Ministry of Defence
Main Building
Whitehall
London
SW1A 2HB

Ref: FOI2018/14201

Gavin Roberts

Reply to: request-531446-c10af73a@whatdotheyknow.com 7 February 2019

Dear Mr Roberts,

Thank you for your email to the Ministry of Defence (MOD) of 9 November 2018 in which you requested the following information:

> *"What was the Vaccine Regime Plan for the Gulf war/Op Granby 90/91? (What Vaccines were purchased/formulated and then supplied for the intention of use on each and every 1 of our troops?*
>
> *DId the MOD use vaccine/s or combinations of vaccines that had never been tested on humans prior to the Gulf War troops 90/91?*
>
> *How many total shots were our troops supposed to receive during those 1st few weeks in 90/91 and how many Anthrax boosters were included in this number?*
>
> *Did MOD take into account the individuals current health and recent vaccines history prior to administering them with the Vaccine regime?*
>
> *MOD Have stated before, that we used the United States formula for Anthrax. Did the USA formula offered to us contain squalene?*
>
> *Did we replace the squalene adjuvant with the Pertusis adjuvant?*
>
> *Did we recieve any Anthrax supplies through the USA?*
>
> *Which version of Anthrax did British troops receive that were attached to our American Allies?"*

Your correspondence has been treated as a request for information under the Freedom of Information Act 2000 (FOI Act).

I apologise for the time taken to respond to this request. A search for the information you have requested has now been concluded. I can confirm that the Ministry of Defence holds some information in scope of your request.

I will deal with your questions in turn.

Q What was the Vaccine Regime Plan for the Gulf war/Op Granby 90/91? (What Vaccines were purchased/formulated and then supplied for the intention of use on each and every 1 of our troops?

Following Saddam Hussein's invasion of Kuwait in August 1990, a coalition of nations deployed forces to prevent any further Iraqi aggression and liberate Kuwait. In doing so,

they faced the possibility that Iraq might use the chemical and biological weapons believed to be at its disposal against them. For Iraq, the attraction of such weapons was their potential to inflict massive casualties upon any forces opposing its regional ambitions.

Building upon the suite of protective measures already developed against these weapons, the United Kingdom embarked on a programme to provide the best available protection for British troops against the specific and highly lethal chemical and biological weapons that Iraq was believed to possess. Achieving this in the wider context of preparations for war required an intensive and sustained effort by the Ministry of Defence and other Government Departments and Agencies.

As part of these protective measures, a programme of immunisation against certain biological warfare agents was undertaken using three vaccines: anthrax and plague against the assessed threat of Iraqi biological warfare agents and pertussis as an "adjuvant" to accelerate the immunisation effect of the anthrax vaccine. All key facts about the medical countermeasures used to protect British Forces during the 1990/1991 Gulf Conflict have been disclosed and have been in the public domain for some years. This includes:

Background to the use of Medical Countermeasures to protect British forces during the Gulf War (Operation Granby) published October 1997 and available at https://webarchive.nationalarchives.gov.uk/20050329011418/http://www.mod.uk/issues/gulfwar/info/medical/mcm.htm and

“Implementation of the Immunisation Programme against Biological Warfare Agents for UK Forces During the Gulf Conflict 1990/91”

published January 2000 at https://webarchive.nationalarchives.gov.uk/20050329011707/http://www.mod.uk/issues/gulfwar/info/medical/bwa.htm

Q DId the MOD use vaccine/s or combinations of vaccines that had never been tested on humans prior to the Gulf War troops 90/91?

As advised, all key facts about the medical countermeasures used to protect British Forces during the 1990/1991 Gulf Conflict have been disclosed and have been in the public domain for some years. The report Background to the use of Medical Countermeasures to protect British forces during the Gulf War (Operation Granby) published October 1997 at https://webarchive.nationalarchives.gov.uk/20050329011418/http://www.mod.uk/issues/gulfwar/info/medical/mcm.htm states:

> “31. A number of the medical countermeasures used during Op GRANBY were unlicensed in the UK at the time. In each case the decision to use an unlicensed product reflected the need to protect British troops against a specific threat in the absence of an appropriate UK licensed alternative.
>
> 32. The fact that a medical product is unlicensed does not mean that it is untested or is inherently unsafe. The licensing of medicines is a rigorous, time-consuming and expensive process. Manufacturers of vaccines are only likely to apply for a UK licence if the potential market for the product warrants the efforts and costs involved. Licensing procedures cannot be accelerated: hence there was no possibility of obtaining a UK licence for any previously unlicensed product in the six months between the Iraqi invasion of Kuwait and the Coalition campaign to liberate it.”

