NOT FOR PUBLICATION Fourth Draft

JOINT COMMITTEE ON VACCINATION AND IMMUNISATION

Minutes of the meeting held on Friday 22 April 1988

Present:

Sir John Badenoch	-	Chairman
Professor J E Banatvala		
Dr M F H Bush		
Professor P Grob		
Dr P F Grundy		
Professor D Hull		
Dr I Jones		
Dr J K Knowelden		
Professor R J Levinsky		
Professor H P Lambert		
Dr J A McFarlane		
Professor D L Miller		
Dr J Noble		
Professor C Peckham		
Mrs D Roden		
Dr J W G Smith		
Professor R W Smithells		
Dr K M Citron		
Sir Donald Acheson	)	
Mr R L Cunningham	)	
Dr A Fenton Lewis	)	
Dr R G Penn	)	DHSS
Mrs F Leenders	)	
Mr C P Galvin	)	
Dr D M Salisbury	)	
Dr J Barnes	)	Secretariat
Mr L T Wilson	)	
Colonel D C Robson		MOD
Dr A D McIntyre		SHHD
Dr S N Donaldson		DHSS NI
Dr M Corbel vice Dr G C Schild		

1. **Apologies for absence**

Apologies were received from Professor Campbell, Professor Collee, Professor Dixon, Professor Geddes, Dr Reid, and Dr Selkon, together with Dr Galbraith, Dr Walford, Mr Hale and Dr Rotblat.

The Chairman welcomed the new members Professor Peckham, Professor Levinksy, Dr McFarlane and Mrs Roden and said that Professor Grahame Smith, also a new member, could not attend this meeting. He said that the Chief Medical Officer (CMO) would be attending for the item concerning the report on Public Health in England.

2 The Chairman drew members, attention to tabled papers:

Loveday v Renton - a summary of the judgement taken from the Lancet of 9 April 1988 page 83.

An amendment to the section on whooping cough for the Memorandum "Immunisation Against Infectious Disease".

The minutes of the meeting of the MRC Committee on Development of Vaccines and Immunological Products held on 27 November 1986.

An ARVI report on yellow card data - ARVI(88)3.

Summary of the report of the second meeting of the European Advisory Group on EPI contained in WHO Epidemiological Record No.14 of 1 April 1988.

3. **Minutes of the meeting of the JCVI held on 23 October 1987**

The minutes were agreed and signed.

4. **Matters arising**

Item 4, page 4 - use of immunoglobulin with measles vaccine

The Chairman invited Dr Salisbury to report on the present situation. Dr Salisbury said that the Joint Committee had sought means of stopping the use of immunoglobulin with measles vaccine in children with a personal family history of convulsions and replacing it with advice to parents of means of preventing pyrexia. The first proof of the Memorandum on Immunisation Against Infectious Disease suggested that in the case of measles vaccination of children with a history of convulsions, either immunoglobulin or advice regarding pyrexia should be employed; however in the section on measles, mumps and rubella (MMR) vaccine it is stated that immunoglobulin should not be used since it might interfere with the development of immunity against mumps and rubella. At the meeting of Immunisation Co-ordinators held in March 1988, it was considered that this differing advice for measles vaccine and MMR was confusing; they asked that such advice should be as clear and direct as possible. As a consequence the advice on immunoglobulin with measles vaccine had been removed from the revised Memorandum and replaced by a clear direction that the parents of children with a history of convulsions should receive advice on preventing pyrexia.

Item 5, page 4 - Loveday v Renton

The Chairman reminded members that they had asked for a list of documents disclosed. JCVI(88)1 provided such a list, but it should not be made public. Dr Salisbury said that the Department's solicitors had advised that a part of the section on whooping cough in the revised Memorandum was in conflict with the judgement in the above-mentioned case. They had recommended that any statement on the risk of neurological reaction should avoid any estimate of the size of the risk of death or permanent brain damage. Dr Salisbury said that paragraph 3.4.1c of the section on whooping cough in the Memorandum had been modified accordingly and this modification was tabled. Professor Miller observed that the conclusions to be reached from the judgement of the Court and from the assessment of the scientific evidence of risk of neurological reactions and their consequences, were not necessarily the same. The legal judgement was that there is insufficient evidence, on the balance of probabilities, that the vaccine causes permanent damage to allow any claim for damages to succeed. The JCVI was concerned with the implications of scientific assessment of the evidence for vaccine policy purposes. On this basis he was content to quote the figure for attributable risk of serious neurological illness without giving a figure for the risk of permanent damage, which was consistent with the conclusions of the NCES quoted in the Whooping Cough Report 1981. Therefore the tabled revision of paragraph 3.4.1c of

the whooping cough section of the Memorandum was acceptable.

