Part VIII. Ethics
Overview

From an ethical perspective the survey has considered eight themes.

- The relationship between the volunteer and the researcher, particularly any dependency that might exist.
- How consent was obtained and the requirement for some tangible evidence that it had been obtained.
- Whether a concept of "risk" for volunteers existed and the nature of the risk.
- The extent of information given to the volunteer about the study and the form in which it was given.
- Compensation.
- Payments and inducements.
- Ethics committees
- The need for prior research before using humans.

Porton’s practice in some of these areas is covered by earlier chapters but the information given to volunteers about the studies, whether consent was obtained and compensation are the main themes yet to be addressed. The first two relate to recruitment and are discussed in Chapter 21. The arrangements for compensating Porton volunteers are also covered there.

Chapter 21 mainly draws on surviving MOD documents which record how Porton volunteers were recruited. Some contact has been made with former volunteers but none has been possible with former members of Porton staff. These matters are explained in Annex H which also includes the questionnaire used to elicit the recollections of volunteers. The statistics of the responses made to the questionnaire are cited in Chapter 21. Annex I contains a description of the film made by Porton in 1965 which advertised the volunteer scheme. However, these sources do not produce a complete picture of the recruitment procedures used with Porton volunteers.

Chapter 21 completes the survey of Porton’s practice in the conduct of human studies over the period covered by the survey. Chapter 22 takes a wider view. During the period covered by the survey various national and international bodies published codes and guidelines concerning the ethics of medical research with humans. The nature of these codes and guidelines, how they were implemented in practice in UK medical circles and what they said about each of the eight ethical themes considered by the survey has been analysed, independently of the MOD, by a qualified academic, Dr Alasdair Maclean of the University of Dundee. Dr Maclean’s paper is produced in full in Chapter 22.

The second part of the survey to be conducted independently of the MOD was written by Sir Ian Kennedy, Emeritus Professor of Health Law, Ethics and Policy and concerns an ethical assessment of Porton's conduct. This assessment is reproduced in full at Chapter 23. Sir Ian completed his assessment having read the previous chapters of the Historical Survey. The MOD had no editorial control over the assessment: what appears in it was determined solely by Sir Ian.
Chapter 21. Recruitment of Porton Down volunteers

21.1. Observer scheme recruitment method

The method of calling for Service volunteers under the observer scheme introduced in 1929 is still in use. There were minor changes as Ministries were abolished and responsibilities changed but the skeleton of the method remained unchanged. It featured a flow of information from Porton through the Services to military units. Figure 21.1 depicts this flow.

![Flow of Information Diagram]

The method culminated in a call for volunteers being made at military units. The call was often in written form and is referred to here as the "recruitment notice". It contained information about the studies (normally referred to in notices as "tests") and the arrangements for those who volunteered.

Porton notified the War Office (later the MOD) of the number of volunteers sought. Usually a certain number were required for each period. Early in the scheme volunteers were recruited for a period of a week; later for two weeks. Prior to 1964 each Service wrote to commands and units calling for volunteers. Often the Service would stipulate how many volunteers each command (or group of units) would supply, referred to as the "quota" in Figure 21.1.

Before 1964 Porton at times suggested to the War Office and Service Ministries the form of words that might be used in recruitment notices. In turn the Service Ministries suggested to units how the recruitment notice should be couched. However, it should not be inferred that suggestions made by Porton automatically appeared in recruitment notices used at units. From 1964 recruitment notices appeared in formal administrative instructions issued by the MOD.

The survey has attempted to find out how the Porton studies were described in notices for volunteers. Copies of the calling notices issued from 1964 in formal administrative instructions have been found in MOD archives. Very few copies of the recruitment notices used at units before 1964 have been found even though units were asked in 2001 to search their archives for them. Therefore, in trying to find out the terms in which the volunteer scheme was advertised before 1964, the survey has had to use indirect information in MOD documents.
21.2. Recruitment notices before 1964

21.2.1 References in MOD Documents

References in MOD documents relate to the information passed to the Service departments, although (unless a specific recruitment notice has been found) it can not be guaranteed what information was passed to volunteers via this route. For example, in 1929 the War Office wrote to the Air Ministry and the Admiralty [1, 2] seeking volunteers for studies. The letters included information about the tests for which volunteers were sought.

- Test involves "the observer [volunteer] wearing in contact with the skin of his forearm for about 24 hours a small piece of the material used to test the adequacy of the decontamination treatment. The skin is examined at the end of that time for any physiological effect due to mustard gas remaining in the material". "At the most the effects may be redness of the skin, or in the worst cases a small blister similar to that produced by a heat burn".

In 1932 the War Office wrote again to the Air Ministry and Admiralty explaining that it was apparent from "observers who had recently arrived at Porton that they were not fully aware of the conditions under which Service personnel were asked to volunteer" [3]. The War Office [3] went on to say:

In calling for volunteers it is suggested that it be explained that volunteers will be required to submit to the effect of gas. "By gas is meant certain liquids which may blister the skin when applied to it. No gas will be breathed by anyone".

The aim is to understand how to cleanse skin and prevent burning, and how to render clothing safe after they have been contaminated with blistering liquids.

Nature of tests:

1. "A tiny drop of liquid is applied to the skin and various remedial measures taken" "Should … the remedy prove ineffective, the worst which can happen is a small burn about the size of a sixpence, similar to an ordinary heat burn, which is of no significance and which will heal in a day or so".

2. "Small pieces of cloth, after decontamination treatment, are applied to the skin to ascertain how far the treatment is successful. If unsuccessful, a small area of redness will result, or at the worst a small burn as in (a) above."

No documents have been found which indicate whether this information was included in subsequent recruitment notices. Even if it were, it is possible that observers could still arrive at Porton not being “fully aware of the conditions under which [they] volunteer[ed]” [3] if they had not read the notice properly or the information had been passed by word of mouth.

Although no further correspondence has been found from the War Office, the question of the wording of recruitment notices was still considered to be an issue: an example has been found of a Service Department writing to units with suggestions about the information that should be given in a recruitment notice. In 1953 a letter from the RAF Director of Manning to RAF units [4] suggested the following words. The wording was precisely the same as that used by the Army and RN [5].

"The following information is to be brought to the notice of personnel to encourage them to volunteer:"

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1 Human studies for which volunteers were sought are usually referred to in recruitment notices as "tests".

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“a. The physical discomfort resulting from the tests is usually very slight. Tests are carefully planned to avoid the slightest chance of danger, and are under expert medical supervision.”

“b. During their stay at Porton volunteers do not undertake any military duties or fatigues, and are free every evening”

“c. Extra pay is given which normally brings each volunteer some 10-15 shillings a week”

“It is normal for the period of attachment to be one week. Occasionally it is necessary to retain certain personnel for more than one week for observation.”

The suggested wording gives very little information about the nature of the studies. Although it would be wrong to assume that this reflected what was actually produced in recruitment notices it does seem clear that in certain circumstances, as Porton notes in a report [6] of a nerve gas experiment conducted in early 1953, “few [volunteers] had more than the vaguest idea of the sort of things they would be asked to do”.

Porton comments further on the information passed to potential volunteers in 1961. The following extracts relate to the information given in recruitment notices [7]:

“Volunteers are called for by the posting of some sort of notice. In the Navy there is a notice board issue of an AFO [Admiralty Fleet Order], in the Army a War Office letter goes out to commanding officers and the gist of this is either incorporated in orders or posted as a separate notice. In the Air Force a letter is sent to Commands and the gist of this is published in SRO [Station Routine Orders]”

“Each service uses a different wording to indicate the sort of tests proposed. Experience has shown that detailed description deters and so now very little is said”. The note describes the wording used by each of the three Services which might have been duplicated in recruitment notices.

- **The Army:** “The tests carried out at CDEE [Porton] are carefully planned and are arranged so as to eliminate foreseeable danger. They are carried out under expert medical supervision and any physical discomfort which may result from them is usually very slight. During their stay, volunteers are not required to carry out military duties or fatigues, and they are free every evening subject to the exigencies of their tests.”

- **The Royal Navy:** “The tests are carefully planned and are carried out under medical supervision. On the basis of the number of tests undertaken extra pay is given, which usually amounts to between 20s and 30s a week. During their stay at Porton volunteers perform no military duties or fatigues and they are free every evening provided the exigencies of their tests permit. They may wear plain clothes except when actually on test.”

- **The Royal Air Force:** “The Air Force is more forthcoming” - “The tests carried out at CDEE [Porton] provide important information that is of benefit not only to the Service but to the nation. They are carried out under expert medical supervision and any physical discomfort which may result from them is very slight. During their stay volunteers are not required to carry out duties or fatigues and they are free every evening subject to the exigencies of their tests.”

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2 This difference between the RN and the other two Services is important. In the RN recruitment notices appeared in centrally produced administration instructions but for the other two services recruitment notices were produced locally at units. It would not be common practice for units to retain copies of notices which might explain why it has only been possible to trace examples of recruitment notices published by the Admiralty in AFOs.
It is not until the late 1950s that copies of actual recruitment notices have been found. These are important because they show the information being passed to servicemen through official channels although, once again, one cannot be certain whether all volunteers read the notices, or indeed retained all the information detailed. For example, each recruitment notice found and reproduced in the following pages details the following:

**Venue** – Tests to be conducted at the Chemical Defence Experimental Establishment

**Purpose** – Usually referred to simply as “Physiological Tests”. Words are included about the nature of the tests, i.e. “the tests are carefully planned and are carried out under expert medical supervision. The physical discomfort resulting from them is usually very slight”.

**Number** - The number of volunteers sought is stipulated. A quota of 20 volunteers is sought for each weekly period. From the start of the observer scheme until 1979 [8], particular recruitment periods were allocated to each Service. For 1959, weekly recruitment periods in January, May and September were allocated for volunteers from the RN.

The recruitment notice covers the year ahead. This pattern is repeated in subsequent AFOs which were published annually.

The quota of the volunteers sought is specified by the Admiralty: for example, General Service ratings are called upon for some weeks, Fleet Air Arm ratings for others. This is a similar arrangement to the call for volunteers made by the RAF for the influenza vaccine trials in the winter of 1952/53; the quota of volunteers to be supplied by each RAF Command was specified.

**Incentives** – The extra pay that a volunteer would be expected to earn is specified, i.e. “not less than 15s a week”. Almost every recruitment notice which appears in this chapter (including those used after 1964) includes a statement about payments. Other benefits are expressed: “no military duties or fatigues”, for example. Generally, these benefits were explained in recruitment notices.
*2703.—Ratings—Volunteers for Physiological Tests at Porton
(N.C.W. 673/1/58/C.—7 Nov. 1958.)

Volunteers from General Service and Fleet Air Arm ratings are required during 1959 and in January, 1960, for Physiological Tests at the Chemical Defence Experimental Establishment at Porton, which is approximately six miles from Salisbury, Wilts. The tests are carefully planned and are carried out under expert medical supervision. The physical discomfort resulting from them is usually very slight.

2. During their stay at Porton no military duties or fatigue are performed by volunteers and they are free every evening, provided the exigencies of their tests permit. Extra pay is given which normally brings each volunteer not less than 15s. a week. Plain clothes may be worn except when ratings are actually undergoing tests.

3. Volunteers for tests are required for a period of seven days, but it is necessary on occasion to retain individuals for further observations. The Naval Experimental Officer, C.D.E.E. will inform Commanding Officers by signal of the date of ratings' return.

4. Normally all tests begin on the Monday of each week, but certain preliminary work is sometimes carried out on the Sunday morning. Ratings will be drafted, therefore, to arrive not later than 1800 on the previous Saturday. The Flag Officer Air (Home) or the Commodore, Naval Drafting should notify to C.D.E.E. by signal at least seven days previously the approximate numbers to be expected, and nominal lists should reach Porton not later than 48 hours before the date of joining. All correspondence should be addressed to:—

The Naval Experimental Officer,
C.D.E.E./M.R.B.,
Porton Down,
Salisbury,
Wils.

Telephone No.: Idmiston 211, Ext. 10 or 166.

The Microbiological Research Establishment, which is also at Porton, is connected to the Admiralty by teleprinter, and signals addressed N.E.O., M.R.E. Porton can be sent by this route.

