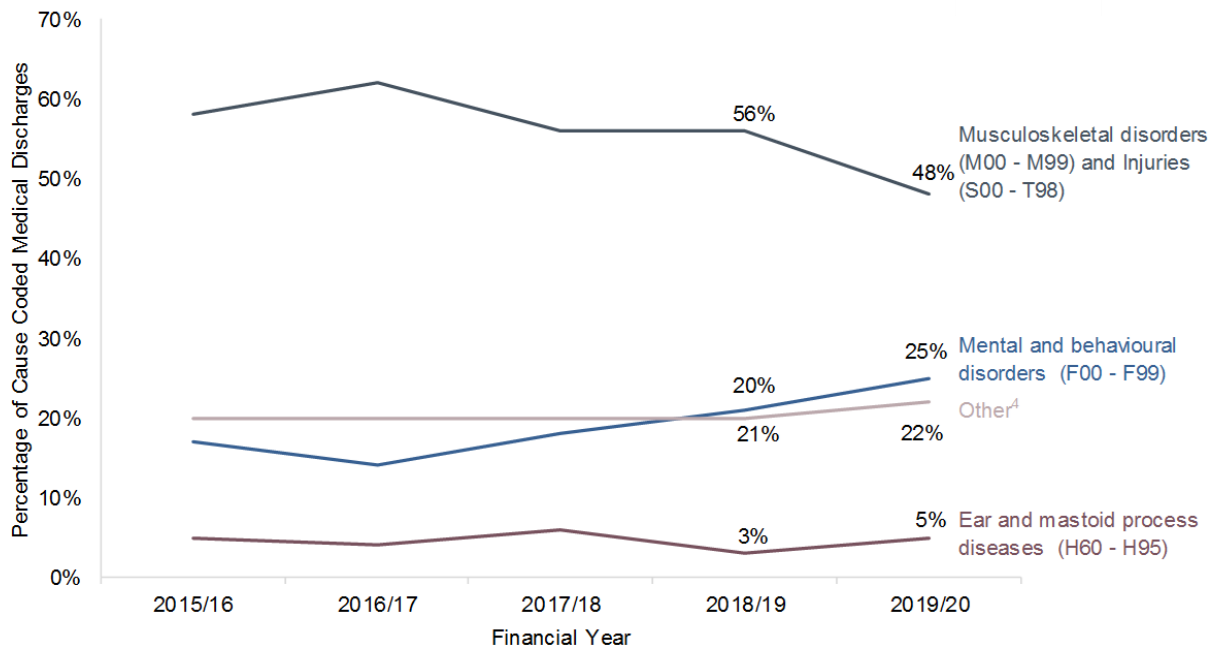
Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] Percentages are calculated from only personnel who have a principal condition recorded.
[3] Due to rounding, percentages might not add to 100%.
[4] Includes 15 cause code groups; each accounting for a maximum of 4% of all Naval Service cause coded medical discharges.

Figure 8 shows the proportions of cause coded medical discharges by principal ICD-10 cause code groups in between 1 April 2019 and 31 March 2020.

Half of the medical discharges as a result of Musculoskeletal Disorders and Injuries were linked to the leg, back, and ankle and foot (n = 86). The high numbers of medical discharges for these conditions is likely to be due to physical activity required in many areas of the Naval Service; training on uneven ground carrying heavy loads, adopting firing positions, climbing ladders and working on a moving platform aboard ship. Back pain is also the leading cause of disability in the UK and global populations[9].
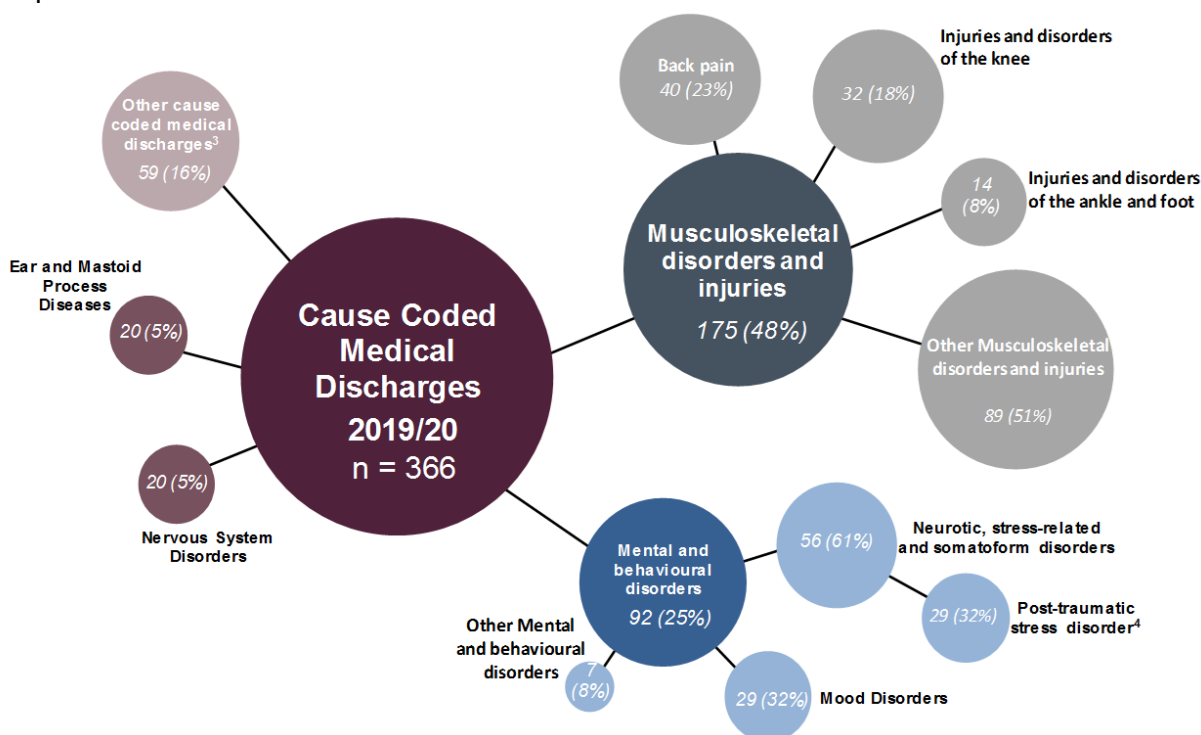
Naval Service Continued

The remaining half of medical discharges due to Musculoskeletal Disorders and Injuries (n = 89) were spread across a wide range of disorders and injuries, with no large numbers of discharges in one particular body region or medical condition.

Most medical discharges as a result of Mental and Behavioural Disorders were due to Neurotic, Stress and Somatoform Disorders and Mood Disorders. Neurotic Disorders were the most prevalent mental disorder assessed at MOD specialist health services (DCMHs) in 2019/20[8].

Post-Traumatic Stress Disorder (PTSD) accounted for one third of all Mental and Behavioural Disorder medical discharges whereas a PTSD diagnosis only accounted for less than one in 10 assessments by MOD specialist mental health clinicians[8]. This difference may reflect the severity of PTSD and potential impact on a military career.

Figure 8: UK regular Naval Service[1] medical discharges by principal ICD-10 cause code group, numbers and percentages[2,3]
1 April 2019 to 31 March 2020

Source: DMICP, FMed 23 and JPA
[1] Includes Royal Navy and Royal Marines.
[2] Due to rounding, percentages might not add to 100%.
[3] Includes 15 cause code groups; each accounting for a maximum of 4% of all Naval Service cause coded medical discharges.
[4] Post-traumatic stress disorder discharges are shown as a percentage of *Mental and Behavioural Disorders* and not *Neurotic Stress-related and Somatoform Disorders*.

When considering both the principal and contributory causes of discharge in the Naval Service between 1 April 2019 to 31 March 2020:

- Musculoskeletal Disorders and Injuries were present in over half of discharges (n = 206, 56%).
- Mental and Behavioural Disorders were present in over a third of discharges (n = 129, 35%).
- While the top two principal and contributory causes of discharge were consistent in both the Royal Navy and Royal Marines, the third most common causes differed:
  - In the Royal Navy, Nervous System Disorders were the third most common cause (n = 27, 11%).
  - In the Royal Marines, Ear and Mastoid Process Diseases were the third most common cause (n = 23, 19%).

Further information on the principal and contributory causes of medical discharge in the UK regular Naval Service can be found in the supplementary tables to this report (**Annex A1.2, A2.2, A2.3, A3.2 and A3.3**).

Army

## Trends in Medical Discharges

| | Between 1 April 2019 to 31 March 2020, there were **1,043** medical discharges from the army; a rate of **13 per 1,000** personnel. This rate was **significantly lower** compared to last year. |

Figure 9 shows the number and rates of army medical discharges over time from 1 April 2010 to 31 March 2020:

▲ Between 1 April 2010 and 31 March 2015, the rate of medical discharge among army personnel more than trebled (from 6 to 23 per 1,000 personnel). This is likely to be the result of improved management of the recovery care pathway with the establishment of the Army Recovery Capability (ARC). The ARC was established to manage the transition of ill and injured personnel either back to active service, or to civilian life. Additionally, it may be the result of the completion of treatment of personnel injured in Iraq and Afghanistan, and limited availability of roles suitable for personnel with medical restrictions.

▲ Since 2016/17 there has been a downward trend in the rate of army medical discharges and the latest annual rate was the lowest in eight years. This may be due to the availability of roles suitable for personnel with medical restrictions. In 2019/20 the army updated their medical employment policy placing greater emphasis on retention and transfer for personnel with medical limitations into roles suitable for their individual needs, either within their unit, cap badge or elsewhere in the army, thus retaining personnel who may previously have been medically discharged.