Professor Levinsky suggested that the second and penultimate sentences of the revised paragraph be interchanged. This was agreed.

Item 6, page 5 - MMR and the Child Health Computing Committee (CHCC)

Professor Smithells reported that Dr Salisbury had attended the last CHCC meeting as a member.

Item 7.2, page 8 - revised section on Hepatitis for the Memorandum "Immunisation Against Infectious Disease"

Dr Penn reported the following amendments to Appendix A to the minutes of the last meeting:-

Page 5 - the names of the vaccines had been inserted.

Page 6 - The period of six months as stated for personnel working in high risk units was made clearer.

Page 8 - statements had been revised to read particularly those who are "prostitutes or male homosexuals".

Para 6 "abusers" changed to "misusers".

The dosage schedule had been inserted in the text rather than a separate table.

With regard to the intradermal method of administration a statement had been inserted to say that manufacturers had

not yet applied for a variation to their product licence to allow for this method of administration and the use of this route would be on the doctors own personal responsibility.

Item 9, page 8 - AIDS and immunisation

Appendix B to the minutes of the last meeting.

Letter by Oronato et al (1988) Lancet, vol.i, pages 354-355

JCVI(88)2

Dr Salisbury said that Appendix B reflected the situation as it was at the time of the last meeting of the JCVI. In the pre-publication copy of the Memorandum some textual changes had been made; these were principally concerned with the recommendations for the administration of inactivated poliovaccine (IPV) to symptomatic HIV antibody positive individuals. Professor Lambert reminded members that the American advice recommended IPV for both symptomatic and asymptomatic individuals. Professor Peckham recommended that clear advice should be given on the use of IPV to known HIV antibody positive individuals. Members observed that the use of MMR was not affected by the current advice given in the Memorandum concerning AIDS and immunisation.

5. **Public Health in England** JCVI(88)3

Report of the Committee of Inquiry into the Future Development of the Public Health Function.

The Chairman welcomed the Chief Medical Officer (CMO) to the meeting.

The CMO said that paper JCVI(88)3 outlined the main aspects of the Report. He said that the Inquiry was set up in 1986 following difficulties experienced in recent important outbreaks of communicable disease. It was a review of the community medicine and public health function in the widest sense and had highlighted the confusion over roles in this field. The Report was published in January 1988 when Ministers had promised a statement on the Government's response as soon as practicable. It had been decided not to put the document out for consultation. CMO said response to the report so far had been largely favourable.

He pointed out that in the course of the Inquiry a special Sub-Committee concerned with communicable disease had been set up under the Chairmanship of Professor Geddes and had included Dr J W G Smith as a member and the key recommendations of this Sub-Committee were contained in chapter 7 of the Report. The principal recommendations on communicable disease were that:-

the office of MOEH be abolished and be replaced by a District Control of Infection Officer (DCIO) who was to be a named medical practitioner. Not all Districts would require a full-time DCIO.

The Report acknowledged the vital role of the PHLS and recommended that more resources be applied to CDSC.

Specialist support services for epidemiology and communicable disease should be available at Regional level to assist Districts.

The Report recommended that the system of notification of disease should be overhauled and that the Public Health Act be reviewed, including the recommendation that notifications should in future be sent to the health authority.

CMO should have reserve powers so that CDSC could be authorised to assist in the immediate investigation of an outbreak.

The Chairman asked members to make further comments on the Report "Public Health in England" or, if they wished, send in written submissions.

In the ensuing discussion members considered that a critical aspect of the development of public health expertise would be effective training, and DCIO's in particular, in such subjects as microbiology, epidemiology and communication skills including understanding the response of a population to an outbreak of communicable disease; it would be necessary to overcome the lines of demarcation between different specialties. Members hoped that an appropriate training programme would be set up for DCIOs, with suitable training in the junior grades.