5. Volunteers are needed for tests as follows:—

(a) General Service ratings—20 ratings are required for each of the following dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>10th January, 1959</th>
<th>9th May, 1959</th>
<th>12th September, 1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>17th January, 1959</td>
<td>23rd May, 1959</td>
<td>19th September, 1959</td>
</tr>
<tr>
<td>Date</td>
<td>24th January, 1959</td>
<td>30th May, 1959</td>
<td>26th September, 1959</td>
</tr>
</tbody>
</table>

(b) Fleet Air Arm ratings—20 ratings are required for each of the following dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>2nd May, 1959</th>
<th>5th September, 1959</th>
<th>2nd January, 1960</th>
</tr>
</thead>
</table>

The names of volunteers for these tests, from ratings on United Kingdom Dared Service, should be forwarded to the Flag Officer Air (Home) or the Commodore, Naval Drafting, Hasemere, as appropriate by Commanding Officers as soon as possible. Reliefs will not be provided for volunteers selected for the tests.

6. There is no restriction on the number of times a rating can be accepted for these tests.

7. Ratings are to be routed to Idmiston Halt (Southern Region), which is on the London—Salisbury line between Andover and Salisbury. The majority of slow trains between Andover and Salisbury stop at Idmiston Halt (except on Sundays) but, on those that do not, passengers should alight at Porton Station. Onward transport will be arranged if the B.T.A. at Idmiston Halt (or Porton) is signalled.

8. In view of the possibility that ratings will not return to their ships and establishments as an organized draft, each rating should be issued with an individual return railway warrant. Railway meal orders for both the outward and return journeys should be issued where necessary.

9. Ratings will be victualled and accommodated at the C.D.E.E., Porton.

10. Two weeks' pay should be issued to each rating before drafting.

11. Ratings should take the following kit:

- Spare uniform suit or No. 8 suit.
- Change of underclothing.
- Toilet gear and boot brushes.
- Anti-Gas respirator.

Bedding and cutlery are supplied on loan at Porton.

12. The C.D.E.E., Porton, is not entitled to duty free tobacco privileges. Ratings drafted to the establishment should not be in possession of duty free tobacco (or cigarettes) in excess of the quantities allowed to be landed by H.M. (1950) paragraph 11.

A declaration on form M.O., signed by the Commanding Officer, is required for production to the Customs Officer on request.

AFO 2703/58 (Fig. 21.1), dated 7 November 1958

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The second notice is published the following year. AFO 2901/59 (Fig. 21.2) is similar in form to the previous one but two differences appear in the first paragraph. First, volunteers must be 18 or over. Second, the description of the tests is diluted, i.e. the word "physiological", which appeared in the previous notice, is omitted.

(Fig. 21.2) AFO 2901/59 dated 27 November 1959 (first part only)

No information about the tests appears in the next notice AFO 3114/60 (Fig. 21.3): here again the word physiological is omitted. Only the first part of this notice is shown as the remainder covers only travel and notification arrangements, similar in form to the later paragraphs in AFO 2703/58. Interestingly, Commanding Officers are urged to "use every effort to make volunteers available in sufficient numbers".

(Fig. 21.3) AFO 3114/60 dated 25 November 1960
The next notice, AFO 2482/61, is identical in the way the tests are described to AFO 2901/59 and has not therefore been reproduced. The next two notices also contain little information about the studies for which volunteers were sought. The first, AFO 2374/62 (Fig. 21.4), announces an extension to the tests listed in the previous notice.

(Fig. 21.4) AFO 2374/62 dated 7 December 1962

AFO 826/63 (Fig. 21.5) similarly contains no information about the tests. It also introduces a practice which recurs occasionally in later years: instead of giving full details of travel arrangements, and the like it refers to an earlier notice (in this case AFO 2482/61).

(Fig. 21.5) AFO 826/63 dated 3 May 1963
21.2.2 Levels of Risk

In some of the RN notices words appear along the lines of "the tests are carefully planned and are carried out under expert medical supervision". This phrase appears in four of the AFOs shown and in AFO 2482/61 which is cited. The words "the physical discomfort resulting from them [the tests] is usually very slight" appears in only one: AFO 2703/58.

The earliest references to risk in MOD documents found by the survey are listed below.

- 1929: War Office letters to the Air Ministry and Admiralty [1, 2] suggesting words to be used in recruitment notices include "The whole operation [of the test] is carried out under competent medical supervision and there is no risk of serious injury to the personnel concerned".

- 1932: War Office to the Air Ministry and Admiralty [3] suggesting terms for recruitment notices: "All tests are carried out with every possible care, and under the direct supervision of Medical Officers of the Three Services, whose duty it is to ensure that those who volunteer will incur no danger to their health."

- 1950: a War Office recruitment notice used in this year includes "the tests are carefully planned to avoid the slightest chance of danger" [9].

- 1953: the letter from the Director of Air Manning to RAF units [4] suggested the following words should be brought to the attention of volunteers: "the physical discomfort resulting from the tests is usually very slight. Tests are carefully planned to avoid the slightest chance of danger, and are under expert medical supervision." (apparently the same words were used by the Army and RN [5])

Later in 1953 words used about risk in previous recruitment notices were reviewed, following the death of a volunteer at Porton after a nerve gas trial. In May 1953 the Treasury Solicitor [10] commented on the information brought to the notice of personnel to encourage them to volunteer.

- The Treasury Solicitor notes that a War Office recruitment notice of 1950 "includes terms indicating that there was not the slightest element of danger, the sentence appears Tests are carefully planned to avoid the slightest chance of danger".

- The Solicitor goes on to say "[It is] Difficult to see how it was ever possible to say truthfully that tests with lethal gases did not contain the slightest chance of danger. The true position, I take it, is that the tests are arranged so as to eliminate all foreseeable danger, but that as the tests are designed for the purpose of obtaining further information about substances the properties and performance of which are to some extent unknown, there is always some possibility …… of a danger being discovered. It seems to me that one statement in the notice ought to be limited to "foreseeable danger".

The Treasury Solicitor's advice on changing the wording of recruitment notices was accepted by the War Office in June 1953 [11]. However, the reference to "foreseeable danger" does not appear in the RN AFO notices from 1958 to 1963. It is not clear why this is so although some correspondence has been found from 1959 which may have a bearing. Senior officials discussed in September 1959 [12, 13] the information given to volunteers about the tests at Porton.

- It was noted that the words "the discomfort and inconvenience caused by them [the tests] is very slight" had been "slightly relaxed because of the falling off of the number of volunteers". "The main object of the revision was to allay any fears about the nature of the tests, and possibly frightening words such as 'physiological' had been omitted" [12].
The nature of the ‘slight relaxation’ is not made clear but the words "the physical discomfort resulting from them is usually very slight", which appear in the 1958 RN notice (AFO 2703/58), do not appear in the next one (nor subsequent notice) which was published after the date of this discussion of senior officials. Further, the discussion might explain why "physiological" is omitted from RN notices after 1958.

Nonetheless, it would appear that the slightly relaxed wording carried the day, at least in some quarters. However, the Porton note produced in 1961 [7], mentioned earlier in this section, suggests the Army had not relaxed the wording and was still following the advice of the Treasury Solicitor in its recruitment notices ("The tests carried out at CDEE are carefully planned and are arranged so as to eliminate foreseeable danger"). On the other hand the RN and RAF were not [7].

The wording on risk was considered further in a meeting of Porton staff held in 1962 [14]. The record of the meeting notes:

"Administration instructions issued in letters to all home commands by the War Office in 1960 and 1961 and re-issued by other Service Ministries contained a paragraph:

"The tests carried out at CDEE [Porton] are carefully planned and are arranged so as to eliminate all foreseeable danger. They are carried out under expert medical supervision and any physical discomfort which may result from them is usually very slight"

This statement is clearly not true of the AFO issued by the RN in 1960 and 1961. The record of the Porton meeting goes on to say [14]:

"This wording was considered [by Porton as] unfortunate as it probably deterred volunteers".

Porton staff recommended that the "paragraph omit reference to physical discomfort and danger".

The meeting evidently produced suggestions for a new wording to be used in recruitment notices and Porton records that it "appeared in revised instructions sent out in May 62 and Dec 63" [14]. The new wording was as follows:

"The tests carried out at CDEE [Porton] are most carefully planned and are designed in order to develop means of protection against chemical warfare agents. It is not possible to list the many varieties of tests in which volunteers are invited to participate but they include respirators, protective clothing, decontaminants and studies of the effects of small safe concentrations of various drugs whilst carrying out different activities."

"Before any test takes place it is carefully explained to the individual, who is under no obligation to take part against his wishes and who is treated throughout as a volunteer"

"All tests are carefully controlled and result in little or no discomfort to the individual"

Despite the assertion, these words were not used in the RN AFO of 1962 or 1963. Presumably Porton meant that the revised instructions had been sent by them to Service Ministries. Nevertheless, these MOD documents suggest that the statements of risk which appeared in recruitment notices were tempered by the desire not to deter volunteers from coming forward.
21.2.3 The Right to Withdraw from Trials

The revised instructions formulated by Porton in 1962 refer to the right of volunteers to decide not to take part in tests. This right is mentioned in the review of procedures conducted by Porton in 1961 when civilian volunteers were being considered [7]:

"a Service volunteer is free to withdraw at any time, even in the course of a test".

But the revised instructions of 1962 are the earliest reference found by the survey which suggests this right should be explained in recruitment notices. Whether it was explained in notices produced in 1962 and 1963 is uncertain; AFO instructions of 1962 and 1963 carry no such explanation.

21.2.4 Volunteers' recollections

The questionnaire sent to volunteers sought their recollections about what the recruitment notices they had responded to had said about the purpose of the tests, risks and the right to withdraw. The replies to the questionnaire made by volunteers who went to Porton before 1964 are summarised in Table 21.1 which shows the percentage of volunteers who remember the contents of the notice3. Comments offered by volunteers on what they remember the notice saying are at Annex H (Section H.3.2). Some volunteers did not respond to a recruitment notice but were recruited by other means. Their recollections are listed at Annex H (Section H.3.4).

<table>
<thead>
<tr>
<th>Decade</th>
<th>Proportion who recollect the notice saying something about...</th>
<th>Any risks the trials might involve</th>
<th>Being able to withdraw from some trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940s</td>
<td>39%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>1950s</td>
<td>60%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>1960-63</td>
<td>59%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 21.1. Recollections of the contents of recruitment notices pre-1964

In reviewing these figures it should be noted that many of the volunteers whose responses are summarised in Table 21.1 remember that the notice they responded to said the tests were related to the common cold. Figure 21.2 removes the responses of these volunteers in order to present a true reflection of those who recollect notices giving information about other trials. It should also be noted that some notices did not contain full details but referred interested parties to earlier documents (see AFO 826/63 and DCI(Gen) 209/68 and 204/69). The figures may therefore be misleading if they reflect a volunteer’s recollection of this notice and not the connected one.

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3 The questionnaire (see Annex H) gave volunteers the option of answering that they could not remember. The statistics in Table 21.1 exclude these volunteers, and show the percentage of volunteers who responded "yes" from those who responded either "yes" or "no" to questions 2.2 to 2.4. This approach of excluding "Can't Remember" responses is repeated in the other statistical tables appearing in this chapter.
proportion who recollect the notice saying something about... the purpose of the trials... any risks the trials might involve... being able to withdraw from some trials

<table>
<thead>
<tr>
<th>Decade</th>
<th>Proportion</th>
<th>Risks</th>
<th>Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940s</td>
<td>29%</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>1950s</td>
<td>37%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>1960-63</td>
<td>44%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 21.2. Recollections of the contents of recruitment notices pre-1964 (excluding common cold references)

21.3. Recruitment notices from 1964

21.3.1 References in MOD Documents

With the establishment of the MOD in 1964 the nature of administrative notices changed. Administrative notices which applied to all three Services were published as Defence Council Instructions (General), abbreviated to DCI (Gen). Each of the three Services had their own DCI: DCI (RN) replaced the AFO. DCIs were published regularly by the MOD and the Service departments. Typically they would be distributed to all units and passed around or placed in an administration office in the form of booklets. Personnel serving at an RAF unit, for example, would have opportunities to see DCI (Gen) and DCI (RAF).