Figure 9: UK regular army medical discharges by financial year, numbers and crude rates per 1,000 personnel at risk
1 April 2010 to 31 March 2020
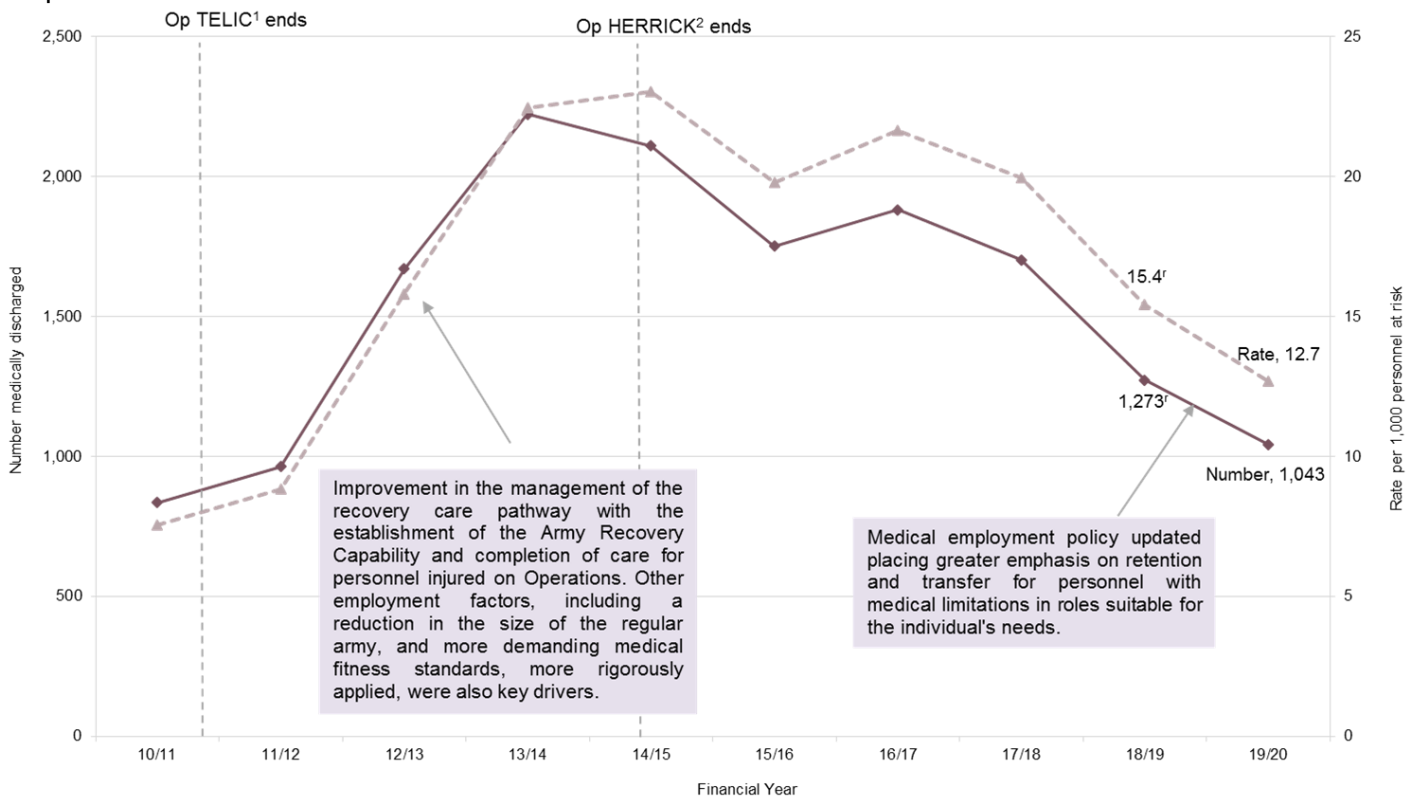
Source: DMICP, FMed 23 and JPA
[1] Operation TELIC is the name for UK operations in Iraq which began March 2003 and ended on 21 May 2011.
[2] Operation HERRICK is the name for UK operations in Afghanistan which began 1 April 2006 and ended on 30 November 2014.
[r] Indicates a revision to previously published data.

Army Continued

Demographic Risk Groups

Between 1 April 2019 to 31 March 2020, the rate of medical discharge was significantly higher for regular army personnel within specific demographic groups (**Table 3**):
- Females
- Other ranks
- Untrained personnel

Table 3: UK regular army medical discharges by age group[1], gender[1], rank[1] and training status[1], numbers and rates per 1,000 personnel at risk
1 April 2019 to 31 March 2020

	2019/20		Rate of UK regular army personnel medically discharged
	n	r	
Number of UK regular army personnel medically discharged	**1,043**	**12.7**	
Age			
Aged under 20	75	12.5	
Aged 20-24	224	13.6	
Aged 25-29	231	12.7	
Aged 30-34	210	13.2	
Aged 35-39	159	12.3	
Aged 40-44	94	12.3	
Aged 45-49	33	9.9	
Aged 50 and over	17	9.2	
Gender			
Male	915	12.3	
Female*	128	16.8	
Rank			
Officer	34	2.6	
Other Rank*	1,009	14.6	
Training Status			
Trade Trained[2]	822	11.2	
Untrained*	221	25.7	

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[2] Trade Trained - in this report those that have completed both Phase 1 and 2 training for Army (see full definition in Glossary).
* Groups found to be at a significantly higher risk using a z-test for proportions at a 95% confidence level.

The higher rates of presentation among the demographic groups seen in Table 3 were broadly similar to those seen in previous years. **Figures 10** to **13** present the army medical discharges by demographic group over time, with possible explanations for the differences observed.

Army Continued

Figure 10: UK regular army medical discharges by age group[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020
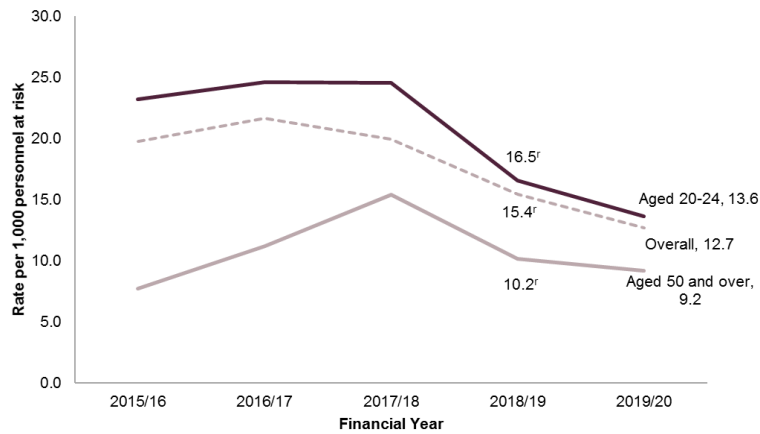
In 2019/20 there was **no significant difference** in medical discharge rates between age groups.

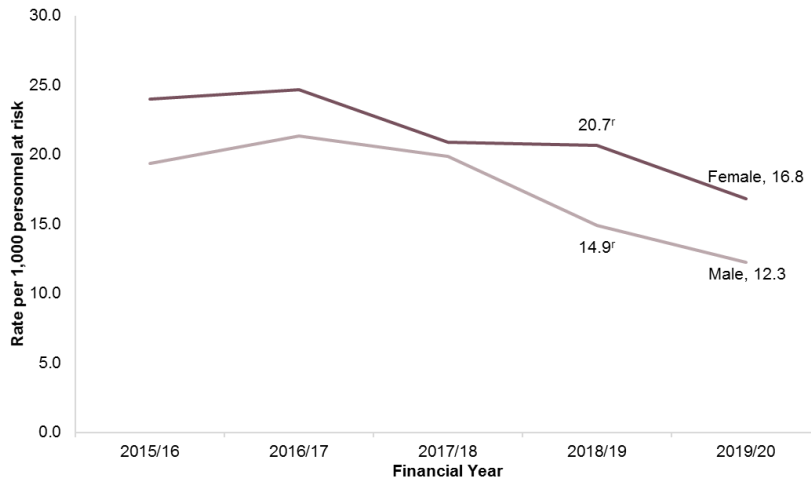Other age groups are presented in graphs within the supplementary tables.

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data

Figure 11: UK regular army medical discharges by gender[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020

Army **females had significantly higher rates** of medical discharge than males in all years except 2017/18.

The higher rate of medical discharges in female personnel may be due to their higher risk of sustaining Musculoskeletal Disorders and Injuries[4], and higher presentation of mental health disorders[8] (the leading two causes of medical discharge).
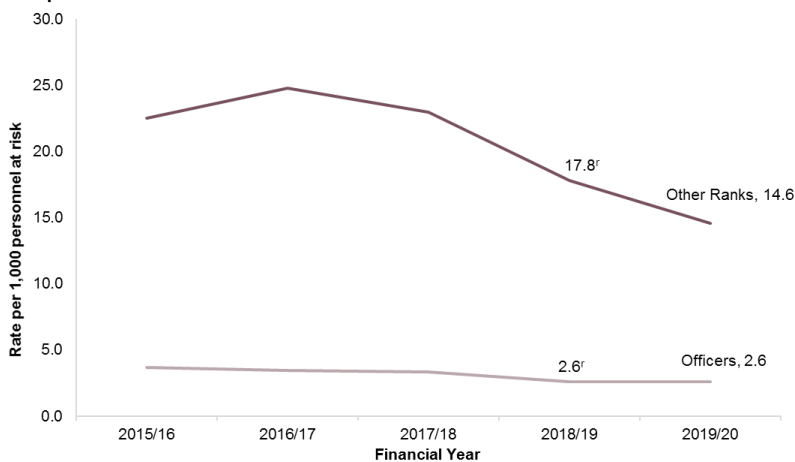
Source: DMICP, FMed 23 and JPA
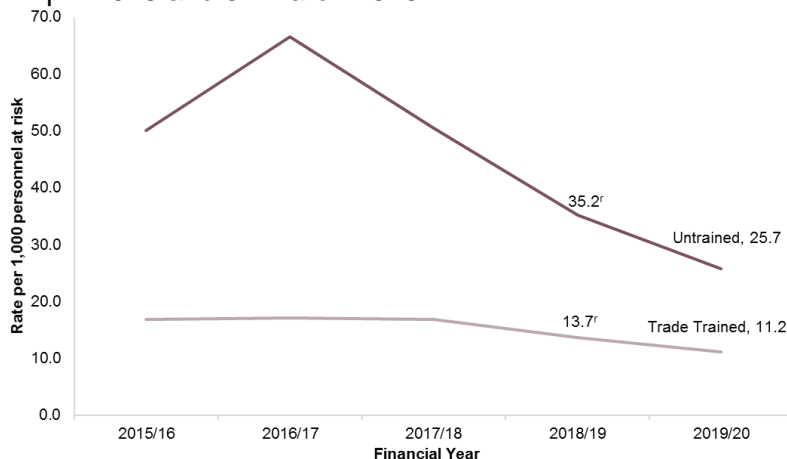[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data

Army Continued

Figure 12: UK regular army medical discharges by rank[1] and financial year, rates per 1,000 personnel at risk

1 April 2015 and 31 March 2020

The rate of medical discharge among **other ranks was significantly higher** than for officers throughout the period presented.

Officers are more likely to be employed in office-based roles than other ranks and are more likely to be employed in or can be reassigned to duties that are compatible with their individual medical limitations.

Source: DMICP, FMed 23 and JPA

[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

[r] indicates a revision to previously published data.

Figure 13: UK regular army medical discharges by training status[1] and financial year, rates per 1,000 personnel at risk

1 April 2015 and 31 March 2020

Whilst rates among untrained personnel has fallen since 2016/17, the rate of medical discharge in **untrained personnel remained significantly higher** compared to trained personnel throughout the period presented. The reasons for the falling rate are unclear.

The rate of medical discharge was also higher in untrained Royal Marines population which may be due to the similarly intensive nature of the army and Royal Marines training programmes.

Source: DMICP, FMed 23 and JPA

[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

[r] indicates a revision to previously published data

The higher rate of medical discharges for untrained personnel was broadly consistent with health and safety reporting[3], which found untrained personnel in the army were at a statistically higher risk of reporting injury than trained personnel.

Causes of Medical Discharges

When UK armed forces personnel are medically discharged, the medical reason for the discharge is recorded and categorised using a coding system known as ICD-10 (see glossary). **Table 4** presents this information by principal ICD-10 cause code group (the chapter within which the condition is categorised) and for the past five years 1 April 2015 and 31 March 2020.

51% of medical discharges (approx. 1 in 2) were due to **Musculoskeletal Disorders and Injuries**.

33% of medical discharges (approx. 1 in 3) were due to **Mental and Behavioural Disorders**.