Members commended the suggestion that CMO should be given reserve powers to direct CDSC to the control of an outbreak. Some wondered if local authorities might not be concerned that the control of infectious disease might be removed from their control. CMO pointed out that Environmental Health Officers had so far been supportive of the main recommendations of the Report. Also table 3 of the Report showed that infectious disease control comprised only 2.83% of the time of environmental health officers compared with 14.2% for food hygiene.

Members expressed concern with the perception that the DCIO might not be a full-time job, however the appointment could be combined with another job within the hospital or that of Immunisation Co-ordinator. The need for back up resources at Region and CDSC was emphasised and it was noted that a training module already existed at CDSC.

Dr Grundy enquired if the recommendations would apply to the Welsh Office; CMO replied that there had already been a positive response from Wales. The Chairman noted that the Joint Committee had endorsed the suggestion that the CMO should have reserve powers. He said it was important that the DCIO should have a link with both academic and NHS Departments in infectious disease and thought Immunisation Co-ordinators could be the same persons as DCIOs.
The Chairman thanked CMO for coming to the meeting.

6. **Measles, Mumps and Rubella (MMR) Vaccine**

6.1 Minutes of the meeting of the Working Party held on 8 October 1987.

6.2 Unconfirmed minutes of the meeting of the Working Party held 11 February 1988.

Dr Salisbury, referring to the meetings of the Working Party held in October 1987 and February 1988, said that certain additional items had been discussed. These were the starting date for the MMR programme which is to be the 1 October 1988 and funding; £1.4 million had been allocated for the period October 1988 to April 1989 and this was to be divided amongst Regions according to birth cohort. He was hopeful that similar funding would be provided for future years. Resources for a publicity campaign in 1988 had been made available. Other groups were assisting the MMR programme and these included the National Rubella Council and the BPA who had accepted a poster exhibition at their recent Annual Meeting. Articles on MMR had been prepared for journals. Dr Jones reported that there was 91% uptake of MMR amongst children aged 1 - 2 years and 75% uptake amongst school entrants in Fife. Dr Salisbury said that Somerset could match these figures.

Dr Bush observed that there might be lack of momentum in the present measles vaccination programme before the introduction of MMR and Dr Salisbury said that regrettably this had already happened.

It was suggested that the MMR Sub-Group should incorporate the Measles and Rubella Sub-Committee. Dr Noble asked that MMR vaccination be included among the Statement of Fees and Allowances payable to general practitioners. Mr Wilson said this matter was under discussion. Dr Bush asked if there was an upper age limit for MMR vaccination. Dr Salisbury replied that paragraph 10.1.7 of the revised Memorandum stated there was no upper age limit.

7. **BCG**

7.1 Minutes of the meeting of the BCG Vaccination Sub-Committee held 8 July 1987.

7.2 Unconfirmed minutes of the meeting of the BCG Vaccination Sub-Committee held on 7 February 1988.

Dr Citron said that it was necessary to have more frequent meetings of the Sub-Committee because of changes in BCG policy. Recent meetings had considered the risk of hepatitis B and AIDS transmission by the Heaf gun; this could be overcome by immersion of the head of the gun in 95% methylated spirit and subsequent flaming. Advice on this modified technique had been issued to the health service. The Sub-Committee had also considered the identification of high risk groups and the need to change the emphasis of the use of BCG since only 20% of immigrants were notified to the MOEH; it was agreed that District Immunisation Co-

ordinators had an important role in this aspect of BCG policy. The Sub-Committee had concluded that the multiple puncture method of administration of BCG was not reliable.

The February 1988 meeting had studied a paper on keloid formation following BCG vaccination. It was considered that the estimate of cases of keloid might be mistaken and the Sub-Committee had started a prospective study in conjunction with MOD. It was agreed that the point of the shoulder should be avoided as a vaccination site. The Sub-Committee also advised that Heaf guns with magnetic heads were unreliable first, because they might cause false negatives and second, because the sterilisation of such heads was unreliable. Further research by manufacturers using a completely disposable plastic head was in progress. Further small changes in the tuberculosis section of the Memorandum had been discussed.

Professor Lambert asked if on page 70, "hyper" should be deleted from hypersensitivity. After discussion it was decided to leave "hyper" as it was.