From 1964 recruitment notices calling for volunteers for Porton were distributed to units in formal DCIs [14]. Copies still exist of many of these instructions. The introduction of DCIs meant that Service departments did not need to write to units suggesting the words to be used in recruitment notices. Second, MOD documents concerning notices used at units before 1964 to recruit Porton volunteers suggest that RAF and Army units produced such notices themselves. The introduction of DCIs should have rendered this unnecessary. Further, from 1967 versions of some notices which appeared in DCIs were issued by the MOD specifically for display on notice boards at units. These are referred to as Notice Board Information (NBI). In some of the following DCI articles calling for Porton volunteers which appear in the next few pages, reference is made to an associated NBI being issued. Thus, if units wished to display a recruitment notice, in addition to the article in the DCIs, they could use the NBI issued by the MOD.

However, it is unclear how the words used in DCIs to call for volunteers were decided. In particular, no document has been found (nor any reference to files or documents) which suggests that Porton helped the MOD decide upon the words to be used in recruitment notices.

The first DCI recruitment notice appears below. It was published in a DCI (Army) in 1964 (Fig. 21.6).

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4 When the MOD was established, the Services became departments within it rather than retaining their separate Ministries.

Volunteers are required for physiological and medical studies conducted at the Chemical Defence Experimental Establishment, to develop means of protection against chemical warfare.

These tests are most carefully designed and supervised by a medical officer so that there is no danger to the individual.

This work, as well as being of the greatest importance to the national defence, also provides valuable information in the fields of medical science, health and industrial safety, rescue and fire fighting.

Officers and other ranks, of the age of 18 years and over, of medical category FE, serving in the United Kingdom are eligible to volunteer.

Volunteers are normally attached to C.D.E.E. for a period of two weeks but this may be extended to four weeks.

Other rank volunteers are eligible for extra pay. This amount depends on the number of tests completed but is usually at least 35s. 0d. a week.

(Issued with D.C.I. (Army) 37 of 1964)

Some features of the DCI continue themes seen in the AFO used before 1964, i.e. the likelihood of extra pay is cited as is the requirement for volunteers to be aged over 18. The following differences are noteworthy.

- The studies are explained in a little more detail than in the AFO recruitment notices of 1962 and 1963. The term "Physiological" is once again used to describe the tests and the term "medical" is used. The purpose of the studies is given as "to develop means of protection against chemical warfare". However, this description does not cover the full range of studies being conducted at Porton at the time. For example, earlier chapters show that riot control studies were underway which have no connection with developing protection against chemical warfare.

- The explanation of the studies is not as detailed as the words suggested by Porton in 1962. Porton had then recommended that recruitment notices should include the paragraph which appears below [14] carrying a much clearer and more accurate explanation of the studies being conducted. However, it seems that only the first sentence of this recommendation was accepted by the author of the Army DCI.

  "The tests carried out at CDEE are most carefully planned and are designed in order to develop means of protection against chemical warfare agents. It is not possible to list the many varieties of tests in which volunteers are invited to participate but they include respirators, protective clothing, decontaminants and studies of the effects of small safe concentrations of various drugs whilst carrying out different activities."

- The risk involved in the studies is described as "there is no danger to the individual". This assurance goes far beyond the suggestions encountered in MOD documents. The Treasury Solicitor had advised in 1953 that recruitment notices should say that studies avoided "foreseeable danger". Porton had suggested in 1962 [14] that any reference to danger should be omitted as it probably deterred volunteers but in this DCI there is a positive statement that "no danger" exists. It is not clear how this form of words came to appear in DCIs.

DCI (Gen) did not always carry full details of the tests; as in the earlier AFOs they often referred readers to Service DCIs for these details. The first example appears in DCI (Gen) 138/67 (Fig. 21.6). It contains no explanation of the purpose of the tests, any risk that may be
involved or the right to withdraw. These matters are left to the Service DCI. DCI (Gen) lists the recruitment periods for the following year and how they are allocated to the Services. As before it cites the number of volunteers required (12 per period). It also refers to the recruitment film made in 1965.

(Fig. 21.7) DCI (Gen) 138/67


1. The programme for volunteers for 1968 is given at the Annex to this D.C.I.


3. It is imperative that action is taken in adequate time when a time limit is laid down in any of the D.C.I.s. referred to in para. 2, particularly when security matters are concerned.

A/112/Miscellaneous/7020 (M.G.O. Sec. 4).

(Fig. 21.7) DCI(Gen) 138/67 continued.
In the second paragraph the DCI refers readers to Service DCI for full details. DCI (RAF) S215/67 (Fig. 21.8) and DCI (RN) 1559/66 (Fig. 21.9) are cited. Considering the RAF DCI first, from the italicised annotation near the top it is clear that this is the first DCI (RAF) article calling for Porton volunteers since 1964. The purpose of the trials is described in a similar way to the Army DCI of 1964. Similarly, the phrase “there is no danger to the individual” is included. The usual citation of benefits appears. However, the notice is explicit on the right to withdraw. Moreover, the words used are virtually identical to those suggested by Porton in 1962 [14], which were:

"Before any test takes place it is carefully explained to the individual, who is under no obligation to take part against his wishes and who is treated throughout as a volunteer."

(Fig. 21.8) DCI(RAF) S215/67
Volunteers for Tests at the Chemical Defence Experimental Establishment, Porton

(AF/11329/67/S10e(Air)—22nd November 1967)

(This instruction replaces DCI S119/64)

1. The Chemical Defence Experimental Establishment (CDEE), Porton, exists to develop means of protection against chemical warfare and provides this service not only to the Armed Forces but, through Civil Defence, to the whole population.

2. The CDEE relies on a regular supply of volunteers to take part in physiological and medical studies in connection with this work. These are most carefully designed and controlled so that there is no danger to the individual.

3. A scheme under which all three Services provide volunteers in turn has been in existence for many years, and there is a continuing need for such volunteers.

4. Eligibility. All male officers and airmen, aged 18 years or over, whose medical employment standard is not below A1G1Z1 (aircrew) or A4G1Z1 (ground personnel), and who are serving in the United Kingdom, are eligible to volunteer. There is no restriction on the number of times a man may be accepted for tests but preference will be given to those who have not previously volunteered.

Terms for Volunteers

5. Volunteers report initially for a period of two weeks. A proportion (about 50 per cent) will be required to stay on for a further two weeks. Units will be advised as early as possible when such retention is required.

6. Before any test takes place, it is carefully explained to the individual, who is under no obligation to take part against his wishes. All tests are supervised by a medical officer. Volunteers may withdraw at any time.

7. Extra pay is admissible to airman volunteers under the provisions of QR 2701. The total earned depends on the number of tests completed but usually amounts to at least 43s a week for each airman volunteer.

8. During the period of attachment to the CDEE, volunteers are not required to perform any routine duties or fatigue and they are normally free at the evenings or week-ends, subject to the exigencies of their tests. They may wear plain clothes out of working hours.

(U)1559.—Officers, Ratings and RM Other Ranks—Volunteers for Tests at Porton

(NP 2/N/MDG/471/4/66/B—2 Dec 1966)

1. Volunteers from General Service and Fleet Air Arm are required during 1967 for tests at the Chemical Defence Experimental Establishment, Porton, near Salisbury, Wilts. RN and RM personnel, officers, ratings and RM other ranks who are not less than 18 years of age are eligible to volunteer. In view of the importance attached to this work, Commanding Officers should direct the attention of their ships’ companies to this requirement and make every effort to permit volunteers to take part.

2. The tests are carefully planned and are carried out under medical supervision. On the basis of the number of tests undertaken, extra pay is given to RN ratings and RM other ranks, usually amounting to at least 35s 0d per week. During their stay at Porton, volunteers perform no military duties or fatigue and they are free every evening and at week-ends provided the exigencies of their test permit. They may wear plain clothes except when actually on test. Volunteers are required for a period of two weeks, but a proportion (about 50 per cent) will be required to stay for a further two weeks. When this happens, leave for the intervening week-ends can nearly always be granted. Tests usually begin on the Monday of each period and volunteers are required to report to the SMO CDEE by 0830 on the first day (see paragraph 6 below).

3. Volunteers are needed as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>Volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 January–20 January</td>
<td>20 February–3 March</td>
</tr>
<tr>
<td>23 January–3 February</td>
<td>6 March–17 March</td>
</tr>
<tr>
<td>6 February–17 February</td>
<td>3 April–14 April</td>
</tr>
</tbody>
</table>
This RN DCI is similar in form to the AFO in the previous section. Indeed it carries the same request to Commanding Officers to "make every effort to permit volunteers to take part". Although it is cited in the same DCI (Gen) as the DCI (RAF) S215, the terms used differ:

- the words "no danger" do not appear;
- no mention is made of the purpose of the tests, nor to the right to withdraw.

Why Service DCIs differ in the way the recruitment notice is couched is not clear. The differences suggest that the choice of words is made by the Service departments, rather than adopting some MOD-wide standard. Some credence is given to this theory by the markings on Service DCI, some of which carry a reference apparently to a name of an office. As examples; "S10e(Air)" appears in DCI (RAF) S215/67, "NP 2" in DCI (RN) 1559/66.
The practice of using an annual DCI (Gen) to announce the programme for volunteers over the coming year continued in 1968 and 1969 as can be seen from the next two DCI (Gen) of which only the first paragraphs are reproduced below.

(Fig. 21.10) DCI (Gen) 209/68 (first part only)

(Fig. 21.11) DCI (Gen) 204/69 (first part only)

Both these DCIs refer their RAF readers to DCI (RAF) S215/67 (Fig. 21.8). Therefore RAF personnel sufficiently interested in volunteering for tests at Porton in 1969 and 1970, and who took the trouble to unearth this DCI, would find that the tests carried "no danger to the individual". They would also read that they were under no obligation to take part in a test once it had been explained to them.

DCI (Gen) 200/70, used to advertise the programme for volunteers for 1971, is similar to the DCI (Gen) used for the previous two years (209/68 and 204/69). The DCI announcing the programme for 1972, DCI (Gen) 275/71 (Fig. 21.12), differs in the following respects. The differences to its predecessors are:

- volunteers from BAOR are invited for the first time, and the special leave arrangements for them are noted;
- a statement is now included on risk "these tests are neither unpleasant nor severe". Again, how it was decided these words should be included is unclear.

1. It is important to the Services that the flow of volunteers for tests at CDE Porton is maintained. These tests are neither unpleasant nor severe and living conditions for servicemen at Porton are good. Commanding officers should give this scheme maximum publicity and support.

2. Details of the scheme, together with full administrative and joining instructions are given in DCI (RN) 1383 of 1970, DCI (Army) Parts I to V, 131 of 1971 and DCI (RAF) 568 of 1970.

3. Each Service is to provide volunteers as laid down in the ANNEX to this DCI.

4. DCI (General) Parts I to V, 200 of 1970 is hereby cancelled.

A/112/Miscellaneous/7372 (MGO Sec 4)

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### ANNEX

#### CDE Porton

#### Programme for Volunteers 1972

<table>
<thead>
<tr>
<th>Dates 1972</th>
<th>Service</th>
<th>BAOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Jan–14 Jan</td>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>17 Jan–28 Jan</td>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>31 Jan–11 Feb</td>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>14 Feb–25 Feb</td>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>28 Feb–10 Mar</td>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>13 Mar–24 Mar</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>10 Apr–21 Apr</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>24 Apr–5 May</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>8 May–19 May</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>5 Jun–16 Jun</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>19 Jun–30 Jun</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>3 Jul–14 Jul</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>17 Jul–28 Jul</td>
<td>RAF</td>
<td></td>
</tr>
<tr>
<td>31 Jul–11 Aug</td>
<td>Army</td>
<td></td>
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<tr>
<td>14 Aug–25 Aug</td>
<td>Army</td>
<td></td>
</tr>
<tr>
<td>4 Sep–15 Sep</td>
<td>Army</td>
<td></td>
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<tr>
<td>18 Sep–29 Sep</td>
<td>Army</td>
<td></td>
</tr>
<tr>
<td>2 Oct–13 Oct</td>
<td>Army</td>
<td></td>
</tr>
<tr>
<td>16 Oct–27 Oct</td>
<td>Army</td>
<td></td>
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<tr>
<td>30 Oct–10 Nov</td>
<td>Army</td>
<td></td>
</tr>
<tr>
<td>13 Nov–24 Nov</td>
<td>Army</td>
<td></td>
</tr>
<tr>
<td>27 Nov–8 Dec</td>
<td>Army</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. 12 volunteers are required from each of the Services for those periods allocated to them.