Table 4: UK regular army medical discharges by principal ICD-10 cause code group and financial year, numbers and percentages[1]
1 April 2015 and 31 March 2020

	All		2015/16		2016/17		2017/18		2018/19		2019/20	
	n	%	n	%	n	%	n	%	n	%	n	%
All medical discharges	7,648		1,750		1,881 ʳ		1,701 ʳ		1,273 ʳ		1,043	
All cause coded medical discharges	7,235	100	1,695	100	1,807 ʳ	100	1,645 ʳ	100	1,237 ʳ	100	851 ᵖ	100
Infectious and parasitic diseases (A00 - B99)	13	<1	5	<1	~	<1	~	<1	~	<1	0 ᵖ	0
Neoplasms (C00 - D48)	56	<1	16	<1	14	<1	7 ʳ	<1	10	<1	9 ᵖ	1
Blood disorders (D50 - D89)	~	<1	~	<1	~	<1	~	<1	~	<1	~ ᵖ	<1
Endocrine, nutritional and metabolic diseases (E00 - E90)	46	<1	11	<1	~	<1	~	<1	~	<1	8 ᵖ	<1
- Of which diabetes (E10-E14)	25	<1	8	<1	8 ʳ	<1	~	<1	~	<1	~ ᵖ	<1
- Of which insulin-dependent (E10)	15	<1	5	<1	~	<1	~	<1	~	<1	~ ᵖ	<1
- Of which non-insulin-dependent (E11)	~	<1	0	0	~	<1	~	<1	0	0	~ ᵖ	<1
Mental and behavioural disorders (F00 - F99)	1,806	25	363	21	385 ʳ	21 ʳ	418	25	359 ʳ	29	281 ᵖ	33
- Of which mood disorders (F30 - F39)	543	8	105	6	105 ʳ	6	114	7	115 ʳ	9	104 ᵖ	12
- Of which depression (F32 & F33)	476	7	82	5	94 ʳ	5	101	6	100 ʳ	8	99 ᵖ	12
- Of which neurotic, stress related and somatoform (F40 - F48)	1,131	16	227	13	243 ʳ	13 ʳ	272	17	223 ʳ	18	166 ᵖ	20
- Of which post-traumatic stress disorder (PTSD) (F431)	745	10	156	9	173 ʳ	10	169 ʳ	10	136 ʳ	11	111 ᵖ	13
- Of which adjustment disorder (F432)	166	2	24	1	30 ʳ	2	39	2	42	3	31 ᵖ	4
Nervous system disorders (G00 - G99)	158	2	39	2	37	2	38 ʳ	2 ʳ	24	2	20 ᵖ	2
- Of which epilepsy (G40)	36	<1	12	<1	9	<1	~	<1	6	<1	~ ᵖ	<1
Eye and adnexa diseases (H00 - H59)	25	<1	8	<1	7	<1	~	<1	~	<1	~ ᵖ	<1
- Of which blindness, low vision and visual disturbance (H53-H54)	7	<1	~	<1	~	<1	~	<1	~	<1	~ ᵖ	<1
Ear and mastoid process diseases (H60 - H95)	241	3	62	4	65	4	58	4 ʳ	39	3	17 ᵖ	2
- Of which hearing loss (H833 & H90 - H91)	196	3	51	3	54	3	48	3	30	2	13 ᵖ	2
- Of which noise-induced hearing loss (H833)	49	<1	17	1	12	<1	11	<1	~	<1	~ ᵖ	<1
- Of which tinnitus (H931)	26	<1	11	<1	5	<1	~	<1	~	<1	~ ᵖ	<1
Circulatory system disorders (I00 - I99)	141	2	36	2	40 ʳ	2	27 ʳ	2	23 ʳ	2	15 ᵖ	2
Respiratory system disorders (J00 - J99)	73	1	22	1	20	1	13	<1	11	<1	7 ᵖ	<1
- Of which asthma (J45 & J46)	63	<1	19	1	17	<1	12	<1	9	<1	6 ᵖ	<1
Digestive system disorders (K00 - K93)	95	1	28	2	19	1	25	2 ʳ	14	1	9 ᵖ	1
Skin and subcutaneous tissue diseases (L00 - L99)	87	1	16	<1	34	2	17	1	7	<1	13 ᵖ	2
Musculoskeletal disorders (M00 - M99) and injuries (S00 - T98)	4,169	58	1,016	60	1,072 ʳ	59	950 ʳ	58	693 ʳ	56	438 ᵖ	51
- Of which injuries and disorders of the knee[2]	779	11	179	11	217 ʳ	12	173 ʳ	11	134 ʳ	11	76 ᵖ	9
- Of which knee pain (M2556)	312	4	78	5	83	5	69 ʳ	4	46	4	36 ᵖ	4
- Of which back pain (M544 - M545, M549)	466	6	100 ʳ	6	105 ʳ	6 ʳ	118 ʳ	7	74 ʳ	6	69 ᵖ	8
- Of which low back pain (M544 - M545)	409	6	83 ʳ	5	91 ʳ	5	104	6	67 ʳ	5	64 ᵖ	8
- Of which injuries and disorders of the ankle and foot[3]	414	6	91	5	106 ʳ	6	103	6	76	6	38 ᵖ	4
- Of which heat injury (T67)	16	<1	~	<1	~ ʳ	<1	5	<1	5	<1	~ ᵖ	<1
- Of which cold injury (T68 & T69)	338	5	90	5	98	5	77	5	55	4	18 ᵖ	2
Genitourinary system diseases (N00 - N99)	41	<1	9	<1	7	<1	12 ʳ	<1	8	<1	5 ᵖ	<1
Pregnancy, childbirth and puerperium (O00 - O99)	~	<1	0	0	0	0	~	<1	0	0	0 ᵖ	0
Congenital malformations (Q00 - Q99)	25	<1	~	<1	8	<1	~	<1	~	<1	~ ᵖ	<1
Clinical and laboratory findings (R00 - R99)	213	3	46	3	70	4	48 ʳ	3	27 ʳ	2	22 ᵖ	3
External Causes of Morbidity and Mortality (V01 - Y98)	0	0	0	0	0	0	0	0	0	0	0 ᵖ	0
Factors influencing health status (Z00 - Z99)	31	<1	7	<1	12	<1	6 ʳ	<1	~	<1	~ ᵖ	<1
No details held on principal condition for medical boarding	413		55		74 ʳ		56 ʳ		36 ʳ		192 ᵖ	
Withheld consent	0		0		0		0		0		0	

Source: DMICP, FMed 23 and JPA

[1] Data presented as "<1%" represent a percentage greater than 0% but smaller than 1%.
[2] Injuries and disorders of the knee have been compiled using ICD-10 codes, please see annex for specific codes.
[3] Injuries and disorders of the ankle and foot have been compiled using ICD-10 codes, please see annex for specific codes.
~ In line with JSP 200 on statistical disclosure, figures less than five have been suppressed. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.
ʳ indicates a revision to previously published data.
ᵖ indicates provisional data.

Principal cause is the main medical cause of the discharge.

Contributory causes include any other conditions identified that would result in a medical discharge.

Army Continued

Please note that due to COVID-19 limiting access to places of work, Defence Statistics Health were not able to access all of the paperwork confirming cause of medical discharge for trained army personnel between 1 April 2019 and 31 March 2020. Therefore, cause information for this latest year should be considered provisional and subject to change.

Figure 14 shows the percentage of principal cause coded medical discharges between 1 April 2015 and 31 March 2020. Between 1 April 2015 and 31 March 2020, Musculoskeletal Disorders and Injuries were the largest cause of principal cause coded army medical discharges, accounting for 58% of all medical discharges. This has remained consistent since reporting began, however Musculoskeletal Disorders and Injuries medical discharges has fallen as a proportion of all medical discharges over the past five years.

Mental and Behavioural Disorders has remained the second largest principal cause of army medical discharges, with the proportion increasing each year since 2012/13.

This finding is in line with other militaries the United States Army[5] and Canada[6] also reported Musculoskeletal Disorders and Injuries and Mental and Behavioural Disorders as the two most common causes for medical release.

Please note that each medical discharge can only have one principal condition and a percentage decrease reduction in one cause code group may appear as an increase in another. Therefore, it is important to consider all cause code groups when looking at trends over time.

Figure 14: UK regular army medical discharges by principal ICD-10 cause code group and financial year, percentage of all medical discharges[1]
1 April 2015 and 31 March 2020
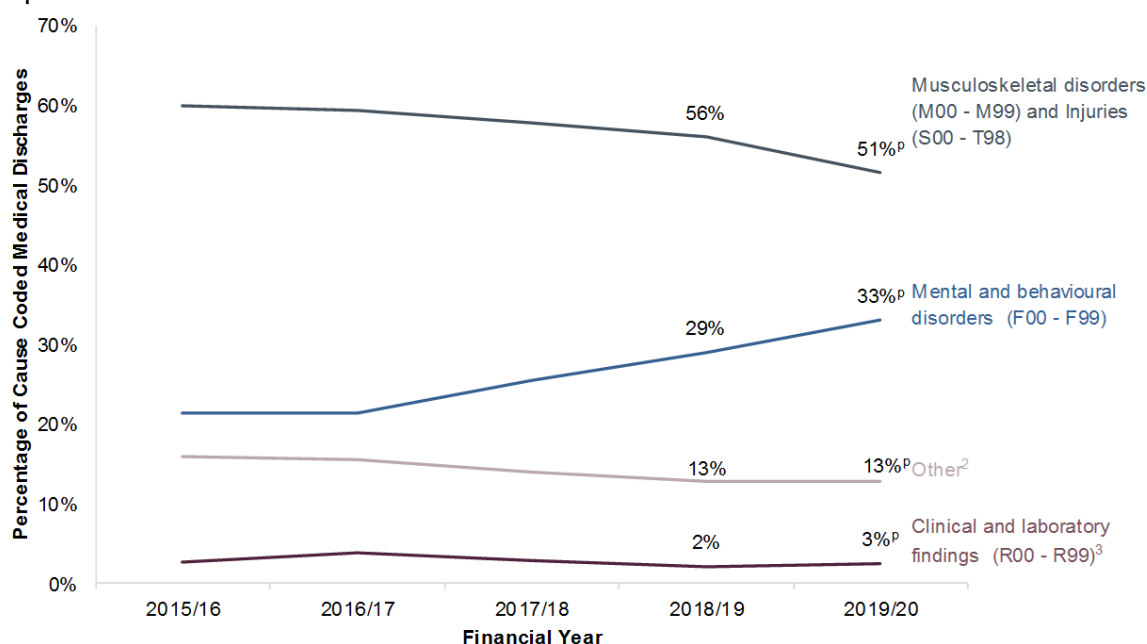
Source: DMICP, FMed 23 and JPA
[1] Due to rounding, percentages might not add to 100%.
[2] Includes 17 cause code groups; each accounting for a maximum of 3% of all regular army cause coded medical discharges.
[3] Clinical and Laboratory Findings include symptoms and abnormal clinical findings - such as irregular heart beat and abdominal pain - which are ill-defined and may not have a diagnosis that can be elsewhere classified.
[p] indicates provisional data

Figure 15 presents the proportions of cause coded medical discharges by principal ICD-10 cause code groups between 1 April 2019 to 31 March 2020.

The greatest proportions of Musculoskeletal Disorders and Injuries were linked to the leg (below and including the knee) and back. The prevalence of personnel medically discharged for disorders and injuries to the leg may be the result of the physical activity required of many army personnel, such as training on hard ground carrying heavy loads, marching and assuming fire positions. Back pain is prevalent in the general population and is the leading cause of disability in the UK and global populations[9].

Army Continued

The remaining half of medical discharges due to Musculoskeletal Disorders and Injuries (n = 237) were spread across a wide range of disorders and injuries, with no large numbers of discharges in one particular body region or medical condition.

The majority of medical discharges due to Mental and Behavioural Disorders between 1 April 2019 to 31 March 2020 were the result of Neurotic, Stress Related and Somatoform Disorders (n = 166, 59%). Neurotic Disorders were the most prevalent mental disorder assessed at MOD specialist health services (DCMHs) in 2019/20[8].