Q.How many total shots were our troops supposed to receive during those 1st few weeks in 90/91 and how many Anthrax boosters were included in this number?

Q Did MOD take into account the individuals current health and recent vaccines history prior to administering them with the Vaccine regime?

The report *Background to the use of Medical Countermeasures to protect British forces during the Gulf War (Operation Granby)* published October 1997 at https://webarchive.nationalarchives.gov.uk/20050329011418/http://www.mod.uk/issues/gulfwar/info/medical/mcm.htm states:

> **"Anti-BW immunisation**
>
> 22. During Op GRANBY the MOD had a specifically targeted anti-BW immunisation programme in which three vaccines were used: anthrax and plague against the assessed threat of Iraqi BW agents, and pertussis as an adjuvant to anthrax. (Each of these is discussed in a separate section below.) The overall policy was that these vaccines should be administered on the basis of voluntary informed consent. The MOD is aware that many veterans regard this policy as having been breached in practice. A fact finding team has been established to look into the implementation of the vaccination programme*.
>
> **Other vaccines**
>
> 23. In addition to the anti-BW vaccines, British Service personnel could also have received a number of other routine vaccinations at about the same time. These were those which Service personnel were normally required to have (yellow fever, tetanus, typhoid and poliomyelitis); those appropriate for travellers to the region (cholera); and those appropriate to particular categories of Service personnel (hepatitis B). Information on these six vaccines was made available by MOD in 1993.
>
> 24. Recent work on Gulf War records suggests that some troops also received meningitis vaccine, which was not listed in the 1993 memorandum. Some troops could also have received hepatitis A immunoglobulin, which was available in theatre. More information on the range of routine vaccinations received by different groups of service personnel will be sought as part of the current fact-finding work.

The report *Implementation of the Immunisation Programme against Biological Warfare Agents for UK Forces During the Gulf Conflict 1990/91 published January 2000 at*

https://webarchive.nationalarchives.gov.uk/20050329011707/http://www.mod.uk/issues/gulfwar/info/medical/bwa.htm

states:

> "BIOLOGICAL WARFARE AGENTS
>
> CHAPTER THREE - IMMUNISATION AGAINST DISEASE IN THE UK ARMED FORCES
>
> 53. As members of the general population, Service personnel will have had a range of immunisations before they join the Armed Forces. In the Services they are likely to

receive additional immunisations. There are also a number of differences between Service and civilian immunisation practice.

Immunisations routinely given to Service personnel

54. When a civilian joins the UK Armed Forces, his or her immunisations for poliomyelitis, tetanus and yellow fever ("standard Service immunisations") are brought up to date. He or she would also be tested for tuberculosis immunity (the Heaf test). However, only a small number of recruits would receive a BCG immunisation against tuberculosis as the majority of individuals should have been immunised at school age. At the time of the Gulf conflict, recruits would also have been brought up to date with typhoid immunisation and automatically tested for diphtheria immunity. [1] **Again, only a small number if individuals would have received a diphtheria immunisation as the majority of individuals should have been immunised at school age.**

55. As in civilian life, Service personnel also receive specific immunisations appropriate to their work, such as hepatitis B for health workers, ("occupational immunisations"). Whenever Service personnel are due to be deployed overseas, individuals will be immunised against the known threat from endemic disease in the area of deployment ("regional immunisations").

56. Service personnel are therefore likely to receive more immunisations than most of their civilian contemporaries and they generally accept such immunisations as a part of their way of life. Collectively, the vaccines used by the UK Armed Forces for the various public health reasons described above are referred to as "routine immunisations" in this report.

How Service personnel are immunised

57. The current MOD procedures for administering vaccinations and maintaining medical records are contained in the Joint Service Manual of Immunological Procedures, JSP 311 (published in 1993), Part 2 of which is the Department of Health's' handbook, 'Immunisation Against Infectious Disease'. The edition of JSP 311 extant in 1990 appears to have been the 1968 edition as amended to January 1981, hereafter referred to as JSP 311(1981), although the authors of JSP 311 have not been able to confirm this from their records.