   BAOR are asked to provide 6 volunteers to attend each of the 22 periods during 1972.

2. Volunteers usually have their weekends free. Separate leave arrangements are made for BAOR volunteers.

3. Volunteers are entitled to additional pay and generally earn between £15 and £25 for the fortnight period, depending on the amount of work they are called on to do.

4. A 16 mm colour film "Volunteers for Porton" specially made for showing to unit audiences can be obtained on loan from SKC Central Library. This film provides background information on the volunteer scheme and runs for 15 minutes. A new film is at present being made.
As in other examples this general DCI refers readers to Service notices for details. One of those cited is DCI (Army) 131/71 (Fig. 21.13), a copy of which appears below. The statement on risk is rather more positive than that in the DCI (Gen) mirroring the terms used in the earlier RAF DCI that "there is no danger to the individual".

The impression conveyed from this first tranche of DCIs is that very little uniformity was imposed on the terms used to describe the studies for which volunteers were sought. Routine administration matters, such as the number of volunteers required for each period and the length of the period (two weeks since 1964), are identical and, presumably, reflect the information sent by Porton to the MOD. But explanations of purpose, risk and withdrawal rights seem to have been decided by individual Service departments.

(Fig. 21.13) DCI (Army) 131/71

The next annual general DCI describing the programme for volunteers in 1973, DCI (Gen) T187/72, retains the phrase "these tests are neither severe nor unpleasant". But the following one, DCI (Gen) T172/73, omits it. Both continue to refer Army personnel to DCI (Army) 131/71. Thus, soldiers who were interested in volunteering for Porton trials in 1973 and 1974 would, if they consulted this DCI, be reassured that there was "no danger".

The DCI (Gen) S173/75 (Fig. 21.14) announcing the programme for volunteers in 1976 differs markedly from its predecessors.

- Much more is said about the nature and purpose of the trials for which volunteers are sought. The third category mentioned (at paragraph 3c.) refers to riot control agents and the ways of delivering them (SPAD, squirts and water cannon).

- No reference to risk appears.

- Servicewomen are now invited to volunteer and, although periods continue to be allocated to a particular Service, this is now not a rigid constraint.
1. The Chemical Defence Establishment (CDE) is located at Porton, near Salisbury, Wiltshire, and exists to develop means of protection against chemical warfare. It provides this service to the Royal Navy, the Army and the Royal Air Force, and through Civil Defence, to the whole population.

2. CDE relies on regular intakes of servicemen and servicewomen volunteers, who will receive additional pay, to take part in trials in support of medical studies and the testing of chemical defence equipment.

3. The trials for which volunteers are needed vary, but fall into the following main categories:
   a. Simple medical tests, eg tests to assess the effects on skin of experimental materials.
   b. Assessment of the properties of new protective clothing and respirators. This may involve studies into respiration and the ability to work efficiently in various environments.
   c. Assessment of the safety and effectiveness of substances used in peace-keeping activities and their means of delivery.
   d. Medical research into measures to prevent and treat chemical warfare casualties.

4. Each test period lasts for a fortnight but where it is inconvenient to units to release volunteers for longer than one week servicemen and servicewomen can be accepted at Porton for trials lasting from Monday to Friday in any one week. Volunteers staying a fortnight can earn additional pay of some £40 depending on the amount of work they are called upon to do.

5. For administrative purposes the yearly programme for volunteers 1976 is divided into three groups one for each Service and is shown at the ANNEX. However volunteers from any Service can be accepted at Porton for any of the listed periods.

6. Commanding Officers are asked to give these tests maximum publicity and to release volunteers where possible to take part in these trials.

7. Administrative details and joining instructions are given in DCI (General) S38/74.

8. NBI 3/75 is issued with this DCI.

(This DCI replaces DCI (General) T178/74 (time-expired))

<table>
<thead>
<tr>
<th>Dates 1976</th>
<th>Service</th>
<th>Total number required</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Jan – 16 Jan</td>
<td>RAF</td>
<td>12</td>
</tr>
<tr>
<td>19 Jan – 30 Jan</td>
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<td>12</td>
</tr>
<tr>
<td>2 Feb – 13 Feb</td>
<td></td>
<td>12</td>
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<tr>
<td>16 Feb – 27 Feb</td>
<td></td>
<td>12</td>
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<tr>
<td>1 Mar – 12 Mar</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>15 Mar – 26 Mar</td>
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<td>12</td>
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<tr>
<td>29 Mar – 9 Apr</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>26 Apr – 7 May</td>
<td>ARMY</td>
<td>12</td>
</tr>
<tr>
<td>10 May – 21 May</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>7 Jun – 18 Jun</td>
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<td>21 Jun – 2 Jul</td>
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<td>12</td>
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<tr>
<td>5 Jul – 16 Jul</td>
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<tr>
<td>19 Jul – 30 Jul</td>
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<tr>
<td>2 Aug – 13 Aug</td>
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<td>20 Sep – 1 Oct</td>
<td>RN</td>
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<td>4 Oct – 15 Oct</td>
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<td>12</td>
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<td>18 Oct – 29 Oct</td>
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<td>1 Nov – 12 Nov</td>
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<tr>
<td>15 Nov – 26 Nov</td>
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<td>12</td>
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<tr>
<td>29 Nov – 10 Dec</td>
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<td>12</td>
</tr>
</tbody>
</table>
From 1978 DCI (Gen) became known as DCI (Joint Service) although they retained the same function. Usually they carried a number unique to the Services, generally in the form of RAF J 325/78. Service administrative notices were no longer referred to as DCIs: DCI (RAF) came to be called RAF General Administration Instructions (GAI); DCI (Army) as Army GAI; and DCI (RN) as Navy Administrative General Orders (NAGO). As with DCI (Gen), DCI (Joint Service) articles about the Porton volunteer scheme were published annually and referred readers to Service administrative orders for details.

A special DCI (Joint Service) instruction was published in 1978 to explain the difference between the general observer scheme and special intakes. The first part of the instruction, DCI (Joint Service) 9/78 is reproduced at Fig. 21.15. That part not shown covers administrative arrangements for travel, clothing and recreational facilities.

(Fig. 21.15) DCI (JS) 9/78

9/78. VOLUNTEERS FOR TESTS AT THE CHEMICAL DEFENCE ESTABLISHMENT, PORTON (U)

[To be read in conjunction with DCI RN J 16/78; Army J 10/78; RAF J 7/78]

General
1. The Chemical Defence Establishment (CDE) exists to develop means of protection against chemical warfare. It provides this service to the Royal Navy, the Army and the Royal Air Force, and through Civil Defence, to the whole population.

2. CDE relies on a regular supply of volunteers from the Regular Services to take part in physiological and medical studies in connection with this work. The whole work is most carefully designed and controlled so that there is no danger to the individual. All trials are supervised by Medical officers.

Eligibility
3. All officers, servicemen and servicewomen of 18 years and over who are serving in the United Kingdom (and for Army personnel also in BAOR) are eligible to attend for trials provided their medical fitness is up to the following standards of their Service:

   RN ... P2      Army ... PES FE      RAF ... A4G1ZI

4. There is no restriction on the number of times a man or woman may be accepted for tests. Preference will be given to those who have not previously volunteered. A six month period has to elapse between visits to Porton for tests by the same person.

Method of calling for volunteers
5. a. Scheduled trials. The Armed Services in UK (including BAOR for Army personnel in Germany) are called upon to provide volunteers for the eighteen two week trials which are scheduled each year. Details are published in DCIs annually and in associated NBI.

   b. Special trials. The Armed Services in UK are also called upon to provide volunteers for specified special trials which can last from one day, up to six weeks duration. Volunteers are informed through their own Service channels:

   RN ... HMS CENTURION
   Army ... Headquarters UKLF
   RAF ... RAF Innsworth—Personnel Management Centre.
DCI (JS) 9/78 refers readers to the previously published DCI (listed at the top). The method of using signals to recruit special intakes, described in Part II, is outlined. The DCI does not give a description of the nature of studies conducted at Porton, presumably because this was a special DCI. However, the notice contains a couple of points worthy of comment.

- Prospective volunteers are again assured that the work carries "no danger to the individual".
- The right to withdraw from a trial, either before it begins or while it is in progress is affirmed.
- The meaning of the phrase "Special trials are organised for Servicewomen" is not clear. As detailed in Part II, it was not until 1982 that Porton decided that Servicewomen should not be asked to take part in early evaluations of drugs.

The next Joint Service DCI, announcing the programme for 1980, is reproduced at Fig. 21.16. The inclusion of an explanation of the tests, which first appeared in 1975, is continued. No words akin to "danger" or "unpleasant" are used. The right to refuse tests is explained.

The DCI claims that "All tests are rigorously examined by an external medical safety board before they are carried out". This presumably refers to the MC, which had members external to Porton.
1. The Chemical Defence Establishment (CDE), which is situated six miles north east of Salisbury near the village of Porton, is the UK centre for research and development work on defence against chemicals which may be used in war. At CDE the means of protection against chemical weapons are developed for the Royal Navy, the Army and the Royal Air Force.

2. The Service volunteer plays an essential part in the development of all chemical defence projects. CDE relies on regular intakes of servicemen and servicewomen volunteers from all three Services for its continuing programme of trials and tests into chemical defence. Volunteers are always needed. They will receive additional pay for participation in the various tests.

3. The tests for which volunteers are needed vary, but at present include:
   a. Skin sensitivity tests, eg tests to determine whether materials which might be considered for defensive equipment have any effect on the skin of wearers.
   b. Evaluation of new protective clothing and respirators. This may involve studies of the ability of personnel using the equipment to work efficiently in various climatic conditions.
   c. Assessment of the safety and effectiveness of substances used in peace-keeping activities and their means of delivery.
   d. Medical research into measures to prevent and treat chemical warfare casualties.

All tests are rigorously examined by an external medical safety board before they are carried out and volunteers retain the right to refuse any test offered to them.

4. The dates of assembly and dispersal for the formal programme of volunteers for 1980 are shown at the ANNEX. Additionally, where it is inconvenient to units and ships for personnel to be released for the dates listed, it is frequently possible to accept volunteers for other periods. Service women are now accepted for all dates provided that a total of at least four have volunteered for any one period.

5. The rates of additional pay are subject to review from time to time but a volunteer staying for a fortnight could earn up to £60 (less tax) depending on the number of tests undertaken. Unaccompanied volunteers from BAO and RAF Germany retain LOA up to 20 days. Every effort is made to ensure that the Service volunteer has an interesting and enjoyable stay at CDE. Accommodation has recently been improved; most volunteers will occupy single rooms; there are facilities for most sports; a club room and colour TV. There are also opportunities for visiting Salisbury and for sightseeing in the local area.

6. CDE is well aware of the many pressures on commanding officers and the difficulties of releasing personnel for duties outside the role of their command. However, it is stressed that this Service volunteer scheme plays a really important part in the development of chemical defence equipment. Commanding officers are therefore asked to give this DCI maximum publicity by repeating it in Daily/Unit/ Routine Orders, and to release volunteers whenever possible to take part in these trials.

7. Administrative details and joining instructions are given in DCI(Gen) S38/74 (time-expired) DCI RN 9/78 (time-expired), AGAI Vol 3, Chapter 117 and RAF GAIJ 5051.