Post-Traumatic Stress Disorder (PTSD) accounted for 40% of all Mental and Behavioural Disorder medical discharges whereas a PTSD diagnosis only accounted for less than one in 10 assessments by MOD specialist mental health clinicians[8]. This difference may reflect the severity of PTSD and potential impact on a military career.

Figure 15: UK regular army medical discharges by principal ICD-10 cause code group, numbers and percentages[1,2]
1 April 2019 to 31 March 2020
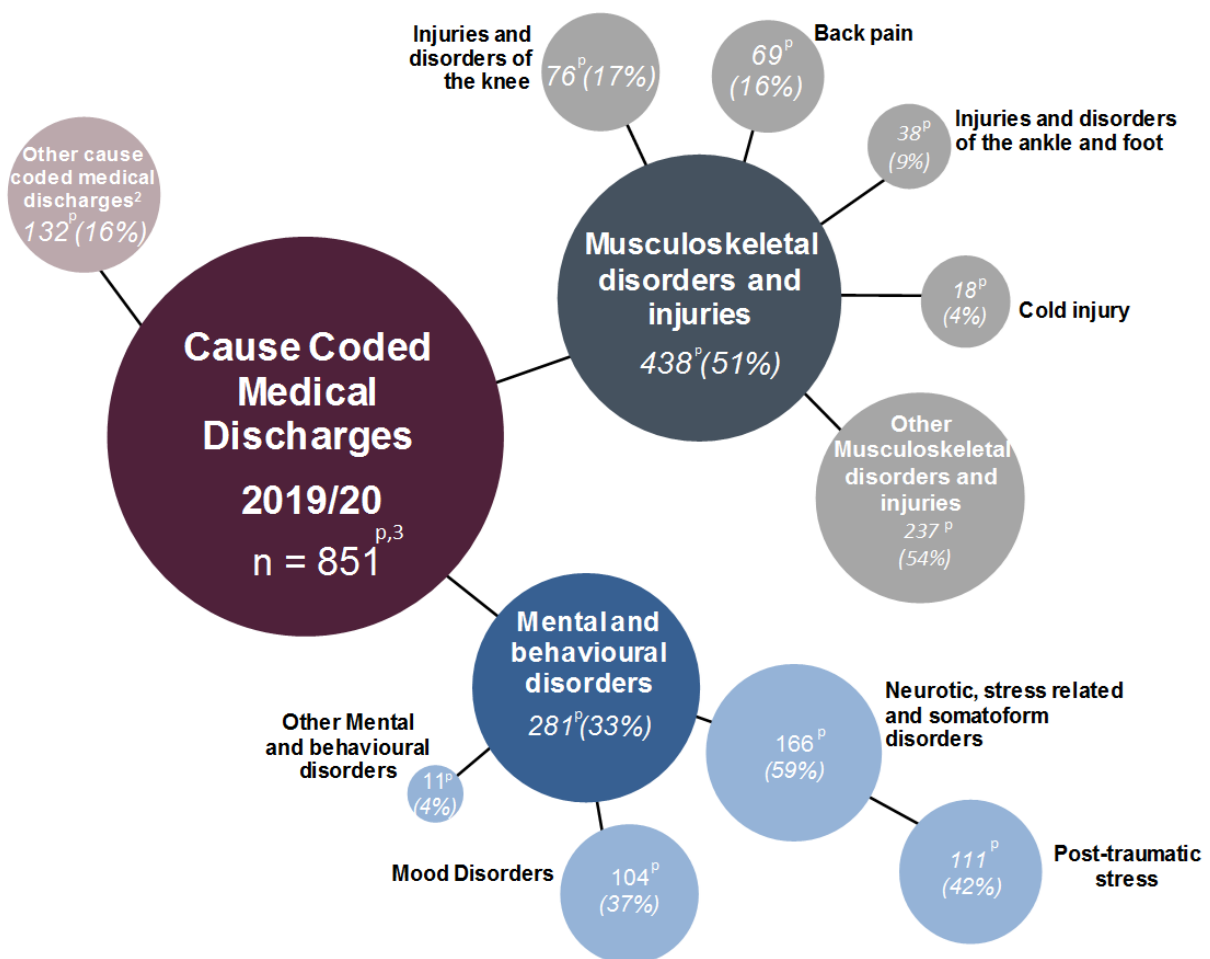
Source: DMICP, FMed 23 and JPA
[1] Due to rounding, percentages might not add to 100%.
[2] Includes 17 cause code groups; each accounting for a maximum of 3% of all regular army cause coded medical discharges.
[3] Total number of army discharges were 1,043, however 192 personnel had no details on principal condition for medical boarding.
[4] *Post-traumatic Stress Disorder* discharges are shown as a percentage of *Mental and Behavioural Disorders* and not *Neurotic Stress-related and Somatoform Disorders.*
[P] indicates provisional data

Army Continued

When considering both the principal and contributory cause of discharge between 1 April 2019 to 31 March 2020:

- Musculoskeletal Disorders and Injuries were present in nearly two thirds of discharges (n = 557, 65%).
- Mental and Behavioural Disorders were present in nearly half of all discharges (n = 368, 43%).
- Factors Influencing Health Status were the third most prevalent cause (n = 135, 16%). This chapter includes information related to the social environment, personal history of injury and/or illness and presence of functional implants (e.g. pacemakers).

Defence Statistics receive more medical discharge information from paper forms (FMed 23s) for the army than the Naval Service and RAF. FMed 23s allow Defence Statistics to see free text entered by clinicians and occupational health practitioners which can provide greater granularity about the injuries/illnesses for which personnel are medically discharged. This additional information enables more detailed coding of the medical discharge which may fall within the Factors Influencing Health Status chapter. Therefore, a greater proportion of personnel in the army than other services have a contributory cause within the Factors Influencing Health Status chapter. Further information on the principal and contributory causes of medical discharge in the UK regular army can be found in the supplementary tables to this report.

RAF

## Trends in Medical Discharges

> **RAF**
>
> Between 1 April 2019 to 31 March 2020, there were **169** medical discharges from the RAF; a rate of **5 per 1,000** personnel.
> There was no change in the rate of medical discharge compared to last year.

Figure 16 shows the number and rates of RAF medical discharges over time from 1 April 2010 to 31 March 2020:

▲ The rate of medical discharges rose between 1 April 2010 and 31 March 2013. This may be due to the Strategic Defence and Security Review (SDSR) which reduced the number of roles available and may have limited the roles available therefore also reducing the scope of retaining personnel with limited deployability in alternative roles.

▼ The rate of medical discharges fell from 1 April 2013 and 31 March 2014. During this time the RAF were operating a retention positive approach which endeavoured to find alternative roles for personnel with limited deployability.

▲ The rate of medical discharge rose from 1 April 2015 to 31 March 2018. This increase may have been due to an increase in the capacity of RAF medical boards where the medical boards were clearing a backlog of medical boards from the previous year. The rate of discharge fell during 1 April 2018 to 31 March 2019 to a level more comparable with 2016/17.

Figure 16: UK regular RAF medical discharges by financial year, numbers and crude rates per 1,000 personnel at risk
1 April 2010 to 31 March 2020
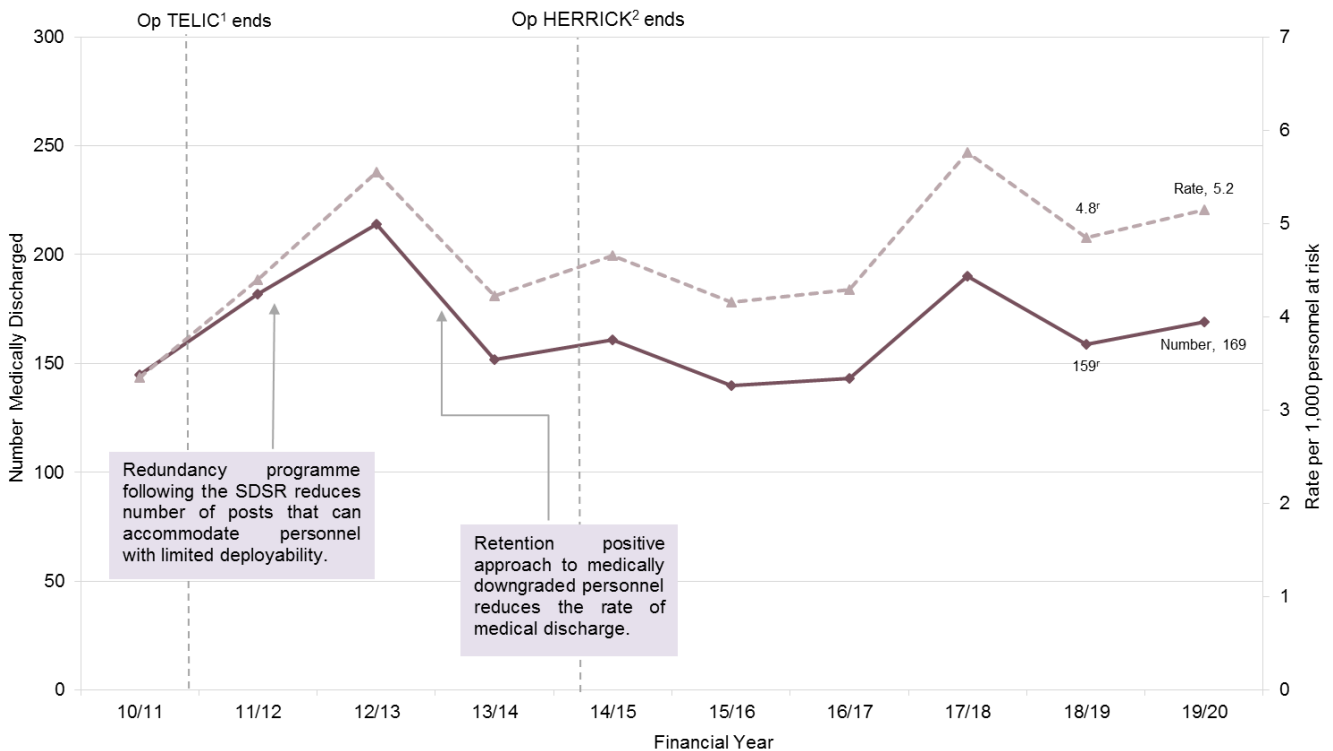
Source: DMICP, FMed 23 and JPA
[1] Operation TELIC is the name for UK operations in Iraq which began March 2003 and ended on 21 May 2011.
[2] Operation HERRICK is the name for UK operations in Afghanistan which began 1 April 2006 and ended on 30 November 2014.