8. <u>Influenza</u>

Unconfirmed minutes of the Advisory Group on the Antigenic Composition of Influenza Vaccine held on the 23 March 1988

Dr Smith said that the Advisory Group had considered data

showing that this country had experienced the ninth successive winter with a low incidence of influenza. Antibody surveys had revealed low levels of antibody to current strains of influenza A H1N1 virus although there appeared to be better levels to H3N2 strains and to influenza B strains. Vaccination, using the current vaccine, gave a good antibody response to current influenza B and influenza A H1N1 virus strains, but in the United States the antibody response to the current H3N2 viruses had been poor.

The Advisory Group had decided to follow the WHO recommendations concerning the constitution of vaccines to be used for next winter, ie: the H1N1 component was unchanged but the H3N2 and the B components would be changed to include viruses similar to strains at present circulating.

With regard to supplies, Dr Smith said that the Commercially supported Influenza Monitoring and Information Bureau (IMIB) had stimulated sales of vaccine last autumn but this had not been supported by supplies. The IMIB had suggested that more might be done to promote influenza vaccination and that doctors be advised as to which time of year is best to administer the vaccine. The Advisory Group however had decided not to change the existing advice or to make

specific recommendations regarding the time of vaccination. The DHSS is liaising with manufacturers in order to maintain a small reserve of vaccine for patients who may be at risk from influenza.

Dr Smith said that the Advisory Group had studied two papers dealing with the response to a pandemic of influenza, one paper prepared by the PHLS and the other by the National Advisory Committee of Immunization of Canada. It had been concluded that it would be helpful for the Joint Committee and the DHSS to have a plan prepared in the event of an influenza pandemic, therefore it was suggested that a small group, including representation from NIBSC, PHLS, and individuals engaged on vaccination research be set up to prepare a draft report, in the first place for consideration by the Advisory Group. This was agreed by the Joint Committee.

9. **Uptake of Immunisation**

9.1 Report of the meeting of Nominated Officers held on the 15 March 1988.

Dr Salisbury said that this meeting had considered practical issues concerning the introduction of MMR and had received results of the MMR trials in the three trial districts. The meeting had heard a presentation by the Health Education Authority and had received a copy of the pre-publication edition of the Memorandum "Immunisation Against Infectious

Disease", and a pack of 10 slides on MMR with speaking notes, together with a question and answer paper to assist in answering the queries on this subject. The co-ordinators were also shown the new form on data collection for immunisations. Dr Salisbury said that the group had now met three times and were by now more vocal and dynamic.

A meeting of Regional representatives was held two weeks later. This meeting showed that Regions had differences in the nature of their requests and of priorities with regard to immunisation.

Professor Hull observed that information was now needed for nurse trainers. He also wondered if there was to be a similar programme of meetings for health visitors. Mrs Roden said that the teaching material had been discussed with the nurse trainers. Dr Bush said that the effectiveness of dissemination of information on MMR depends upon the cascade effect of training.

9.2 Immunisation uptake figures for Scotland JCVI(88)4
Dr McIntyre said that these figures had been considered by a meeting of community medicine specialists in Scotland who were very much in favour of publishing league tables such as these.

10. **WHO Expanded Programme on Immunization (EPI)**

Report of the second meeting of the European Advisory Group on the Expanded Programme on Immunization (EPI) JCVI(88)5

(A precis of this report is contained in Weekly Epidemiological Record No.14, vol.63, pages 93-101.)

EPI - paper on guiding principles for programme management - A paper by Mr K Barnard and Dr D Salisbury JCVI(88)6

The Chairman told members that Dr Salisbury had been invited to become a member of the Global Advisory Group of EPI. Dr Salisbury said that the papers reflected the views of the European Advisory Group and that he had prepared that portion of the report concerning rubella and the strategy in the United Kingdom. The paper on the organisational aspects of immunisation had attracted the attention of WHO especially with regard to the managerial approach for the provision of immunisation. He said he was attending a meeting next week of Programme Managers.

Professor Smithells enquired whether the programme was aware of the EUROCAT study of abnormal twins linked with the WHO Congenital Rubella Surveillance Programme; Dr Salisbury said that there was cooperation between the two programmes. Professor Smithells suggested that there should be an internationally accepted definition for the congenital rubella syndrome.