8. NBI 27/79 is issued with this DCI.

ANNEX

CDE PORTON

Programme of Volunteers 1980

<table>
<thead>
<tr>
<th>Dates 1980</th>
<th>Total number required</th>
<th>Dates 1980</th>
<th>Total number required</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Jan to 18 Jan</td>
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<td>9 Jun to 20 Jun</td>
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<tr>
<td>21 Jan to 1 Feb</td>
<td>12</td>
<td>23 Jun to 4 Jul</td>
<td>12</td>
</tr>
<tr>
<td>4 Feb to 15 Feb</td>
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<td>7 Jul to 18 Jul</td>
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<tr>
<td>18 Feb to 29 Feb</td>
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<td>15 Sep to 26 Sep</td>
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<tr>
<td>3 Mar to 14 Mar</td>
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<td>29 Sep to 10 Oct</td>
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<td>17 Mar to 28 Mar</td>
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<td>14 Apr to 25 Apr</td>
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<td>27 Oct to 7 Nov</td>
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<td>28 Apr to 9 May</td>
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<td>12 May to 23 May</td>
<td>12</td>
<td>24 Nov to 5 Dec</td>
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</tr>
<tr>
<td>27 May to 6 Jun</td>
<td>12</td>
<td>8 Dec to 19 Dec</td>
<td>12</td>
</tr>
</tbody>
</table>
This DCI also asks Commanding Officers (paragraph 6) to publish the DCI in routine orders to maximise the publicity. The form and content of the DCI (Joint Service) published to advertise the programmes for 1981 and 1982 are virtually the same as the DCI shown at Fig. 21.16. DCI (JS) 82 (Fig. 21.17), published to advertise the programme for volunteers in 1983, reverts to the practice observed before of giving fewer details and referring the reader to individual Service publications.

(Fig. 21.17) DCI (JS) 82

DCI (JS) 83 (Fig. 21.18), used to announce the 1984 programme, continues the practice of referring to Service DCIs but has two important differences to the one shown at Fig. 21.18:

- it mentions that special intakes are sometimes required and notified by signal;
- the number of volunteers sought for each recruitment period is now reduced from 12 to 8.

Like its predecessor the details of the trials are described as "medical studies and tests of chemical defence equipment". Successive Joint Service DCI for the programmes of volunteers in 1985 and 1986 are the same as this one.
NBI from September 1983 and September 1984 appear on the next two pages.
NOTICE BOARD INFORMATION

DEFENCE COUNCIL INSTRUCTIONS

JOINT SERVICE
23 September 1983

IT IS IMPORTANT THAT YOU SHOULD READ THIS

23/83. VOLUNTEERS REQUIRED TO ASSIST IN TESTS AT THE CHEMICAL DEFENCE ESTABLISHMENT, PORTON.

1. Regular serving servicemen and servicewomen are required to take part in medical studies and tests of chemical defence equipment at the Chemical Defence Establishment (CDE). Volunteers will receive additional pay for assisting in this work.

2. CDE is located at Porton, near Salisbury, Wiltshire, and exists to meet Service requirements for better protection against chemical warfare. It provides this service to the Royal Navy, the Army and the Royal Air Force, and, through Civil Defence, the whole population.

3. The tests for which volunteers are needed vary, but at present include:
   a. Skin sensitivity tests, eg tests to determine whether materials which might be considered for defensive equipment have any effect on the skin of the wearer.
   b. Evaluation of new protective clothing and respirators. This may involve studies of the ability of the personnel using the equipment to work efficiently in various climatic conditions.
   c. Assessment of the safety and effectiveness of substances used in peace-keeping activities and their means of delivery.
   d. Medical research into measures to prevent and treat chemical warfare casualties.

All tests are rigorously examined by an external medical safety board before they are carried out and volunteers retain the right to refuse any test offered to them.

4. Each formal test period lasts a fortnight, but volunteers are accepted for one week only (Mon to Fri) if it is inconvenient to release them for longer. Special intakes are sometimes required as well; these are notified by signal, giving as much notice as possible. The benefits for volunteers attending are:
   a. Volunteers staying a fortnight can earn up to £80 (less tax).
   b. Accommodation for volunteers is mainly single room.
   c. CDE has facilities for most sports; a club room and colour TV.
   d. During their stay volunteers are excused Service duties, and are usually free in the evenings and at week-ends.
   e. Unaccompanied volunteers from BAOR retain LOA of up to 20 days.

5. Details of test periods are given in DCI RNJ 412 Army J 210 RAFJ 173/83. It should be noted that volunteers from any Service can be accepted for any of the listed periods. Full administrative details and joining instructions are given in DCI RN 9/78 (time-expired). NAGO’s Article 1904 (to be published), AGAI Vol 3 Chapter 117, and RAF GAI J5051.
NOTICE BOARD INFORMATION
DEFENCE COUNCIL INSTRUCTIONS
JOINT SERVICE
21 September 1984
IT IS IMPORTANT THAT YOU SHOULD READ THIS

16/84: VOLUNTEERS REQUIRED TO ASSIST IN TESTS AT THE CHEMICAL DEFENCE ESTABLISHMENT, PORTON
1. Regular serving servicemen and servicewomen are required to take part in medical studies and tests of chemical defence equipment at the Chemical Defence Establishment (CDE). Volunteers will receive additional pay for assisting in this work.
2. CDE is located at Porton, near Salisbury, Wiltshire, and exists to meet Service requirements for better protection against chemical warfare. It provides this service to the Royal Navy, the Army and the Royal Air Force, and, through Civil Defence, the whole population.
3. The tests for which volunteers are needed vary, but at present include:
   a. Skin sensitivity tests, eg tests to determine whether materials which might be considered for defensive equipment have any effect on the skin of the wearer.
   b. Evaluation of new protective clothing and respirators. This may involve studies of the ability of the personnel using the equipment to work efficiently in various climatic conditions.
   c. Assessment of the safety and effectiveness of substances used in peace-keeping activities and their means of delivery.
   d. Medical research into measures to prevent and treat chemical warfare casualties.

All tests are rigorously examined by an external medical safety board before they are carried out and volunteers retain the right to refuse any test offered to them.
4. Each formal test period lasts a fortnight, but volunteers are accepted for one week only (Mon to Fri) if it is inconvenient to release them for longer. Special intakes are sometimes required as well; these are notified by signal giving as much notice as possible. The benefits for volunteers attending are:
   a. Volunteers staying a fortnight can earn up to £90 (less tax).
   b. Accommodation for volunteers is mainly single room.
   c. CDE has facilities for most sports; a club room and colour TV.
   d. During their stay volunteers are excused Service duties, and are usually free in the evenings and at weekends.
   e. Unaccompanied volunteers from BAOR retain LOA of up to 20 days.
5. Details of test periods are given in DCI RN J 363, Army J 197 and RAF J 177/84. It should be noted that volunteers from any Service can be accepted for any of the listed periods. Full administrative details and joining instructions are given in NAGO’s Article 1904, AGAI Vol 3 Chapter 117, and RAF GAI J5051.
It is apparent from these examples of recruitment notices that explanations of the purpose of trials for which volunteers were sought, the risk that may be involved and the right to withdraw did not appear consistently. Indeed, statements of risk differed between notices of the same period.

From 1975 a more detailed description of the nature and purpose of the trials appeared, first in DCI (Gen) and then DCI (Joint Service). However, from 1982 this description disappeared from DCI (Joint Service) notices announcing the following year's programme which referred readers to individual Service administration instructions. It cannot be assumed that all Service personnel responding to the requests in Joint Service DCIs to volunteer would have consulted their Service instructions which gave the details: they may have simply told their unit's administration office that they wished to volunteer. If some volunteers proceeded in this manner, the only details of the tests they would have seen would be those in the DCI (Joint Service) article.

A similar point might be made for volunteers who responded to those annual DCI (Gen) advertising the recruitment programmes from 1968 to 1974. These DCIs were scanty in describing the tests and referred readers to other instructions for the details. Further, the individual Service instructions were not published regularly and may not have been easily accessible. For example, DCI (Army) 131/71 was cited in DCI (Gen) of 1971, 1972 and 1973.

21.3.2. Volunteers’ Recollections

The recollections of volunteers who replied to the questionnaire and attended Porton during the period 1964 to 1989 are summarised in Table 21.3, which is equivalent to Table 21.2 in that recollections about the notice saying something about the common cold are excluded. Comments from volunteers are at Annex H (Section H.3.3).

<table>
<thead>
<tr>
<th></th>
<th>proportion who recollect the notice saying something about...</th>
<th>any risks the trials might involve</th>
<th>being able to withdraw from some trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964-1969</td>
<td>44%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>1970s</td>
<td>42%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>1980s</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Table 21.3. Recollections of the contents of recruitment notices 1964-1989 (excluding common cold references)*

Taking all the replies to the questionnaire from volunteers who attended during the period 1964 to 1989, of those who remember the notice 40% (21 from 52) recall it saying something about the purpose of the trials. The equivalent figure for the replies from the period 1939 to 1963 is 38%.

These figures are not very different. It might be surmised that the volunteers who attended Porton during the period 1964 to 1989 remember seeing only the DCI (Gen) or DCI (JS) which gave few details but directed readers to Service instructions. Yet, between 1975 and 1982 these DCIs carried the more detailed description of the trials, shown in DCI (Gen) S173/75 (Fig. 21.14). Eight volunteers who replied to the questionnaire attended Porton between 1976 and 1983 (the DCI announced the programme for the year ahead). All can remember the notice but only half recall it saying something about the purpose of the trials.

The proportion of volunteers who attended Porton during the period 1964 to 1989 who remember the notice saying something about risk is 3.8% (2 from 53). This is higher than the proportion in the period 1939 to 1964 which is 2% (3 from 153). The inclusion of risk
The proportion of volunteers who remember the notice saying something about the right to withdraw is higher during the period 1964 to 1989, 10.6% (5 from 47), than during the period 1939 to 1963, 3% (4 from 138). It seems from MOD documents that this right was recommended to appear in recruitment notices only from 1961, whereas it is explained often in notices from 1964. Nonetheless many general DCIs carried no such explanation.

21.4. Common Cold

21.4.1. Volunteers' recollections

Many volunteers who replied to the questionnaire believe they went to Porton for tests relating to common cold research. Those volunteers fall into three categories: those who recollect that the recruitment notice they saw mentioned common cold tests; those who were led to believe at their unit that the tests were related to common cold; those who inferred (or gained an impression) from what the recruitment notice said that the tests were involved common cold research. It should be noted that 10% of those concerned who believe they attended for research connected with the common cold attended Porton on more than one occasion.

Other volunteers who have contacted the Porton Helpline have similar memories. Over 800 people have contacted the Helpline and the records of each enquiry have been inspected. Only a small number have offered their recollections of how they came to be recruited. Porton staff, when taking telephone enquiries over the Helpline, have not systematically questioned volunteers about their recollections. Eighteen volunteers who did not receive a questionnaire have mentioned common cold research during their enquiries. Their citations fall into the same three categories as those from volunteers who replied to the questionnaire. Table 21.4 summarises these recollections. The comments of volunteers are at Annex H (Section H.3.5).

<table>
<thead>
<tr>
<th>Questionnaire Replies</th>
<th>Helpline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice</td>
<td>Believed</td>
</tr>
<tr>
<td>1940s</td>
<td>5</td>
</tr>
<tr>
<td>1950s</td>
<td>72</td>
</tr>
<tr>
<td>1960s</td>
<td>17</td>
</tr>
<tr>
<td>1970s</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
</tr>
</tbody>
</table>

Table 21.4. Volunteers' recollections of common cold

21.4.2. MOD Documents

Comprehensive searches by staff of the MOD’s Historical Branches and by officers of the Wiltshire Police of MOD archives have not found any notices which sought volunteers for Porton by citing common cold research. However, it must be remembered that very few recruitment notices used before the introduction of DCI in 1964 have been found at all. No documents have been found which indicate either Porton or the Service Ministries suggested that volunteers be sought by citing common cold research. It would appear, therefore, that
any notices advertising the scheme in this way before 1964 would have been produced at the units and at the units’ own instigation.

It has been seen from the wording suggested by Porton and Service Ministries, and the examples of AFOs that recruitment notices used before 1964 probably carried little information about the tests. Readers would have been left to draw their own inferences about the nature of the tests for which volunteers were sought. Those inferences may have been shaped by what volunteers knew about Porton or what they were told at their units. There are suggestions from the comments of volunteers in their questionnaire responses that in the 1950s Porton was (wrongly) associated with common cold research. It is not certain how this misconception arose but the perception that Porton was working on common cold research may have been reinforced by the experience of volunteers who attended in the 1950s. Although by signing the official secrets act they were prohibited from talking about their experiences to their colleagues at their unit, it would be natural for them to be questioned by friends on their return. Volunteers may have described the symptoms they experienced. During the 1950s, the bulk of the human studies at Porton related to nerve agents, the effects of which could be described as being similar to cold or flu symptoms: runny nose, a tightness in the chest and aching eyes.