RAF Continued

Demographic Risk Groups

Between 1 April 2019 to 31 March 2020, the rate of medical discharge was significantly higher for Regular RAF personnel within specific demographic groups (**Table 5**):
- Females
- Other ranks

Table 5: UK regular RAF medical discharges by age group[1], gender[1], rank[1] and training status[1], numbers and rates per 1,000 personnel at risk
1 April 2019 to 31 March 2020

	2019/20		Rate of UK regular RAF personnel medically discharged
	n	r	
Number of UK regular RAF personnel medically discharged	**169**	**5.2**	
Age			
Aged under 20	10	8.5	
Aged 20-24	14	2.8	
Aged 25-29	27	4.3	
Aged 30-34	37	6.1	
Aged 35-39	33	5.8	
Aged 40-44	24	6.3	
Aged 45-49	17	6.5	
Aged 50 and over	7	3.1	
Gender			
Male	115	4.1	
Female*	54	11.2	
Rank			
Officer	18	2.3	
Other Rank*	151	6.0	
Training Status			
Trained	150	5.0	
Untrained	19	6.3	

Source: DMICP, FMed 23 and JPA
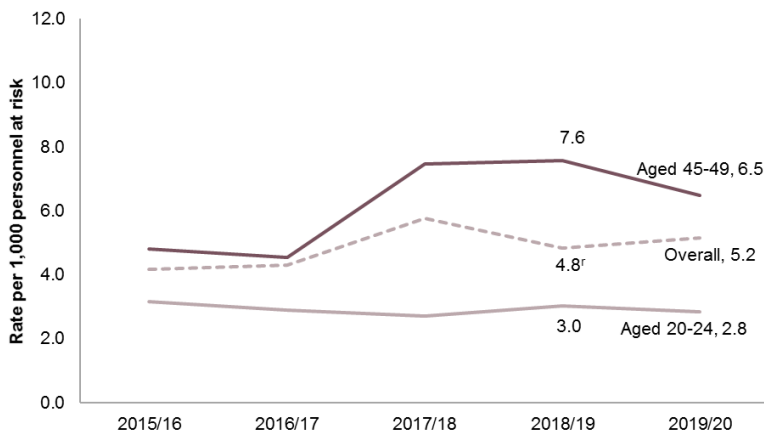[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
* Groups found to be at a significantly higher risk using a z-test for proportions at a 95% confidence level.

Figures 17 to **20** present RAF medical discharges for each demographic group between 1 April 2015 and 31 March 2020 with possible explanations for the differences observed.

RAF Continued

Figure 17: UK regular RAF medical discharges by age group[1] and financial year, rates per 1,000 personnel
1 April 2015 and 31 March 2020

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

There were **no significant differences** between age groups in 2019/20.

Personnel aged 45 to 49 consistently had a higher rate of medical discharge than the overall rate whereas personnel aged 20 to 24 have consistently had a lower rate. It should be noted that the underlying numbers are low and are therefore more susceptible to large percentage changes.

Figure 18: UK regular RAF medical discharges by gender[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020
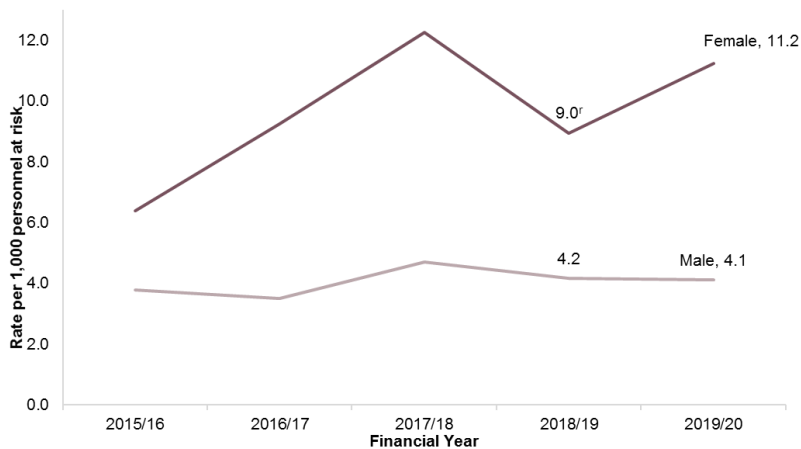
Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data.

Females had significantly higher rates of medical discharge than males for all years presented.

The higher rate of medical discharges in female personnel may be due to their higher risk of sustaining Musculoskeletal Disorders and Injuries[4], and higher presentation of mental health disorders[8] (the leading two causes of medical discharge).

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Figure 19: UK regular RAF medical discharges by rank[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020

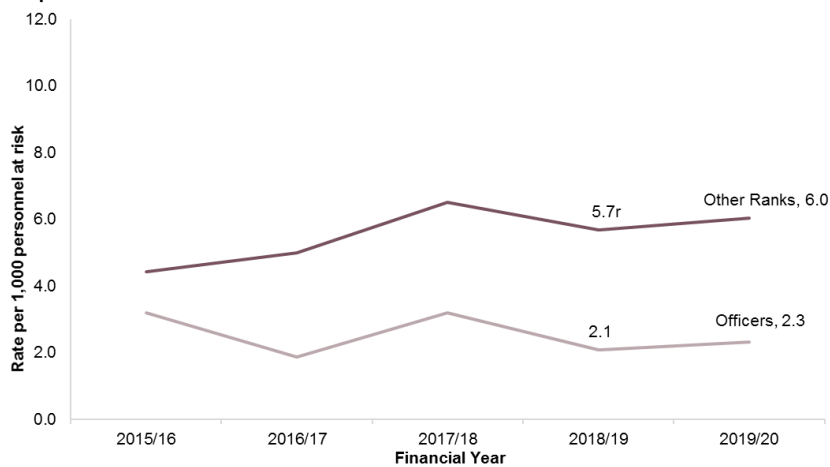Since 2016/17, **other ranks had significantly higher** rates of medical discharge than officers.

Officers are more likely to be employed in or can be reassigned to alternative duties that can be continued with certain injuries and illnesses.

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data.

Figure 20: UK regular RAF medical discharges by training status[1] and financial year, rates per 1,000 personnel at risk
1 April 2015 and 31 March 2020

There was **no significant difference** between training status in 2019/20. The fluctuation shown in the rate of discharge among the untrained population may be a result of the small numbers involved; in total over the five-year period presented, only 68 untrained RAF personnel were medically discharged, compared to 733 trained personnel.
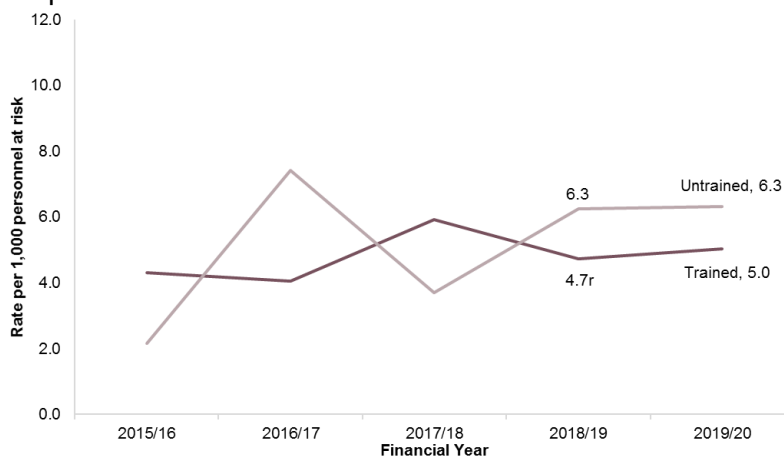
Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[r] indicates a revision to previously published data.

RAF Continued

Causes of Medical Discharges

When UK armed forces personnel are medically discharged, the medical reason for the discharge is recorded and categorised using a coding system known as ICD-10 (see glossary). **Table 6** shows this information by principal ICD-10 cause code group (the chapter within which the condition is categorised) and for the past five years 1 April 2015 and 31 March 2020.

43% of medical discharges were due to **Mental and Behavioural Disorders**.

39% of medical discharges were due to **Musculoskeletal Disorders and Injuries**.

Table 6: UK regular RAF medical discharges by principal ICD-10 cause code group and financial year, numbers and percentages[1]

1 April 2015 and 31 March 2020

	All		2015/16		2016/17		2017/18		2018/19		2019/20	
	n	%	n	%	n	%	n	%	n	%	n	%
All medical discharges	**801**		**140**		**143** ᶜ		**190** ᶜ		**159** ᶜ		**169**	
All cause coded medical discharges	**797**	**100**	**136**	**100**	**143** ᶜ	**100**	**190** ᶜ	**100**	**159** ᶜ	**100**	**169**	**100**
Infectious and parasitic diseases (A00 - B99)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Neoplasms (C00 - D48)	**14**	**2**	~	1	~	2	~	1 ᶜ	~	2	~	2
Blood disorders (D50 - D89)	**~**	**<1**	0	0	~	<1	0	0	~	<1	0	0
Endocrine, nutritional and metabolic diseases (E00 - E90)	**6**	**<1**	0	0	~	1	~	<1	0	0	~	2
- Of which diabetes (E10-E14)	**~**	**<1**	0	0	~	<1	~	<1	0	0	~	1
- Of which insulin-dependent (E10)	**~**	**<1**	0	0	~	<1	~	<1	0	0	0	0
- Of which non-insulin-dependent (E11)	**~**	**<1**	0	0	0	0	0	0	0	0	~	1
Mental and behavioural disorders (F00 - F99)	**273**	**34**	38	28	42 ᶜ	29 ᶜ	68 ᶜ	36	52 ᶜ	33	73	43
- Of which mood disorders (F30 - F39)	**114**	**14**	18	13	14	10 ᶜ	34	18 ᶜ	17	11 ᶜ	31	18
- Of which depression (F32 & F33)	**104**	**13**	17	13	13	9	30	16 ᶜ	15	9	29	17
- Of which neurotic, stress related and somatoform (F40 - F48)	**137**	**17**	17	13	23 ᶜ	16 ᶜ	29 ᶜ	15 ᶜ	31 ᶜ	19 ᶜ	37	22
- Of which post-traumatic stress disorder (PTSD) (F431)	**58**	**7**	9	7	9 ᶜ	6 ᶜ	10 ᶜ	5 ᶜ	14	9	16	9
- Of which adjustment disorder (F432)	**26**	**3**	~	1	7 ᶜ	5	6	3	6 ᶜ	4	~	3
Nervous system disorders (G00 - G99)	**44**	**6**	9	7	7	5	12	6	7	4	9	5
- Of which epilepsy (G40)	**5**	**<1**	0	0	~	1	~	2	0	0	0	0
Eye and adnexa diseases (H00 - H59)	**~**	**<1**	~	<1	~	<1	~	<1	~	<1	0	0
- Of which blindness, low vision and visual disturbance (H53-H54)	**~**	**<1**	~	<1	0	0	0	0	0	0	0	0
Ear and mastoid process diseases (H60 - H95)	**18**	**2**	7	5	5	3	~	<1	~	1	~	2
- Of which hearing loss (H833 & H90 - H91)	**14**	**2**	6	4	~	3	~	<1	0	0	~	2
- Of which noise-induced hearing loss (H833)	**~**	**<1**	0	0	~	<1	~	<1	0	0	0	0
- Of which tinnitus (H931)	**~**	**<1**	~	<1	~	<1	0	0	~	<1	0	0
Circulatory system disorders (I00 - I99)	**15**	**2**	~	3	~	2	5	3	~	1	~	<1
Respiratory system disorders (J00 - J99)	**~**	**<1**	0	0	~	<1	0	0	~	1	0	0
- Of which asthma (J45 & J46)	**~**	**<1**	0	0	~	<1	0	0	0	0	0	0
Digestive system disorders (K00 - K93)	**12**	**2**	0	0	~	2	~	2	~	1	~	2
Skin and subcutaneous tissue diseases (L00 - L99)	**8**	**1**	0	0	~	1	~	1	~	3 ᶜ	0	0
Musculoskeletal disorders (M00 - M99) and injuries (S00 - T98)	**363**	**46**	66	49	64 ᶜ	45	89 ᶜ	47 ᶜ	78	49	66	39
- Of which injuries and disorders of the knee[2]	**72**	**9**	11	8	10	7	22	12 ᶜ	17	11 ᶜ	12	7
- Of which knee pain (M2556)	**39**	**5**	6	4	~	3	18	9	9	6	~	<1
- Of which back pain (M544 - M545, M549)	**78**	**10**	16 ᶜ	12 ᶜ	12	8	15 ᶜ	8 ᶜ	24	15	11	7
- Of which low back pain (M544 - M545)	**66**	**8**	15 ᶜ	11 ᶜ	9	6	13 ᶜ	7 ᶜ	19	12	10	6
- Of which injuries and disorders of the ankle and foot[3]	**25**	**3**	~	3	~	3	~	2	6	4	7	4
- Of which heat injury (T67)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
- Of which cold injury (T68 & T69)	**12**	**2**	~	<1	~	2	5	3	~	2	0	0
Genitourinary system diseases (N00 - N99)	**~**	**<1**	~	<1	~	<1	0	0	0	0	~	<1
Pregnancy, childbirth and puerperium (O00 - O99)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	**~**	**<1**	~	<1	0	0	~	<1 ᶜ	~	<1	0	0
Clinical and laboratory findings (R00 - R99)	**27**	**3**	6	4	8	6 ᶜ	~	2	~	3 ᶜ	5	3
External Causes of Morbidity and Mortality (V01 - Y98)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Factors influencing health status (Z00 - Z99)	**~**	**<1**	~	<1	0	0	0	0	0	0	~	<1
No details held on principal condition for medical boarding	**3**		3		0		0		0		0	
Withheld consent	**1**		1		0		0		0		0	

Source: DMICP, FMed 23 and JPA

[1] Data presented as "<1%" represent a percentage greater than 0% but smaller than 1%.
[2] Injuries and disorders of the knee have been compiled using ICD-10 codes, please see annex for specific codes.
[3] Injuries and disorders of the ankle and foot have been compiled using ICD-10 codes, please see annex for specific codes.
~ In line with JSP 200 on statistical disclosure, figures less than five have been suppressed. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.
ᶜ indicates a revision to previously published data.