11. **ARVI**

11.1 Minutes of the meeting held on the 2 October 1987.

11.2 Unconfirmed minutes of the meeting held on the 8 March 1988.

Dr Salisbury said that ARVI meetings would now take place twice a year and would precede the meeting of the Joint Committee. ARVI had considered the difficulties in preparing information in a suitable form for presentation to the Committee. He referred to tabled paper ARVI(87)3 which provided reports on the yellow card data and also gave rates for adverse reactions.

At the most recent meeting there was much discussion of a paper by Dr Cameron Bowie on the surveillance of adverse reactions to immunisations - JCVI(88)7 - and he asked the Joint Committee for their support of ARVI in this attempt to rationalise the presentation of data. Dr Smith said he was pleased to see a denominator associated with individual reactions. He suggested that Dr Bowie's paper should be studied by a small Working Party including representatives from CDSC. The Chairman replied that ARVI had set up such a Working Party. Professor Smithells said that the Working Party should involve the BPA surveillance for rare diseases. Dr Salisbury replied that the Group would include Dr Susan

Hall who was now administering the BPA surveillance scheme.

Professor Miller said that he had reservations about the methods to be used and whether or not the data to be collected could be interpreted in a satisfactory epidemiological manner. The Chairman suggested that the Working Party should also include epidemiological advice.

12. **Whooping Cough**

12.1 Whooping Cough - a note by the Department.

Dr Barnes reported that in 1987 just over 15,000 cases of whooping cough had been notified in England and Wales compared with just over 19,000 for the equivalent year in 1983. Nineteen-eighty-eight was an interepidemic year, the weekly level of notifications was now just over 100 and it was likely that not more than 5,000 cases would be notified this year.

12.2 Recent serological studies of pertussis - A paper by Dr Mark Thomas and Professor H P Lambert. JCVI(88)10

Professor Lambert said that in studying Bordetella pertussis one still was not sure which components of the organism caused disease and which components are protective.

The first study included 114 patients with pertussis and 49 contacts. A sharp rise in antibody to all three antigens tested was noted in the cases with a lesser rise in contacts

which did not include IgM. This, together with the high initial antibody level found in contacts, suggested that sub-clinical boosting of immunity to whooping cough took place within the community; no particular antibody was identified as being associated with immunity in contacts. Differences in the levels of IgA to pertussis toxin were noted among vaccinees compared with patients with pertussis.

The second study demonstrated the whole antibody profile using immunoblotting. This technique showed that whole-cell vaccine produced a response to all components whereas in acellular vaccines the antibody response was only to components contained within the vaccine; taken in conjunction with the Swedish trial result, this suggested that one or two component vaccines might not be as effective as whole-cell pertussis vaccine.

Dr Smith enquired whether it is possible to obtain antibody results from nasal swabs. Professor Lambert replied that a large study on nasal IgA was now in progress.

12.3 Duration of effectiveness of pertussis vaccine. Evidence of a 10 year study. Jenkinson 1988, British Medical Journal, vol.296, pages 612-614. JCVI(88)11

The Chairman said that this study suggested that the effectiveness of whooping cough vaccination fell from 100%

in the first year to 46% in the seventh year. The Chairman suggested that such low levels of effectiveness might prevent the disease but not prevent an infectious carrier state of Bordetella pertussis. He said that the paper indicated that a booster dose of pertussis vaccine should be given before entry to school. Dr Smith suggested that this situation should be kept in view. This was agreed.

12.4 Study of intellectual performance of children in ordinary schools after serious complications of whooping cough. RCGP 1987. British Medical Journal, vol.295, pages 1044-1047. JCVI(88)12

Members observed that such a study involved many confounding variables, including the fact that children who develop pertussis may be at risk for other reasons.

13. **Memorandum "Immunisation Against Infectious Disease"**

Mr Wilson said that members had received a pre-publication copy of this Memorandum which it was now intended to issue with a Health Circular which would pull together other important points on immunisation. Professor Smithells emphasised that a copy should go to every doctor.

14. **The MRC Committee on Development of Vaccines and Immunological Products (CDVIP)**

Unconfirmed minutes of the twenty-sixth meeting held on 1 December 1987.

Dr Smith spoke to these minutes.