To further confuse the issue, the Common Cold Research Unit was based at Salisbury and a short distance from Porton. The Common Cold Research Unit began its work in the 1940s and started to recruit volunteers from 1946. One might expect that a new unit would embark on an energetic recruitment and advertising campaign. Indeed, one volunteer recollects seeing a BBC film about the unit in the 1950s:

(Oct 55): "I recall the BBC making a documentary about experiments carried out at the Common Cold Unit which I believe was shown during the mid 1950s. I am of the opinion that this documentary may have been instrumental in the confusion in the minds of certain servicemen when volunteering to take part in the experiments at CPRE [Porton]."

Despite these possibilities, MOD documents cast very little light on the recollections of volunteers who remember going to Porton for common cold research in the 1950s. However, documents do exist which are relevant to the recollections of volunteers who remember going to Porton for common cold research after 1960.

- All volunteers reporting to Porton between December 1960 and November 1961 took part in a survey which sought to find out why and how they had volunteered [15]. The 334 volunteers who went to Porton during this period were interviewed on the first working day after they had arrived. The report of the survey carried out in 1960 and 1961 suggests much time was devoted to the interviews. The reason for holding them was to study the personality of volunteers using the battery of screening tests developed for trials with psychological incapacitating agents. Those tests would have taken time to administer. Further, the report notes that volunteers were frank enough to comment on the behaviour and attitude of their superiors at their units: "at times steps might have been taken to dissuade [volunteers from going to Porton]". This suggests that the volunteers were encouraged to be honest.

- From 1964 to 1977 this survey was extended. Each volunteer arriving at Porton was interviewed. The interview collected information about the units and places the volunteer had served, an outline of his/her medical history and current habits, and (as before) the reasons for volunteering and how the volunteer had heard about the scheme. The information obtained during the interview was recorded on a card. These cards still exist at Porton; they number about 2250, one for each volunteer who attended Porton during the period, and are referred to as the "card index".

- The nature of the interviews which form the cards is less easy to judge. No documents have been found which explain the procedure, nor was any report
produced on the findings. The cards are hand-written. In many cases the handwriting is difficult to decipher.

Of the 334 volunteers who attended Porton for the first time between December 1960 and November 1961, only two said they thought they had volunteered for common cold research. Of the 2250 volunteers interviewed between 1964 and 1977, five mentioned that they believed common cold research was involved. Further, the statements made by these five are less than direct: one volunteer had checked and found out that the Porton tests had nothing to do with the common cold.

<table>
<thead>
<tr>
<th>Period</th>
<th>Volunteers surveyed</th>
<th>Volunteers mentioning common cold and incidence (%)</th>
<th>Volunteers completing questionnaire</th>
<th>Volunteers mentioning common cold and incidence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1960 to November 1961</td>
<td>334</td>
<td>2 (0.6%)</td>
<td>10</td>
<td>5 (60%)</td>
</tr>
<tr>
<td>1964 to 1977: card index</td>
<td>2250</td>
<td>5 (0.2%)</td>
<td>77</td>
<td>14(^5) (18%)</td>
</tr>
</tbody>
</table>

**Table 21.5. Incidence of recollections of common cold**

Table 21.5 compares the questionnaire recollections of the volunteers who attended Porton during the specified time periods with the statements with the statements made by those same volunteers at the time. It is clear that these incidences are not statistically comparable. The only conclusions possible are that the volunteers who visited Porton during the periods covered by Table 21.5 and replied to the questionnaire gave misleading answers when they were interviewed at Porton, have faulty recollections, have been influenced by the police investigation, media and recent publicity surrounding the Porton Down Volunteer programme.

### 21.5. Information given in initial briefing

The Porton note, written in 1961, when civilians were being considered as a means of augmenting the observer scheme refers to an initial briefing given to volunteers when they arrived at Porton [7]:

"Volunteers are briefed on their first morning as to what will happen to them and given a chance to withdraw. They are warned they may have injections or blood samples taken from them, and that they may be made to feel temporarily ill."

No other references to this initial briefing have been found. It is not possible from MOD documents to ascertain if this briefing was always given and the replies made by volunteers to the questionnaire only reveal their recollections of any initial briefing they received. It is possible that they were briefed but do not recall it. Table 21.6 summarises the recollections about whether a briefing was given.

[^5]: Not included in this figure are another two volunteers who attended Porton between 1964 and 1977 who have telephoned the Helpline and have said they believed they went to Porton for common cold research.
### Table 21.6. Volunteers recollections of whether an initial briefing was given

From these responses it is possible to conclude either that briefing became more frequent as time progressed or volunteer recollections are less reliable the more distant the event. Table 21.7 summarises the recollections of those volunteers who remember receiving an initial briefing about whether the purpose, any risks and the right to withdraw was mentioned. The comments made by volunteers on these three elements are at Annex H (Sections H.4.2, H.4.3, H.4.4 respectively).

<table>
<thead>
<tr>
<th>Decade</th>
<th>No. of replies</th>
<th>% of volunteers who remember receiving an initial briefing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940s</td>
<td>30</td>
<td>29%</td>
</tr>
<tr>
<td>1950s</td>
<td>242</td>
<td>62%</td>
</tr>
<tr>
<td>1960s</td>
<td>98</td>
<td>65%</td>
</tr>
<tr>
<td>1970s</td>
<td>36</td>
<td>82%</td>
</tr>
<tr>
<td>1980s</td>
<td>4</td>
<td>75%</td>
</tr>
</tbody>
</table>

### Table 21.7. Recollections of explanations given in initial briefing

Volunteers' recollections vary about explanations of risk and discomfort. Such a variation is to be expected as the type of studies in which volunteers took part varied. Some studies were simple: physiological measurements taken while exercising, performing tasks while wearing protective clothing and so on. Porton staff may have believed these studies did not carry an element of risk and therefore did not mention the topic during the initial briefing. It cannot be inferred, therefore, that where the initial briefing did not mention risk, this was misleading.

<table>
<thead>
<tr>
<th>Decade</th>
<th>% remembering the briefing said something about... the purpose of the trials?</th>
<th>... any risks the trials might involve</th>
<th>... being able to withdraw from some trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940s</td>
<td>75%</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>1950s</td>
<td>81%</td>
<td>18%</td>
<td>19%</td>
</tr>
<tr>
<td>1960s</td>
<td>80%</td>
<td>16%</td>
<td>58%</td>
</tr>
<tr>
<td>1970s</td>
<td>81%</td>
<td>19%</td>
<td>67%</td>
</tr>
<tr>
<td>1980s</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Some volunteers remember the initial briefing containing information about being paid for each test they took part in. One volunteer recalls the right to withdraw being qualified by a reference to payments. Recollections about what was said about payments are at Annex H (Section H.4.5).

21.6. Information given before experiments

21.6.1. References in MOD documents

Some of the recruitment notices used after 1964 say that the nature of the tests would be explained to volunteers. Some reports of human studies describe the information given to volunteers before the study which included the purpose of the study, the name or type of the agent or substance to be used and the effects which may be experienced (some of which may cause a degree of discomfort).

The reports of human studies which describe the information given to volunteers beforehand are listed below. Some points should be borne in mind.

- The list is comprehensive. That is to say, it contains all those reports, reviewed under the survey, which mention information being given to volunteers.

- Many reports have been reviewed but the list below contains a relatively small number; the majority do not mention information being given to volunteers. Reports are technical publications describing the methods used and the results obtained. Where a report does not mention information being given to volunteers, it is not safe to assume that none was given. Only one of the reports (dealing with a study of self-injection devices for atropine in 1952) includes details - in the form of the "instructor's talk" given to volunteers, included in Chapter 19 (Section 19.1.3).

- Many reports of human studies of treatments for nerve agent poisoning say that the study was conducted in line with the principles of the Helsinki Declaration. It is not clear quite what this means in terms of information given to volunteers but those reports appear in the list.

1940s

April 1942 [16]. Volunteers in a BBC study "were told they were going to be exposed to a gas which would do them no lasting harm."

June 1942 [17]. Men in a trial to assess DA as an irritating agent had it explained to them "that they were going to do the assault course before and after breathing a gas which would do them no lasting harm".

December 1945 [18]. Infantrymen to be exposed to nerve agent were told about the gas and of its effects.

August 1948 [19]. Volunteers were used in an experiment to find out if nerve gases could be detected by smell. "Most of the [volunteers] had no previous experience of these gases", suggesting that they were asked if they had been exposed to nerve gases before.

1950s

January 1951 [20]. An experiment to assess the effect of nerve agent on the eyes. "Subjects were briefed before the tests. …in all instances 'fresh' subjects without previous exposure" to nerve gas were used.

September 1953 [6]. In an investigation of the psychological effects of nerve agents, "all [volunteers] told nerve gas was the agent". All volunteers expected to be exposed to nerve gas, even though some (in the control group) were not.

August 1954 [21]. All volunteers were briefed and told of the aim of the experiment: to study the effects of "small vapour dosages of nerve gas on the fighting effectiveness of the infantry soldier". All were warned of the effects of the gas "as they would be on active service, but all were naturally apprehensive".

July 1955 [22]. A study of the effect of atropine and wearing respirators on the performance of men exposed to GB: "all men were told they would be exposed to nerve gas." "Very grateful to the officers and men who volunteered to undergo the considerable mental and physical discomfort involved."
January 1958 [23]. An assessment of lead compounds as potential riot control agents: before each exposure "each group of observers was briefed and invited to imagine that they were engaged in a riot and that the agent under trial was being used to disperse them".

October 1958 [24]. A trial to find a new riot control agent to replace CN: "the importance and purpose of the tests were explained to them before exposure".

August 1959 [25]. An experiment to assess the symptoms experienced by men after exposure to nerve gas. "Few of the men had heard of nerve gas before and none had been exposed previously".

1960s

June 1960 [26]. "Time was take to explain the purpose of each procedure to the subjects. "The symptoms caused by oral inhalation of Sarin [GB a nerve agent] were explained."

December 1960 [27]. A study to find out if men could don and continue to wear respirators while in a cloud of CS gas: the subjects were Army volunteers and "the purpose of the experiments being fully explained and every effort being made to achieve full co-operation".

January 1961 [28]. A study to find a technique to measure the pooling of blood in leg veins: "the nature of the experiment was explained to them in simple terms and each subject was allowed time to become accustomed to the experimental environment."

May 1961 [29]. A trial to investigate the most effective size of CS particles to use. The men participating were split into two groups. "All subjects were told prior to exposure that the material under investigation was a new riot-control agent"... [for men in the second group, it was] emphasised that although the agent was unpleasant previous subjects had successfully withstood a full 5 minute exposure, effects were maximal in early part of exposure and declined thereafter, all unpleasant symptoms were rapidly reversed on leaving the chamber."

July 1961 [30]. A study to find out the effect of CS on breathing. "Subjects were told that the material under investigation was a new riot-control agent and that its effects would be unpleasant. However, it was also emphasised that previous subjects had successfully withstood a 5 minute exposure, that effects were maximal in the first minute of exposure and declined thereafter and that all unpleasant symptoms rapidly passed off on leaving the chamber."

June 1964 [31]. An investigation to find out if men became more able to cope with CS after repeat exposures. To measure the ability of men to cope they performed a simple task, sorting cards into suits. "It was explained to the volunteers before their first exposure that the material under investigation was a new riot-control agent, and that although it would cause some physical discomfort the effects were neither dangerous nor lasting. The arrangement of the apparatus in the chamber was pointed out to them and they were instructed in the performance of the simple task."

March 1965 [32]. A comparison of CS and CR. "Subjects were told that the object of the trials was to compare ... riot control agents. “After a verbal description, the men were taken into the chamber and shown the whole arrangement ... and the detailed procedure was explained to them a second time."

May 1967 [33]. In a later trial with LSD, the men "would be told that on one day of the trial they would be given a drug. They would be informed of the effects that they might experience."

1970s

May 1971 [34]. A study of CS under the Himsworth enquiry: "All were to some extent familiar with the effects of the gas and the majority had experienced them personally."

May 1975 [35]. A study to find out a simulant for nerve agent miosis: "successive small groups of volunteers were interviewed and the procedure explained to them."