Principal cause is the main medical cause of the discharge.

**Contributory causes** include any other conditions identified that would result in a medical discharge.

RAF Continued

Figure 21 presents the percentage of principal cause coded medical discharges between 1 April 2015 and 31 March 2020.

Since reporting began, Musculoskeletal Disorders and Injuries was the largest principal cause of RAF medical discharges with Mental and Behavioural Disorders second. However, in 2019/20, Mental and Behavioural Disorders was higher than the proportion with Musculoskeletal Disorders and Injuries for the first time. Whilst the rate of personnel medically discharged due to Mental and Behavioural Disorders increased between 2018/19 and 2019/20, this was not a statistically significant change.

Please note that each medical discharge can only have one principal condition and a decrease in one cause code group may appear as an increase in another. Therefore, it is important to consider all cause code groups when looking at trends over time.

Figure 21: UK regular RAF medical discharges by principal ICD-10 cause code group and financial year, percentage of all medical discharges[1]
1 April 2015 and 31 March 2020
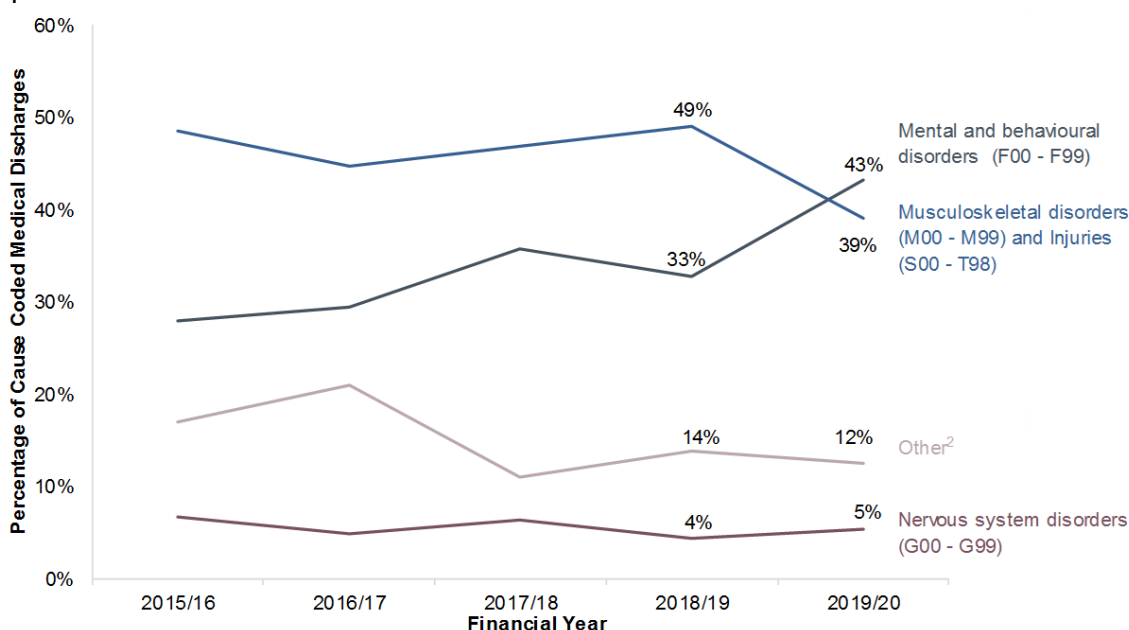
Source: DMICP, FMed 23 and JPA
[1] Due to rounding, percentages might not add to 100%.
[2] Includes 16 cause code groups; each accounting for a maximum of 3% of all RAF cause coded medical discharges

Figure 22 shows the proportions of cause coded medical discharges by principal ICD-10 cause code groups between 1 April 2019 and 31 March 2020.

The majority of medical discharges as a result of Mental and Behavioural Disorders were due to Neurotic, Stress and Somatoform Disorders, and Mood Disorders. Neurotic Disorders were the most prevalent mental disorder assessed at MOD specialist health services (DCMHs) in 2019/20[8].
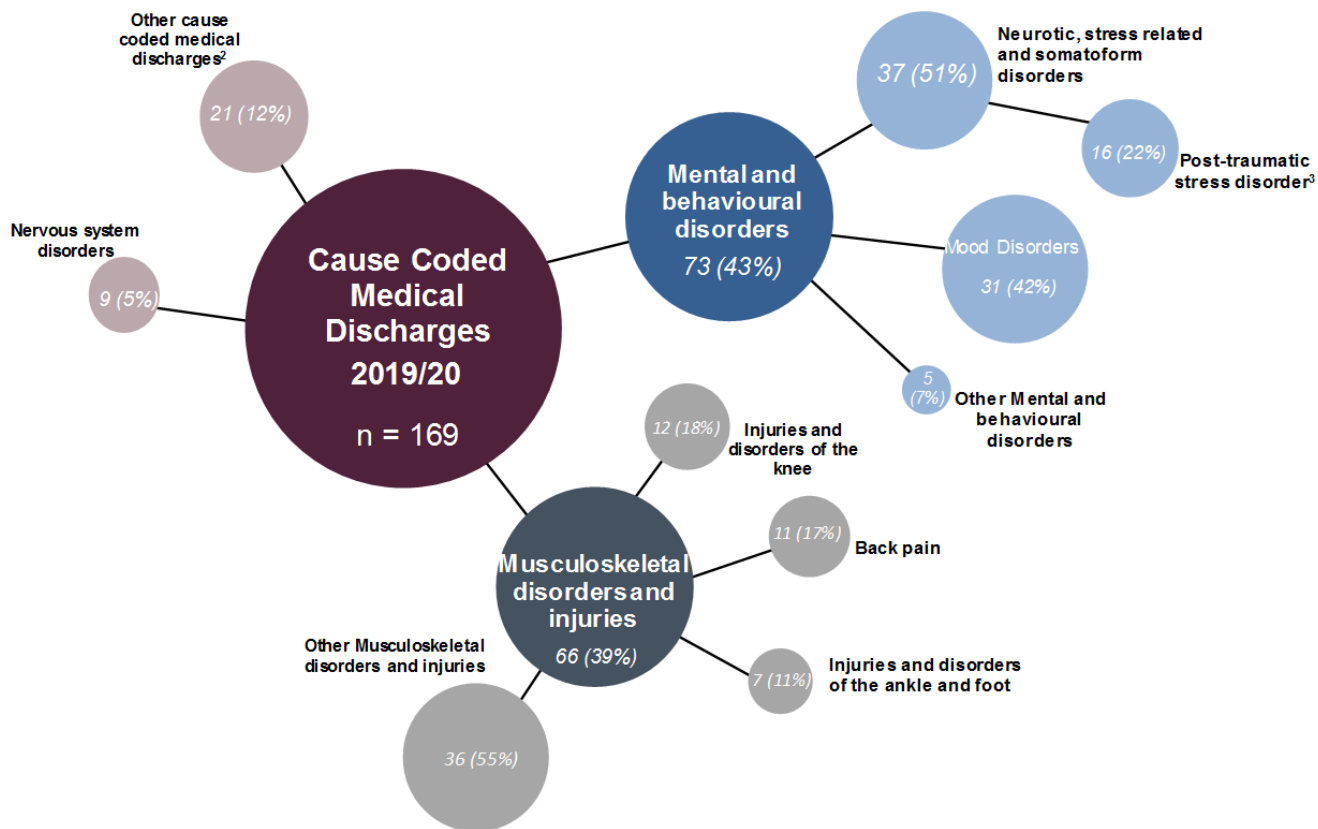
Post-Traumatic Stress Disorder (PTSD) accounted for one in five of all Mental and Behavioural Disorder medical discharges whereas a PTSD diagnosis only accounted for less than 5% of assessments by MOD specialist mental health clinicians[8]. This difference may reflect the severity of PTSD and potential impact on a military career.

Around half of the medical discharges as a result of Musculoskeletal Disorders and Injuries were linked to the leg, back, ankle and foot (n = 30). The high prevalence of personnel medically discharged for these conditions may be the result of the physical activity required of many RAF personnel, such as training on hard ground carrying heavy loads. Back pain is also the leading cause of disability in the UK and global populations[9].

The remaining half of discharges due to Musculoskeletal Disorders and Injuries (n = 36) were spread across a wide range of disorders and injuries, with no large numbers of discharges in one particular body region or medical condition.

RAF Continued

Figure 22: UK regular RAF medical discharges by principal ICD-10 cause code group, numbers and percentages[1,2]

1 April 2019 to 31 March 2020

Source: DMICP, FMed 23 and JPA
[1] Due to rounding, percentages might not add to 100%.
[2] Includes 16 cause code groups; each accounting for a maximum of 3% of all RAF cause coded medical discharges
[3] Post-traumatic stress disorder discharges are shown as a percentage of Mental and behavioural disorders and not Neurotic stress related and somatoform disorders.

When considering both the principal and contributory causes of discharge between 1 April 2019 and 31 March 2020:

- Mental and Behavioural Disorders were present in over half of discharges (n = 93, 55%)
- Musculoskeletal Disorders and Injuries were present in over half of discharges (n = 88, 52%).
- Factors influencing health status was the third most common cause of discharge (n = 28, 17%). This chapter includes information related to the social environment, personal history of injury and/or illness and presence of functional implants (e.g. pacemakers).

Further information on the principal and contributory causes of medical discharge in the UK regular RAF can be found in the supplementary tables to this report (**Annex A5.2**).

Glossary

Defence Medical Information Capability Programme (DMICP) is the MOD electronic primary health care patient record.

FMed 23 is the form completed whenever a medical board is held for a member of the UK armed forces.

Joint Personnel Administration (JPA) is the system used by the UK armed forces to deal with matters of pay, leave and other personnel administrative tasks. JPA replaced a number of single-Service IT systems and was implemented in April 2006 for the RAF, November 2006 for the Naval Service and April 2007 for the army.

Departments of Community Mental Health (DCMH) are specialised psychiatric services based on community mental health teams closely located with primary care service at sites in the UK and abroad.