Herpes Vaccines - live varicella vaccine

Dr Smith said that a number of paediatric oncologists regard such a vaccine as important for protecting patients before they commence treatment. Professor Levinsky said that use of the [SKF] varicella vaccine was discontinued when it was found that the response in adults was poor and that later the vaccination had failed to protect against attacks of varicella. Application had been made to Merck Sharp and Dohme for supplies of their vaccine but these manufacturers did not wish to engage in trials in this country.

Killed herpes simplex virus vaccine was now ready for clinical trials.

An Epstein-Barr virus vaccine was under consideration for Phase I clinical trials in volunteers.

Haemophilus influenza B (HIB) conjugate vaccines now protect younger children from the age of six months onwards.

Dr Smith said that the Committee should think of the potential of these vaccines in the UK. Dr Salisbury said that the Sub-Committee on Polysaccharide Vaccines may be able to advise the JCVI on the use of HIB vaccine and pneumococcal vaccine. Professor Hull wondered if there was an accurate measure of the incidence of HIB epiglottitis and the Chairman asked Professor Lambert if he would be willing to produce a

paper on this aspect.

A vaccine against Neisseria meningitidis, group B was not yet available and a meeting was to be held at Oxford in the very near future to look for possible research approaches.

With regard to respiratory syncytial virus, Dr Smith said that human immunoglobulin had been seen to have a therapeutic effect in patients with RSV infection.

3. **Pertussis Vaccines**

Dr Smith said that phase 2 studies were now in progress and a decision must therefore be taken with regard to phase 3 trials, the cost of which could be of the order of £3 million. The appropriateness of phase 3 trials must be seen against the background possibility that an acellular vaccine could be licenced before trials were complete, and that there may not be enough whooping cough to produce satisfactory results. Dr Smith said that the views of the JCVI on the need for phase III trials would be helpful. The Committee agreed that a phase III trial should go ahead if scientifically feasible.

15. **Retention of Immunisation Records - Correspondence from Professor Smithells to Dr Sutherland and Professor Peckham submitted by Professor D L Miller** JCVI(88)14

Members agreed about the increasing importance for retaining vaccination records, not only because it is important to

have a clear record of such vaccinations as rubella, tuberculosis and tetanus, but also as a result of product liability. It was agreed that there were practical difficulties surrounding the retention of records, together with the fact that immunisations were carried out either by GPs or by health authorities. Nevertheless the Chairman suggested that it would be appropriate for the Joint Committee to recommend that vaccination records should be retained for life.

16. **Diphtheria outbreaks in immunised populations**

16.1 **Diphtheria outbreaks in immunised populations - Editorial from the New England Journal of Medicine 1988, vol.318, pages 41-43**

16.2 **Molecular epidemiology of the 1984-86 outbreak of diphtheria in Sweden. Rappuoli et al 1988 New England Journal of Medicine, vol.318, pages 12 - 14.** JCVI(88)15

Dr Barnes said that these papers demonstrated that diphtheria could occur in well-immunised populations in Scandinavia. There was some indication that toxigenic properties of Corynebacterium diphtheriae could be transferred from imported strains to circulating non-toxic strains of C.diphtheriae by exchange of genetic material. Although there was no evidence of recent large outbreaks of

diphtheria in this country it was suspected that a high proportion of the adult population might be susceptible to infection. This raised the need for boosting doses of adult (low dose) diphtheria vaccine to be given to adults. Dr Smith suggested that this situation be kept in view and that serological surveys for immunity to diphtheria should be carried out using the PHLS and National Blood Transfusion Service. This suggestion was agreed.

17. Japanese B encephalitis vaccine

17.1 Should travellers to Asia be vaccinated against Japanese B encephalitis? Denning D W and Kaneko Y, 1987. Lancet, vol 1, pages 853-854

17.2 Vaccinating against Japanese encephalitis - Steffen R, 1987, Lancet, vol.2, page 511 JCVI(88)16

The Chairman said that these papers gave the epidemiology of Japanese encephalitis together with evidence of an effective vaccine for preventing this disease and recommendations with regard to the use of the vaccine. There was increasing use of this unlicensed product in this country for travellers to South East Asia and it was suggested that the manufacturers be approached with a view to submitting proposals for a product licence for the vaccine in this country. This was agreed.

18. **Any other business**

There was none.

19. **Date of the next meeting**

The next meeting is on Thursday 20 October 1988.