August 1977 [36]. A study to investigate treatments of diazepam: "before the men volunteered for the experiment its purpose was explained to them and they were also told of the possible effects of the drugs to be used. For obvious reasons they were not told the names of the drugs or that one of them was a placebo."

March 1979 [37]. A study with pyridostigmine: "all men used were volunteers who had the experiment explained to them."

August 1979 [38]. Atropine and P2S absorption: "the study was carried out in accordance with the provisions of the Declaration of Helsinki."

1980s

August 1980 [39]. Evaluation of the combopen: "the studies were carried out in accordance with the provisions of the Declaration of Helsinki."

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February 1981 [40]. Combopen study: "they were fully informed of the nature of the trial in accordance with the Declaration of Helsinki."

May 1981 [41]. Atropine and P2S absorption: "the studies were carried out in accordance with the Declaration of Helsinki."

August 1981 [42]. Pyridostigmine study: "the nature of the experiment was explained to them."

December 1981 [43]. Pyridostigmine study: "the purpose of the experiment was explained."

July 1982 [44]. Therapy by injection study: "as far as could be determined no man had previous experience of the effects of diazepam." "the nature of the experiment was explained to the men before they were invited to volunteer. However, although the general properties of the drugs were described, for obvious reasons the subjects were not told the drug names or that placebos would be used."

August 1982 [45]. Atropine and P2S absorption: "the trial was carried out in accordance with the Declaration of Helsinki."

October 1982 [46]. Pyridostigmine study: "the investigation was carried out in conformity with the requirements of the Declaration of Helsinki."

"Details of the investigation were explained to them."

March 1983 [47]. Pyridostigmine study: "the investigation was carried out to conform to the requirements of the Declaration of Helsinki."

September 1983 [48]. Pyridostigmine study: "all studies were conducted according to the provisions of the Declaration of Helsinki."

March 1984 [49]. Pyridostigmine study: "the experiment was explained to them."

May 1984 [50]. Pyridostigmine study: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

October 1984 [51]. Diazepam study: "the study was conducted according to the provisions of the Declaration of Helsinki."

December 1984 [52]. Diazepam and TL4914 study: "the study was conducted according to the provisions of the Declaration of Helsinki: 1964 and 1975 revision."

January 1985 [53]. Atropine and car driving: "the study was conducted according to the provisions of the Declaration of Helsinki: 1964 and 1975 revision."

May 1985 [54]. Pyridostigmine study: "the investigation was carried out in conformity with the requirements of the Declaration of Helsinki."

July 1985 [55]. Transdermal patches: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

September 1985 [56]. Pyridostigmine study: "all studies were conducted within the provisions of the Declaration of Helsinki."

September 1985 [57]. Pyridostigmine and SFEMG: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

September 1985 [58]. Evaluation of injection therapy: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

November 1985 [59]. Diazepam and injection therapy: "the study was conducted according to the provisions of the Declaration of Helsinki."

September 1986 [60]. Physostigmine study: "the study was conducted in accordance with the provisions of the Declaration of Helsinki and was explained in detail to each subject."

September 1986 [61]. Pyridostigmine and injection therapy: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

October 1986 [62]. TL4914 study: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

November 1986 [63]. TL4914 study: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

January 1988 [64]. Physostigmine by IV injection: "the study was conducted in accordance with the provisions of the Declaration of Helsinki."

July 1988 [65]. SFEMG after pre-treatment and therapy: "The study was ... fully explained to volunteers taking part. The study was conducted in accordance with the provisions of the Declaration of Helsinki and the guidelines of the Royal College of Physicians (1984)."
Sometimes information about the trial was intentionally withheld from volunteers. From the list above it can be seen that the names of some therapeutic drugs were not given to volunteers. Another reason for not giving volunteers many details arose during the studies and trials with psychological incapacitating agents. Many of these investigations saw the volunteers who participated split into two groups: one who received a dose of the agent and a second, acting as controls, who received a placebo. If the controls knew the name of the agent and its likely effects their behaviour might be affected. This seems to have been recognised in the early 1960s.

- In meetings of the BC in November 1961 [67] and March 1962 [68], Porton staff were asked if the volunteers were to be told which psychological incapacitating drug they would be exposed to. The responses suggest that Porton did not give this information to volunteers.

The second field trial with LSD, Recount, provides a clear example of a case where information was withheld. The trial (as described earlier) sought to find out if the controls were affected by the behaviour of the drugged men. Various documents refer to the information to be given to volunteers before Recount. These are listed below.

- COSHE discussed the plans for Recount in May 1966 [69]: “care would be taken never to inform the volunteers of the nature or name of the drug being administered”

- The introduction to the Recount report [70] states: "the nature of the compound to be tested was not mentioned neither was any clue given as to what symptoms might be expected".

- Nevertheless, the report of the trial notes that the behaviour of the controls was similar to that of the drugged men and that LSD had little effect on the way the men performed their tasks. The explanation for this was cited in the ABC meeting of October 1966 [71]: it was "unfortunate that all the men knew in advance LSD25 was the drug to be used in the trial. This information had to be communicated to the Colonel of the regiment [from which volunteers were drawn] before the trial".

This lesson was applied to the third field trial with LSD, Small Change. This trial again sought to assess how dosing some men with LSD, but not others, affected military efficiency. The report of the trial notes [72] states: subjects were given a "general outline of the purpose of the trial... For obvious reasons they could not be informed of the nature of the compound to be used."

The extracts from reports suggest information was given although only a small proportion of reports of human studies include statements to that effect. Almost every report of therapy studies in the 1980s mentions that information was given to volunteers and/or that the Declaration of Helsinki was complied with. Other MOD documents describe the practice adopted at various times over giving information to volunteers. They are listed below.

August 1944 [73]. "Only very rarely are more serious results [than minimum effects] sought and then the observer is told fully what results are expected".

November 1957 [74]. "Conditions are always carefully explained to the volunteers".

December 1974 [75]. "as far as possible, experiments are carefully explained to the volunteers".

December 1975 [76]. "From his conversations with volunteers he [a member of Porton staff] was confident that experimenters were punctilious about explaining all the details of experiments".

March 1978 [77]. "... it was essential that they [the volunteers] should be given an explanation within the limits of their comprehension..." "In fact, that was already standard practice at CDE."
February 1986 [78]. “Before each experiment the researcher briefs the volunteers and explains the trial procedures”.

21.6.2. Volunteers’ recollections

The questionnaire asked volunteers what they could remember about information given to them before each trial in which they took part. Questions sought to find out if volunteers were told anything about the agents or substances to be used, and the form of discomfort that may be involved. The latter sought to understand if the effects of the substances were explained. Table 21.8 summarises the replies made by volunteers to these questions. The percentage of volunteers who can remember what they were told, but recollect being told nothing appears in the “None” column. Comments made by volunteers are at Annex H (Section H.5.2).

<table>
<thead>
<tr>
<th>Decade</th>
<th>No. of replies</th>
<th>Before how many trials was information given to volunteers about the substances to be used?</th>
<th>…… about whether you might feel any discomfort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All  Most  Some  None  CR</td>
<td>All  Most  Some  None  CR</td>
</tr>
<tr>
<td>1940</td>
<td>30</td>
<td>5     -     4     14 (61%)</td>
<td>3     -     5     14 (64%)</td>
</tr>
<tr>
<td>1950</td>
<td>242</td>
<td>28    16    48    89 (49%)</td>
<td>32    14    60    74 (41%)</td>
</tr>
<tr>
<td>1960</td>
<td>98</td>
<td>13    11    22    33 (41%)</td>
<td>16    7     35    23 (28%)</td>
</tr>
<tr>
<td>1970</td>
<td>36</td>
<td>10    10    5     8  (24%)</td>
<td>8     4     15    6  (18%)</td>
</tr>
<tr>
<td>1980</td>
<td>4</td>
<td>3     -     1     -</td>
<td>1     -     1     1  (33%)</td>
</tr>
</tbody>
</table>

Table 21.8. Recollections of information given before trials

In the early period covered by the survey (1940-1969), about half of the responding volunteers do not recollect being told about the substances to be used before taking part in trials. That percentage falls in the 1970s and 1980s. The interpretation of the volunteers’ memories of what was said about discomfort is not easy, as some studies they took part in may not have been expected by Porton staff to induce discomfort. Generally, the percentage of volunteers who do not recall being told about discomfort reduces over time.

The questionnaire also asked volunteers to recall whether they were told before the study what to do if they felt discomfort during it. Table 21.9 summarises the replies.
<table>
<thead>
<tr>
<th>Decade</th>
<th>No. of replies</th>
<th>Before how many trials was information given... about what to do if you felt discomfort?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All</td>
</tr>
<tr>
<td>1940</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>1950</td>
<td>242</td>
<td>15</td>
</tr>
<tr>
<td>1960</td>
<td>98</td>
<td>12</td>
</tr>
<tr>
<td>1970</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>1980</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 21.9. Recollections of instructions in cases of discomfort given before trials

As before, the interpretation of these recollections is not easy, as some studies may not have been expected to induce discomfort. Volunteers offered a few comments on what they remember about the instructions they were given if they were to experience discomfort. These are given at Annex H (Section H.5.3).

21.7 Participation in studies

21.7.1. Background

The previous section considered the information given to volunteers before each study started. During the meeting of the BC held in November 1958 one reason for giving this information was explained. "Conditions are always carefully explained to the volunteers so that they have a chance of withdrawing from the experiment if they wished to do so." [74] An earlier reference, a note written in August 1944, conveys a similar impression: "[When] more serious results [are] sought … the observer is told fully what results are expected and given full freedom to refuse" [73].

In this example information was given so the volunteer could decide whether or not to take part in the study before it started although this was not the only form of the "right to withdraw" that was practised. Senior officials of the War Office were told by a member of Porton staff in September 1959 [79]:

"On arrival at Porton the men were told the exact nature of the tests to which they could be subjected and were given an opportunity of refusing to go on with them. Should they refuse they would be sent back to their units as unsuitable, but no reason would be given and no victimisation follow".

"The men were also given the opportunity to refuse individual tests and on these occasions some did, largely because they might feel a little off-colour after previous tests."

Porton explained that men might also refuse procedures during a test, for example, "because they were not prepared to have another blood sample taken".

Accordingly, the right to withdraw had three forms.

1. leaving Porton, after the arrival briefing and before participating in any trials (this might be termed "complete withdrawal of services as a volunteer");
2. refusing to take part in a particular study once it had been explained, but before it started;

3. having started a study, refusing to undergo some of the procedures involved in it or withdrawing completely from the study.

The next section cites examples where these forms of refusal were exercised by volunteers. That some volunteers exercised this right reveals nothing about whether and how they consented to participate in studies; it merely indicates that volunteers were allowed to refuse. The subsequent section considers how volunteers were "given the opportunity to refuse individual tests".

### 21.7.2. Instances of refusals

Refusals are recorded in the experimental logs (Annex J). There are few examples of volunteers leaving Porton after the arrival briefing (Form 1) but there are more instances of volunteers withdrawing after having participated in some studies. Table 21.10 summarises the refusals recorded in the experimental logs.

<table>
<thead>
<tr>
<th>Decade</th>
<th>Total no. of volunteers refusing</th>
<th>Complete withdrawal from programme (form 1)</th>
<th>Refusal to participate in a specific study (form 2)</th>
<th>Refusal to continue study or undergo procedure (form 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950s</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>1960s</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>1970s</td>
<td>50</td>
<td>5</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>1980s</td>
<td>15</td>
<td>2</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

**Table 21.10. Refusals recorded in experimental logs**

Two men were allowed to return to their unit at their own request in August 1956 but the first refusal to take part in a specific test which is recorded in the logs occurred on 1 September 1959 when a volunteer refused to have a second blood sample taken after taking part in a single breath trial with GB. Uniquely, the record of this refusal is accompanied in the log by a written statement of refusal which is signed by the volunteer and by a witness. It is not clear if this should be taken as an indication of surprise that a volunteer had refused or if refusing to give a blood sample was regarded as foolhardy.

It would appear that the experimental logs do not record all refusals because three reports cite refusals which do not appear in the experimental logs. All concern studies with irritant agents: the first with DA and DC in 1942 and the last two involving trials in which volunteers tasted food or water contaminated by a riot control agent. Details are given below.