International Statistical Classification of Diseases and Health-Related Disorders 10th edition (ICD-10) is the standard diagnostic tool for epidemiology, health management and clinical purposes.

Officer An officer is a member of the armed forces holding the Queen's Commission to lead and command elements of the forces. Officers form the middle and senior management of the armed forces. This includes ranks from Sub-Lt/2nd Lt/Pilot Officer up to Admiral of the Fleet/Field Marshal/Marshal of the Royal Air Force, but excludes Non-Commissioned officers.

Operation HERRICK is the name for UK operations in Afghanistan which started in April 2006. UK Forces are deployed to Afghanistan in support of UN authorised, NATO led International Security Assistance Force (IASF) mission and as part of the US-led Operation Enduring Freedom (OEF).

Operation TELIC is the name for UK operations in Iraq which started in March 2003 and finished on 21 May 2011. UK Forces were deployed to support the Government's objective to remove the threat that Saddam Hussein posed to his neighbours and his people and, based on 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 and freedom.

Other Ranks Other ranks are members of the Naval Service, army and Royal Air Force who are not officers but other ranks include Non-Commissioned officers.

Principal/Contributory Condition/Cause of Discharge
Principal condition/cause
The principal condition is the first principal ICD-10 code on medical discharge documents.
Contributory condition/cause
Contributory cause contains all other principal conditions and any contributory conditions on the medical discharge documents.

Trained personnel are Naval Service and RAF personnel who have completed both Phase 1 and Phase 2 training.

Trade Trained personnel are army personnel who have completed both Phase 1 and 2 training. From 1 October 2016, UK regular forces and Gurkha personnel in the army who have completed both their Phase 1 (basic service training) and Phase 2 training (trade training), are considered trade trained personnel.

UK regulars are full time service personnel, including Nursing Services, Gurkhas and Military Provost Guarding Service (MPGS) but excluding FTRS personnel, naval activated reservists, mobilised Reservists, and Non Regular Permanent Service (NRPS). Unless otherwise stated, includes trained and untrained personnel. This definition may differ from other MOD reports.

Untrained personnel or "trainees" in this report are personnel who are in Phase 1 and Phase 2 training.

Methodology

This section provides a brief summary of the methodology and data sources; more detailed information is available in the background quality report for this bulletin:
https://www.gov.uk/government/collections/medical-discharges-among-uk-service-personnel-statistics-index

Data are compiled by Defence Statistics from three sources:

- Medically discharged personnel were identified from the Joint Personnel Administration System (JPA). JPA is used to hold the administration data for all regular forces.
- Principal and contributory causes of medical discharge are taken from F Med 23s. F Med 23s are official medical documents used to record all medical board proceedings.
- Where paper versions of the FMed 23 form were not available to Defence Statistics, the electronic medical record (DMICP) was utilised.

This bulletin includes regular service personnel (trained and untrained). Royal Navy and Royal Marines personnel are recorded as Naval Service personnel; army regular personnel include Gurkha Regiments and Military Provost Guard Service (MPGS). Reserve personnel were not included.

This bulletin reports on personnel that have already left the UK regular armed forces on a medical discharge; downgraded personnel that are expected to be medically discharged after the reporting period, and personnel discharged under administrative categories on medical grounds were excluded.

Trends in the statistics presented do not directly reflect actual occupational health morbidity within the armed forces. Medical discharges are presented by year of discharge, and not year of onset of condition that led to medical discharge. Therefore trends may only correspond to changes in boarding practice, retention policies or changes to employment standards.

The length of time between detecting and diagnosing a medical condition and the date at which an individual is eventually released under a medical discharge varies for each individual. The timing of a discharge medical board must strike an appropriate balance between the needs of the individual Service and those of the patient. The date of the medical discharge board should allow the timely provision of occupational health advice following the initial referral, and time elapsed waiting for further treatment may affect this board process.

Medical boards do not make decisions on possible causes for medical conditions leading to discharge. Therefore the report does not offer analysis of external causes of injuries or illnesses.

Medical boards also do not make decisions on attributability to service. These decisions are made by administrators of the MOD pension and compensation schemes at Vets-UK. Defence Statistics produce annual reports on the Armed Forces Compensation Scheme[10] and annual reports on War Pension Scheme[11].

The rates in this bulletin present the number of medical discharges per 1,000 personnel. As the size of the UK armed forces varies through time, this is a more accurate means of comparing the proportion of personnel medically discharged from service in different years than utilising counts of the personnel medically discharged. Rates enable comparison between groups by removing the issue of different populations at risk (group sizes).

The z test for independent proportions was used to evaluate if two rates are different to a statistically significant degree. A 95% confidence level was used for this report; this means that if the test determines two populations to have significantly different medical discharge rates, this will be true in greater than 95% of cases.

Further Information

Symbols
~ Data has been suppressed due to Statistical Disclosure Control (greater than zero, fewer than 5).
[p] Indicates provisional data.
[r] Indicates data has been revised from previously published data.

Disclosure Control
In line with JSP 200 (October 2017), the suppression methodology has been applied to ensure individuals are not inadvertently identified dependent on the risk of disclosure. Numbers greater than zero but fewer than five have been suppressed and presented as '~'. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals. For further information on statistical disclosure control see Background Quality Report.

If Defence Statistics Health are asked to release further information on medical discharges the information provided may require further disclosure control to ensure individuals cannot be identified.

Revisions
Since the last release of this Statistical Bulletin in July 2019, the following revisions have been made:
- The rate of army medical discharges in 2018/19 has been updated. This was due to an undercount in the overall army strength numbers from which the rates were calculated. This had no significant impact on findings presented in previous reports.
- Numbers of personnel medically discharged due to back pain, low back pain, cold injury and heat injury have been revised to include additional ICD-10 codes which were not originally included within these groupings. This affects all years presented. This had no significant impact on findings presented in previous reports.
- Between 2016/17 and 2018/19, a small number of reserves (n = 180, 1%) were included within the reported figures in error. These records have been removed from the reported figures, resulting in a decrease in the number of medical discharges reported for those years.
- All revised figures have been represented with an 'r'.

Revisions can be addressed in two ways. For this report, the first of these two methods has been applied:
- Where the number of figures updated in a table is small, figures will be updated and those which have been revised will be identified with the symbol "r". An explanation for the revisions will be provided in the section below.
- Where the number of figures updated in a table is substantial, the revisions to the table, together with the reason for the revisions will be identified in the commentary at the beginning of the relevant chapter / section, and in the commentary above the affected tables. Revisions will not be identified by the symbol "r" since where there are a large number of revisions in a table this could make them more difficult to read.

Occasionally updated figures will be provided to the editor during the course of the year. Since this Bulletin is published electronically, it is possible to revise figures during the course of the year. However to ensure continuity and consistency, figures will only be adjusted during the year where it is likely to substantially affect interpretation and use of the figures.

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:

Defence Statistics Health   Telephone: 030 6798 4423
Email: Analysis-Health-PQ-FOI@mod.gov.uk

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Other contact points within Defence Statistics are:

Defence Expenditure Analysis	030 6793 4531	Analysis-Health-PQ-FOI@mod.gov.uk
Price Indices	030 6793 2100	Analysis-Econ-PI-Contracts@mod.gov.uk
Naval Service Workforce	023 9254 7426	Analysis-Navy@mod.gov.uk
Army Workforce	01264 886175	Def-Strat-Stat-Army-Enquiries@mod.gov.uk
RAF Workforce	01494 496822	Analysis-Air@mod.gov.uk
Tri-Service Workforce	020 7807 8896	Analysis-Tri-Service@mod.gov.uk
Civilian Workforce	020 7218 1359	Analysis-Civilian-Enquiries@mod.gov.uk

If you wish to correspond by mail, our postal address is:
Defence Statistics Health
Ministry of Defence, Abbey Wood (North)
#6028, Oak, 0, West
Bristol
BS34 8JH

For general MOD enquiries, please call: 020 7218 9000

For press enquiries, please call our Press Office: 020 7218 3253

Annex A

Due to interest in the differences between Royal Navy and Royal Marines personnel, Table 1 and Table 2 from the main report have been presented with a Royal Navy and Royal Marines split and are provided this annex; **Annex A**.

All other tables and figures are provided by Royal Navy and Royal Marines split in the supplementary tables found at https://www.gov.uk/government/collections/medical-discharges-among-uk-service-personnel-statistics-index.

Royal Navy

Demographic Risk Groups

Between 1 April 2019 to 31 March 2020, **242** Royal Navy personnel were medically discharged, a rate of **9** per 1,000. This was not significantly different compared to last year (10 per 1,000).

During 2019/20 the rate of medical discharge was significantly higher for regular Royal Navy personnel within specific demographic groups (**Table A2.1**):
- Personnel aged 35-39 years.
- Females.
- Other ranks.
- Trained personnel.

Table A2.1: UK regular Royal Navy medical discharges by age group[1], gender[1], rank[1] and training status[1], numbers[2] and rates per 1,000 personnel at risk
1 April 2019 to 31 March 2020

	2019/20		Rate of UK regular Royal Navy personnel medically discharged
	n	r	
Number of UK regular Royal Navy personnel medically discharged	**242**	**9.4**	
Age			
Aged under 20	1	0.8	
Aged 20-24	29	6.0	
Aged 25-29	54	10.1	
Aged 30-34	54	11.6	
Aged 35-39[+]	57	14.9	
Aged 40-44	28	11.6	
Aged 45-49	12	6.3	
Aged 50 and over	7	4.6	
Gender			
Male	198	8.7	
Female*	44	14.5	
Rank			
Officer	21	3.5	
Other Rank*	221	11.2	
Training Status			
Trained*	237	10.5	
Untrained	5	1.6	

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[2] In line with JSP 200, numbers fewer than five were not suppressed in demographics tables as Defence Statistics assessed that these figures did not disclose sensitive personal information.
+ Groups found to be at a significantly higher than average risk using a z-test for a single proportion at a 95% confidence level.
* Groups found to be at a significantly higher risk using a z-test for proportions at a 95% confidence level.