58. In addition, the Army also refers to Volume Two of the Army General and Administrative Instructions (AGAIs). These were introduced in 1973 to cover permanent instructions for the Army which do not fit into Queen's Regulations or other regulations. Chapter 66 of the AGAIs, titled "Medical Including Dental: Casualties, Treatment, Inspection, Immunization and Records" has a section which covers immunological procedures. The version of Volume Two, Chapter 66 of AGAIs extant in 1990 appears to have been that published in April 1987, hereafter referred to as Vol 2, Ch 66 of AGAIs. Among other things, this Instruction sets out the responsibilities of unit Commanding Officers, Medical Officers and Senior Administrative Medical Officers when conducting immunisations. The relevant extract is at Annex A.

59. Immunisation can take place either on an individual basis, or at an immunisation parade if a large number of personnel need to be immunised at the same time. Immunisations are generally given at a unit medical centre by Service medical personnel. [2] "

Q MOD Have stated before, that we used the United States formula for Anthrax. Did the USA formula offered to us contain squalene?

The report "*Background to the use of Medical Countermeasures to protect British forces during the Gulf War (Operation Granby)"* published October 1997 at

https://webarchive.nationalarchives.gov.uk/20050329011418/http://www.mod.uk/issues/gulfwar/info/medical/mcm.htm

states:

> "35. The use of vaccine to provide protection against anthrax was already well established in 1990. A vaccine with a UK licence was available and the characteristics of that vaccine were well known and documented.
>
> UK licensed vaccine
>
> 36. An anthrax vaccine has been produced by the Centre for Applied Microbiology and Research (CAMR) at Porton Down since 1956*. This vaccine has been licensed in the UK to the Secretary of State for Health as Medicines Control Agency (MCA) product licence number 1511/0037 since 1979. It is still being produced and is used primarily to protect veterinary and laboratory workers, and those employed in "hair and hide" industries, such as tanneries, woollen mills and bone-meal factories.
>
> 37. The active ingredient of the UK licensed human anthrax vaccine is the protective antigen (PA), which is produced by the bacteria when they are grown in a culture. The PA is non-toxic and can be isolated from the culture fluid and purified to remove other materials. When used in a purified form in a vaccine, it can induce an immune response which provides protection against anthrax.
>
> 38. During the 1980s, work under MOD contract was carried out at CAMR to understand the protection against anthrax provided by PA-based vaccine. The essence of this work was published in the Salisbury Medical Bulletin*."

The report "*Background to the use of Medical Countermeasures to protect British forces during the Gulf War (Operation Granby)"* published October 1997 at

https://webarchive.nationalarchives.gov.uk/20050329011418/http://www.mod.uk/issues/gulfwar/info/medical/mcm.htm

describes in detail how a vaccine against plague was purchased from the US DoD for use by UK forces. None of the other vaccines used for this programme were acquired from the US.

The report "Implementation of the Immunisation Programme against Biological Warfare Agents for UK Forces During the Gulf Conflict 1990/91" published January 2000 at

https://webarchive.nationalarchives.gov.uk/20050329011707/http://www.mod.uk/issues/gulfwar/info/medical/bwa.htm

contains information about Anthrax Vaccine and Pertussis Vaccine at Annexes A, B1 and B2.

Q Did we replace the squalene adjuvant with the Pertusis adjuvant?

None of the vaccines used for this programme contained squalene.

Q Did we receive any Anthrax supplies through the USA?

No.

Q Which version of Anthrax did British troops receive that were attached to our American Allies?

Information about vaccines provided to British troops attached to the US military during the 1990/91 Gulf conflict should be recorded on their medical records.

If you have any queries regarding the content of this letter, please contact this office in the first instance.

If you wish to complain about the handling of your request, or the content of this response, you can request an independent internal review by contacting the Information Rights Compliance team, Ground Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review should be made within 40 working days of the date of this response.

If you remain dissatisfied following an internal review, you may raise your complaint directly to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not normally investigate your case until the MOD internal review process has been completed. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website at https://ico.org.uk/.

Yours sincerely,

Defence People Secretariat FOI