- **June 1942** [17]. Men were asked to complete performance-measuring tests in an atmosphere of DC: one man "refused to do the exercise test but carried on to do all the other tests". Subsequently, the effect of DA was measured by monitoring the performance of men completing an assault course. The first run over the assault course was timed, then the men were exposed to DA and completed the assault course a second time: "two men did not feel like taking any further part in the trial [after the first run]. The remaining 137 subjects were exposed either to DA or the inert smoke".
May 1971 [34]. The investigations carried out for the Himsworth committee included a study of the palatability of food exposed to CS. The report of the study [34] contains several comments about refusals.

- “From the outset, there was considerable difficulty in recruiting volunteers to sample the food – and this eventually caused the termination of the investigation.”
- The difficulty in recruiting volunteers precluded the "use of large unselected test groups and it was decided to use a small trained tasting panel. In the event the unpleasant nature of the tests caused many withdrawals and it was impossible to maintain a standing panel”.
- Experiment 2 (14 volunteers): most volunteers refused to sample some items.
- Experiment 3 (16 volunteers): in general subjects declined to taste food stuffs. 7 attempted to smoke cigarettes but rejected them after a few puffs.

June 1975 [80]. A study was conducted to determine whether it was possible for men to detect that drinking water had been contaminated with CR: "the experiments were unpopular and when volunteers were forthcoming they were often reluctant to participate in more than one trial".

Some volunteers who replied to the questionnaire cite their recollections of refusals. None of these recollections are mirrored by an entry in the experimental logs. The comments are at Annex H (Section H.6.2).

21.7.3. Consent to participating in a study

As mentioned earlier, Porton explained to senior officials in 1959 that volunteers were "given the opportunity to refuse" to take part in a study. This opportunity might be presented indirectly or directly. Having explained the right to withdraw, either at the initial briefing or after describing the study in prospect, it might be assumed that volunteers who were not comfortable with the idea of the study would, of their own volition, decide to exercise their right to withdraw and choose not to participate in the study. Here, the opportunity to withdraw is presented indirectly. Presenting the opportunity directly might involve describing the trial and then asking volunteers if they were happy to participate in it, so that their explicit agreement was obtained.

Some MOD documents note that the right to withdraw was explained to volunteers before a study started:

- May 1967 [33]: "The men would be informed of the effects that they might experience and would then be at liberty to withdraw from the trial if they so wished."
- May 1971 [34]: Before the test "it was explained that they were free to withdraw from the study at any time if they wished to do so."
- December 1974 [75]: "experiments are carefully explained to volunteers who may refuse to take part or withdraw at any time."

Others seem to record a more direct approach. The report of a miosis study in May 1975 notes "their [the volunteers] free consent was obtained" [35]. Similar statements can be found in the reports listed earlier that cite the Declaration of Helsinki. It is not clear whether this means volunteers were asked directly if they were happy to participate but COSHE, in discussing consent in March 1978, [77] observed:

"it is essential that they [the volunteers] should be given an explanation within the limits of their comprehension and indicate their consent to the procedures before witnesses. In fact that was already standard practice at CDE".
Obtaining consent before witnesses suggests that volunteers were asked if they were happy to participate in studies and that their consent was obtained verbally (in the 1980s a procedure was adopted under which the agreement of volunteers to participate in studies was obtained in writing).

The questionnaire sought to find out whether volunteers remember being asked if they wanted to take part in a trial before it began. The responses are summarised in Table 21.12. The percentage of volunteers who can remember but recollect that they were not asked is shown in brackets in the "none" column.

<table>
<thead>
<tr>
<th>Decade</th>
<th>No. of responses</th>
<th>Before how many studies were you asked if you wanted to take part?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All</td>
</tr>
<tr>
<td>1940</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>1950</td>
<td>242</td>
<td>14</td>
</tr>
<tr>
<td>1960</td>
<td>98</td>
<td>15</td>
</tr>
<tr>
<td>1970</td>
<td>36</td>
<td>4</td>
</tr>
<tr>
<td>1980</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 21.12. Recollections of being asked to take part

From Table 21.12 it can be seen that 81 volunteers recollect being asked if they wished to participate in a study before it began. The majority remember being asked as part of a group. Two volunteers in the 1950s recall being asked when they were on their own: 12 in the 1960s and 4 in the 1970s. Volunteers’ comments on being asked and on refusing to participate are detailed at Annex H (Section H.6.3).

21.7.4. Introduction of written agreement to participate in studies

At various times the introduction of a procedure to obtain the written agreement of volunteers to participate in studies before they began was discussed. Such a procedure was introduced in 1987 but had been mooted in 1959 when proposals for expanding nerve agent experiments were discussed. The opening exchanges can be summarised thus:

- The Admiralty in November 1959 [81]: "In our view the proper safeguard would be that before a man undergoes any of these new tests at Porton he should be handed a printed description of the test and all that it may involve in the way of danger and discomfort, and should be asked to sign a declaration to the effect 'I have read and understand the description of the test and am willing to undergo it'. This would have to be done on each and every occasion of applying one of these experiments on the basis of no signature, no test ".

- The War Office in December 1959 produced a draft of the paper to be submitted to Ministers [82]: "I recommend, therefore, that every volunteer before he undergoes any of these new tests should be given a written description of the test stating clearly in non-medical terms what it may involve in the way of danger and discomfort, this written explanation to be supplemented where necessary by

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6 At the time, Porton had proposed two expansions of nerve agent studies: human tests with VX and tests involving the intravenous injection of liquid GB.
oral explanation by the medical officer in charge of tests, as has been the practice in the past).

- In the same paper: "We might require all volunteers to sign a declaration but I am of the opinion that such a certificate is not of help to the volunteer and does little to protect the Department; either the certificate would become pure routine which men sign without reading or it would make them suspect that they were about to be subjected to something very dangerous, the responsibility for which we are trying to pass to them”. "Recommend that volunteers should not be called upon to sign a certificate.”

- January 1960, at a meeting of senior officials [83]: "The Admiralty and Air Ministry continue to press for certificates to be used, though War Office thought it unnecessary". Further "if it was mandatory for volunteers to read a description of the test ... a security point” would be involved” The War Office commented that "in another connection the requirement to sign a certificate had prejudiced the number of volunteers: indeed in at least two cases it had meant that no volunteers were available".

The certificate mentioned (sometimes referred to as a "blood-chit") was aimed at protecting the department in the case of injury by suggesting that the outcome of the test is somehow the responsibility of the volunteer. It was widely agreed that trying to throw responsibility onto the volunteer was wrong [10, 84]. This was noted in revisions proposed by the MOD to the paper being prepared for Ministers [85]:

We suggest [the paper] "should be expanded to deal with ... the procedure that will be used to ensure that they [the volunteers] clearly understand what they are being asked to undergo". "There was some discussion of these points a year ago - signing "blood chit" should not be required ... Points should be made about the danger of the certificate becoming routine and therefore replacing a patient and careful explanation to a man who may find the subject difficult to follow, even when put in allegedly non-medical terms."

It is evident here that the Admiralty's aspiration to make sure that volunteers were given information about the test they were being asked to take part in, and then signed to agree to take part in the test, had somehow been translated into a desire for a blood-chit. That was not the Admiralty's intention: the purpose of the written description of the test was to serve as tangible evidence that the volunteer had received information. In turn, the signature of the volunteer demonstrated that he understood the description and agreed to take part in the test. The Admiralty re-asserted its original aspiration in December 1960 [84]:

"Agree that it would be wrong to use a blood chit. But still believe volunteers should sign some kind of form to say that conditions of the test have been explained to them and that they understand them.” “Presumably it would be up to the CDEE to make certain that this procedure was properly carried out”.

The discussion closed when the proposal to expand the nerve agent studies was rendered unnecessary by the change in UK chemical warfare policy but it illustrates the points associated with signed written consent: the entanglement with the question of responsibility for the test (the "blood-chit" and hence compensation) and the worry over the security of giving out written descriptions of the test.

In October 1982 [86] the issue of signed consent was briefly reconsidered after a serviceman had apparently left Porton without the permission of the experimental staff before the trial in which he was involved was finished. It was felt necessary to prepare a document outlining the “rights and obligations” of the Porton volunteer. This was done and in January 1983 [87] Porton staff noted that “[consent] is still being carried out verbally and a written and signed

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7 This reference suggests that security considerations may have prevented information being given to volunteers.
undertaking of acknowledgement was deemed undesirable at this juncture”. No explanation was given why this was undesirable.

In June 1985 the topic was raised again [88]. Porton staff decided that the experimenter and a witness should sign a statement that the volunteer had been given all the information necessary for him to give his consent. By March 1987 [89] consent forms had been produced and reviewed by the independent Ethical Committee. The consent form was accompanied by a "lay statement" [90] which outlined the nature, requirements and possible risks of the experiment. Signing the consent form did not diminish the volunteer's legal rights but would establish "the acceptance of volunteer status and would formally impart the right of withdrawal from experiments" [90]. Examples of the consent form and the lay statement introduced into use in 1987, and still in use today, are at Annex K.

21.7.5. Compensation

As previously explained the use of a "blood-chit", through which the department would be protected in the case of injury, had been rejected in 1960 and it was noted the following year [7] that Service volunteers were fully covered by the Injury Warrant. Indeed this arrangement dated back some time. The Secretary of State for War explained to Parliament in 1930 [91] that Service volunteers at Porton could receive "compensation under the procedure of injury attributable to service." The provisions of the Injury Warrant were implemented to pay the pension of the volunteer who died after a nerve gas study in 1953. After 1961 no references to compensation have been found until 1980.

In March 1980 COSHE discussed the standard of record-keeping at Porton: "From the developments in the USA it seemed probable that the frequency of claims for compensation would increase in the UK; ... impeccable records were essential" [92]. Later in 1980 COSHE re-affirmed that the "normal injury warrant covering compensation applied" still to Service volunteers [93].

The arrangements for compensation were reviewed at the first meeting of the Ethical Committee in January 1987 [94]. Porton staff explained to the committee the arrangements for compensation then in prospect.

"In the event of an injury occurring which was sufficiently serious to warrant a medical discharge, then medical records would be submitted automatically to the DHSS for consideration for a disablement pension";

"If the current attempt to repeal Section 10 of the Crown Proceedings Act (1947) was successful, then volunteers who felt that they had suffered injury due to the negligence of MOD personnel, would be able to submit a claim for Common Law compensation."

The EC was unanimous that these arrangements "fell short of the desirable", and generally agreed that a "no-fault" system of compensation should be operated for research on healthy subjects, akin to the system operated by the DHSS. Indeed, the EC felt it would be difficult to approve studies on volunteers in the absence of an "appropriate" compensation arrangement.

A day after this meeting Porton submitted written advice to MOD Ministers to clarify the situation [95]. The advice cited the guidelines published by the RCP in the autumn of 1986:

- The sponsor should agree to pay compensation for injury, accident, ill-health or death caused by participation in research study "without regard to the proof of negligence and without delay”. The provision for arbitration of disagreement should be included.

- Where there is doubt about causation “the benefit of the doubt should be given to the volunteer".
• Where necessary, the sponsor should take out appropriate insurance to cover compensation “independent of proof of fault”

Ministers were advised that the independent Ethical Committee would be working to these guidelines and would expect the consent form which is to be signed by volunteers to contain an assurance regarding compensation that is in line with the RCP guidelines. Porton noted that the Public Health Laboratory Service (PHLS) was already using consent forms which contained a “no-fault clause” under which the PHLS agreed to treat sympathetically any claims for compensation and also agreed, in those instances, to make a case to the DHSS for an ex gratia payment. Porton noted that this arrangement closely follows that laid down by the Association of British Pharmaceutical Industries, wherein a company will pay compensation without regard to the question of legal liability, with the amount to be calculated by reference to level of damages commonly awarded by the Courts for similar injuries at the time the injury occurred.

By March 1987 a form entitled “Compensation for Personal Injury” had been drafted and was reviewed by the EC [89]. The committee decided that the paragraph on no fault compensation went a long way towards meeting the recommendations of the RCP report on “Research on healthy volunteers”. The MC meeting held on the following day [90] accepted that the new form of compensation was generally in accord with DHSS practice and was the nearest to a “no fault” compensation that was likely to be attained. The compensation form (Annex K) was therefore introduced in 1987 for use alongside the consent form and lay statement.
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