Causes of Medical Discharge

Table A2.2: UK regular Royal Navy medical discharges by principal ICD-10 cause code group and financial year, numbers[2] and percentages[1]
1 April 2015 and 31 March 2020

	All		2015/16		2016/17		2017/18		2018/19		2019/20	
	n	%	n	%	n	%	n	%	n	%	n	%
All medical discharges	**1,371**		**286**		**278** [r]		**316**		**249**		**242**	
All cause coded medical discharges	**1,369**	**100**	**285**	**100**	**278** [r]	**100**	**316**	**100**	**248**	**100**	**242**	**100**
Infectious and parasitic diseases (A00 - B99)	~	<1	~	<1	~	<1	0	0	0	0	0	0
Neoplasms (C00 - D48)	14	1	~	1	5	2	~	<1	~	<1	~	<1
Blood disorders (D50 - D89)	~	<1	0	0	~	<1	~	<1	0	0	0	0
Endocrine, nutritional and metabolic diseases (E00 - E90)	19	1	~	1	~	1	5	2	5	2	~	1
- Of which diabetes (E10-E14)	11	<1	~	<1	~	<1	5	2	~	<1	~	<1
- Of which insulin-dependent (E10)	7	<1	~	<1	~	<1	~	1	0	0	~	<1
- Of which non-insulin-dependent (E11)	~	<1	0	0	~	<1	~	<1	~	<1	0	0
Mental and behavioural disorders (F00 - F99)	**331**	**24**	64	22	46	17 [r]	72	23	72	29	77	32
- Of which mood disorders (F30 - F39)	121	9	21	7	15	5	30	9	29	12	26	11
- Of which depression (F32 & F33)	106	8	15	5	15	5	26	8	27	11	23	10
- Of which neurotic, stress related and somatoform (F40 - F48)	178	13	32	11	28	10	34	11	40	16	44	18
- Of which post-traumatic stress disorder (PTSD) (F431)	82	6	13	5	14	5	14	4	22	9	19	8
- Of which adjustment disorder (F432)	27	2	~	<1	~	<1	6	2	8	3	9	4
Nervous system disorders (G00 - G99)	65	5	12	4	11 [r]	4	13	4	10	4	19	8
- Of which epilepsy (G40)	10	<1	~	<1	~	1 [r]	~	<1	~	<1	0	0
Eye and adnexa diseases (H00 - H59)	10	<1	~	1	~	<1	~	<1	~	<1	~	<1
- Of which blindness, low vision and visual disturbance (H53 & H54)	~	<1	~	<1	~	<1	0	0	~	<1	~	<1
Ear and mastoid process diseases (H60 - H95)	35	3	10	4	~	1	11	3	~	2	6	2
- Of which hearing loss (H833 & H90 - H91)	27	2	9	3	~	<1	10	3	~	1	~	2
- Of which noise-induced hearing loss (H833)	0	0	0	0	0	0	0	0	0	0	0	0
- Of which tinnitus (H931)	~	<1	~	<1	~	<1	0	0	0	0	0	0
Circulatory system disorders (I00 - I99)	25	2	8	3	~	1	~	<1	5	2	5	2
Respiratory system disorders (J00 - J99)	25	2	9	3	~	1	6	2	~	<1	~	2
- Of which asthma (J45 & J46)	19	1	8	3	~	<1	~	1	~	<1	~	2
Digestive system disorders (K00 - K93)	57	4	17	6	10	4	13	4	12	5	5	2
Skin and subcutaneous tissue diseases (L00 - L99)	45	3	10	4	6	2	11	3	7	3	11	5
Musculoskeletal disorders (M00 - M99) and injuries (S00 - T98)	**680**	**50**	137	48	169 [r]	61	158	50	118	48	98	40
- Of which injuries and disorders of the knee[2]	145	11	32	11	43	15	28	9	24	10	18	7
- Of which knee pain (M2556)	72	5	13	5	23	8	15	5	12	5	9	4
- Of which back pain (M544 - M545, M549)	124	9	22 [r]	8 [r]	25 [r]	9	36	11	19	8	22	9
- Of which low back pain (M544 - M545)	112	8	20 [r]	7 [r]	21 [r]	8 [r]	32	10	18	7	21	9
- Of which injuries and disorders of the ankle and foot[3]	53	4	13	5	13	5	10	3	11	4	6	2
- Of which heat injury (T67)	0	0	0	0	0	0	0	0	0	0	0	0
- Of which cold injury (T68 & T69)	10	<1	~	1	~	<1	~	<1	~	<1	~	1
Genitourinary system diseases (N00 - N99)	9	<1	~	<1	~	1	5	2	0	0	0	0
Pregnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	5	<1	~	<1	0	0	~	<1	~	<1	~	<1
Clinical and laboratory findings (R00 - R99)	40	3	5	2	9	3	10	3	9	4	7	3
External Causes of Morbidity and Mortality (V01 - Y98)	~	<1	0	0	0	0	~	<1	0	0	0	0
Factors influencing health status (Z00 - Z99)	~	<1	~	<1	~	<1	~	<1	~	<1	0	0
No details held on principal condition for medical boarding	2		1		0		0		1		0	
Withheld consent	0		0		0		0		0		0	

Source: DMICP, FMed 23 and JPA

[1] Data presented as "<1%" represent a percentage of cause coded medical discharges of greater than 0% but smaller than 1%.
[2] Injuries and disorders of the knee have been compiled using ICD-10 codes, please see annex for specific codes.
[3] Injuries and disorders of the ankle and foot have been compiled using ICD-10 codes, please see annex for specific codes.
~ In line with JSP 200 on statistical disclosure, figures less than five have been suppressed. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.
[r] indicates a revision to previously published data

Royal Marines

Demographic Risk Groups

Between 1 April 2019 to 31 March 2020, **124** Royal Marines personnel were medically discharged, which equals a rate of **18** per 1,000. This was not significantly different compared to last year (21 per 1,000).

During 2019/20 the rate of medical discharge was significantly higher for regular Royal Marines personnel within specific demographic groups (**Table A3.1**):
- Other ranks.
- Untrained personnel.

Table A3.1: UK regular Royal Marines medical discharges by age group[1], gender[1], rank[1] and training status[1], numbers[2] and rates per 1,000 personnel at risk
1 April 2019 to 31 March 2020

	2019/20		Rate of UK regular Royal Marines personnel medically discharged
	n	r	
Number of UK regular Royal Marines personnel medically discharged	**124**	**18.4**	
Age			
Aged under 20	6	22.8	
Aged 20-24	20	14.3	
Aged 25-29	32	18.0	
Aged 30-34	30	22.4	
Aged 35-39	21	23.5	
Aged 40-44	8	16.5	
Aged 45-49	5	14.2	
Aged 50 and over	2	9.5	
Gender			
Male	122	18.4	
Female	2	18.4	
Rank			
Officer	4	5.0	
Other Rank*	120	20.3	
Training Status			
Trained	97	16.1	
Untrained*	27	38.0	

Source: DMICP, FMed 23 and JPA
[1] As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.
[2] In line with JSP 200, numbers fewer than five were not suppressed in demographics tables as Defence Statistics assessed that these figures did not disclose sensitive personal information.
* Groups found to be at a significantly higher risk using a z-test for proportions at a 95% confidence level.

Royal Marines Continued

Causes of Medical Discharge

Table A3.2: UK regular Royal Marines medical discharges by principal ICD-10 cause code group and financial year, numbers and percentages[1]
1 April 2015 and 31 March 2020

	All		2015/16		2016/17		2017/18		2018/19		2019/20	
	n	%	n	%	n	%	n	%	n	%	n	%
All medical discharges	**756**		**156**		**165** [r]		**170**		**141** [r]		**124**	
All cause coded medical discharges	**751**	**100**	**151**	**100**	**165** [r]	**100**	**170**	**100**	**141** [r]	**100**	**124**	**100**
Infectious and parasitic diseases (A00 - B99)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Neoplasms (C00 - D48)	**5**	**<1**	~	<1	~	<1	0	0	~	<1	~	2
Blood disorders (D50 - D89)	**~**	**<1**	0	0	~	<1	0	0	0	0	~	<1
Endocrine, nutritional and metabolic diseases (E00 - E90)	**8**	**1**	~	1	0	0	~	<1	~	<1	~	3
- Of which diabetes (E10-E14)	**6**	**<1**	~	1	0	0	~	<1	~	<1	~	2
- Of which insulin-dependent (E10)	**6**	**<1**	~	1	0	0	~	<1	~	<1	~	2
- Of which non-insulin-dependent (E11)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Mental and behavioural disorders (F00 - F99)	**67**	**9**	8	5	16	10	17	10	11	8	15	12
- Of which mood disorders (F30 - F39)	**16**	**2**	~	3	~	2	~	1	~	3	~	2
- Of which depression (F32 & F33)	**12**	**2**	~	2	~	1	~	1	~	1	~	2
- Of which neurotic, stress related and somatoform (F40 - F48)	**48**	**6**	~	3	11	7	14	8	~	5	12	10
- Of which post-traumatic stress disorder (PTSD) (F431)	**41**	**5**	~	2	9	5	13	8	~	4	10	8
- Of which adjustment disorder (F432)	**~**	**<1**	0	0	~	<1	0	0	0	0	~	<1
Nervous system disorders (G00 - G99)	**20**	**3**	~	3	~	2	6	4	5	4	~	<1
- Of which epilepsy (G40)	**~**	**<1**	0	0	~	<1	0	0	0	0	0	0
Eye and adnexa diseases (H00 - H59)	**~**	**<1**	0	0	0	0	~	<1	~	<1	0	0
- Of which blindness, low vision and visual disturbance (H53 - H54)	**~**	**<1**	0	0	0	0	0	0	~	<1	0	0
Ear and mastoid process diseases (H60 - H95)	**65**	**9**	11	7	15	9	17	10	8	6	14	11
- Of which hearing loss (H833 & H90 - H91)	**54**	**7**	9	6	15	9	13	8	6	4	11	9
- Of which noise-induced hearing loss (H833)	**12**	**2**	~	2	~	<1	~	<1	~	1	5	4
- Of which tinnitus (H931)	**8**	**1**	~	<1	0	0	~	2	~	<1	~	2
Circulatory system disorders (I00 - I99)	**9**	**1**	~	1	~	<1	~	2	~	1	~	<1
Respiratory system disorders (J00 - J99)	**12**	**2**	~	<1	~	2	~	1	~	3	~	<1
- Of which asthma (J45 & J46)	**10**	**1**	~	<1	~	2	~	<1	~	3	0	0
Digestive system disorders (K00 - K93)	**15**	**2**	~	1	~	2	6	4	~	<1	~	2
Skin and subcutaneous tissue diseases (L00 - L99)	**~**	**<1**	0	0	~	1	0	0	0	0	~	2
Musculoskeletal disorders (M00 - M99) and injuries (S00 - T98)	**512**	**68**	116	77	107 [r]	65	112	66	100 [r]	71	77	62
- Of which injuries and disorders of the knee[2]	**124**	**17**	30	20	26	16	28	16	26 [r]	18 [r]	14	11
- Of which knee pain (M2556)	**58**	**8**	11	7	12	7	17	10	12	9	6	5
- Of which back pain (M544 - M545, M549)	**87**	**12**	20	13	20 [r]	12 [r]	17	10	12	9	18	15
- Of which low back pain (M544 - M545)	**81**	**11**	17	11	19 [r]	11 [r]	17	10	10	7	18	15
- Of which injuries and disorders of the ankle and foot[3]	**52**	**7**	16	11	11	7	8	5	9 [r]	6	8	6
- Of which heat injury (T67)	**~**	**<1**	0	0	0	0	0	0	0	0	~	2
- Of which cold injury (T68 & T69)	**20**	**3**	7	5	~	1	5	3	~	2	~	2
Genitourinary system diseases (N00 - N99)	**~**	**<1**	0	0	~	<1	0	0	~	<1	0	0
Pregnancy, childbirth and puerperium (O00 - O99)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	**5**	**<1**	~	<1	~	<1	0	0	~	1	~	<1
Clinical and laboratory findings (R00 - R99)	**20**	**3**	~	2	7	4	~	2	~	3	~	2
External Causes of Morbidity and Mortality (V01 - Y98)	**0**	**0**	0	0	0	0	0	0	0	0	0	0
Factors influencing health status (Z00 - Z99)	**~**	**<1**	0	0	~	1	~	<1	0	0	0	0
No details held on principal condition for medical boarding	**5**		5		0		0		0		0	
Withheld consent	**0**		0		0		0		0		0	

Source: DMICP, FMed 23 and JPA

[1] Data presented as "<1%" represent a percentage of cause coded medical discharges of greater than 0% but smaller than 1%.

[2] Injuries and disorders of the knee have been compiled using ICD-10 codes, please see annex for specific codes.

[3] Injuries and disorders of the ankle and foot have been compiled using ICD-10 codes, please see annex for specific codes.

~ In line with JSP 200 on statistical disclosure, figures less than five have been suppressed. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.

[r] indicates a revision to previously published data.

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