

JOINT COMMITTEE ON VACCINATION AND IMMUNISATION

DRAFT MINUTES OF THE MEETING held on Wednesday 15 October 2008

**Skipton House, 80 London Road,
London, SE1 8UG**

Members

Professor Andrew Hall (Chair)	Dr Gabrielle Laing
Dr Syed Ahmed	Mrs Pauline MacDonald
Dr Ray Borrow	Ms Anne McGowan
Professor Alan Emond	Mrs Vivienne Parry
Professor Jonathan Friedland	Dr Andrew Riordan
Dr Anthony Harnden	Dr Richard Roberts
Dr Jennifer Harries	Professor Claire-Anne Siegrist
Dr Paul Jackson	Dr Christopher Verity

Ex-Officio

Dr Claire Cameron - HPS Scotland	Dr Stephen Inglis - NIBSC
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Observers

Dr Eibhlin Connolly - Eire	Lt Cdr Katy Geary - MoD
Wg Cdr Andy Green - MoD	Dr Darina O'Flannagan - Eire

Invited to attend

Dr Nick Andrews - HPA	Dr Mary Ramsay - HPA
Mrs Joanne White - HPA	

Scottish Executive

Dr Andrew Riley

Welsh Assembly Government

Mrs Jenny Thorne

Northern Ireland

Dr Lorraine Doherty

Department of Health

Professor David Salisbury (Medical Secretary)	Dr Karen Noakes
Dr Dorian Kennedy (Admin Secretary)	Dr Kevin Perrett
Mr Geoff Dent (minutes)	Dr Stephen Robinson
Mrs Philippa Kemsley	Mrs Ray Smith

MHRA

Dr Philip Bryan

1. ANNOUNCEMENTS AND WELCOME

The Chairman welcomed all those present to the meeting, and in particular welcomed the following new members of JCVI: Dr Jennifer Harries, Professor Claire-Ann Siegrist, Dr Andrew Riordan and Dr Gabrielle Laing.

Apologies had been received from the following Observers: Professor Elizabeth Miller (HPA), Dr Jane Woolley (MHRA), Dr Arlene King (Health Canada), Dr Paul Colville-Nash (MRC), and Dr Linda Diggle (Jersey).

The Chairman also welcomed Wg Cdr Katy Geary who had accompanied Wg Cdr Andy Green as an observer from the MOD. Wg Cdr Katy Geary is a Public Health physician and has responsibility for development of immunisation policy within the Armed Forces.

The Chairman reminded members of the need to ensure their declarations of interest were up to date, and to declare their interests relevant to each agenda item on the forms provided. All expense claims should be claimed within one month of the meeting taking place.

The following additional papers were tabled:

- JCVI advice on HPV vaccines - previous incomplete vaccination with Gardasil (to be considered under agenda item 5);
- Confirmed measles cases in England and Wales – an update to August 2008 (to be considered under item 6);
- Impact of Wales Policy on MMR (also to be considered at item 6); and
- Population impact and vaccine effectiveness of the pneumococcal conjugate vaccine in England and Wales during the first 21 months (to be discussed under any other business).

2. MINUTES OF THE LAST MEETING HELD ON 17 JUNE 2008

The following changes to the draft minutes were agreed:

- Dr Christopher Verity attended the meeting: the minutes should reflect this.
- Dr Verity's declaration of interest in relation to agenda item 6 should be deleted.

- The third paragraph of agenda item 7 should be amended to read ‘Given the recent paper on the loss of serum antibody following MenC vaccination, the Committee discussed whether this could also occur for the Hib vaccine’.
- The final paragraph of agenda item 7 should be amended to read:

"It was agreed that the Committee would reconsider this issue, to include the modelling of the impact of change in Hib incidence alongside the hepatitis B model, when new information becomes available"

- Dr Cameron's declaration of interest in relation to agenda item 8 should be deleted.
- The final sentence of Any Other Business should be amended to read:

"There is no screening that can be done to identify mitochondrial disorders and UK data provide no evidence that vaccination is harmful to children with mitochondrial disorders."

- The declaration of interest entries recorded against agenda items should be checked for accuracy and consistency and changes made, as appropriate.

The secretariat was asked to make the above changes and remove the draft status heading from the minutes as they were now final. These would be updated on the JCVI website.

3. MATTERS ARISING

The Chairman reported that the advice from JCVI on rotavirus vaccines had been submitted to Ministers, who had noted JCVI's recommendation not to introduce rotavirus vaccination at the current vaccine price. The secretariat is preparing a statement on rotavirus vaccines (similar in style to the HPV statement) and it will circulate a draft for members comment in due course.

4. JCVI TERMS OF REFERENCE

The Committee was updated on plans to amend the ToR to better reflect the greater consideration given to economic factors in the work of JCVI. The proposed changes to the ToR are currently being considered, but it is likely that they will refer to a consideration of cost-effectiveness as used by NICE or equivalent bodies.

In discussion the following points were made:

- A consistent approach to assessing cost-effectiveness was needed across Government, and the reference to adopting the same approach as NICE should be a step to achieving this.
- Some members were concerned that cost-effectiveness models for new vaccines were different to those applied to other medical interventions. The example of pre-pandemic vaccines was cited.
- The committee would need to recruit an economist to assist its deliberations.

DH representatives undertook to keep JCVI members informed of developments relating to the Committee's ToR, and to advise JCVI of the revision to the ToR, once they had been agreed.

5. HPV

Members were updated on the progress on the HPV vaccination programme in England. After a competitive tendering process, Cervarix® had been chosen as the vaccine for the HPV programme. Overall, the programme had been positively received and there had been no fundamental problems in rolling out the programme or supplying vaccine. DH informed the committee that the programme is being closely monitored, including vaccine uptake and wastage; this data is being collected via the Health Protection Informatics (HPI) website. Due to the advantageous price of HPV vaccine achieved, DH has extended the catch-up campaign to 17 to 18 year olds in England this year, including additional funding to support the programme.

The Committee were updated on the advertising in press, radio, television and on line, and provided with information packs that have been sent to all girls and their parents.

Representatives from Scotland, Wales and Northern Ireland also provided updates on the implementation of the HPV programme in their countries. Scotland had already planned to vaccinate an additional cohort of girls aged 17 to 18 years and signs were that their programme was going well. Each country had developed slightly different communication materials to England to better target their different populations.

Members and observers from England, Scotland, Wales and Northern Ireland commented that initial indications on first dose uptake were encouraging with anecdotal reports of high uptake rates. Members from England commented that the addition of an extra cohort this year had been operationally difficult due to the short notice of the announcement. There were also some difficulties in reaching girls aged 17 to 18 years who had left the school system.

The Medicines and Healthcare products Regulatory Agency (MHRA) updated the committee on the reporting of suspected adverse reactions relating to both the Cervarix vaccine and for HPV vaccine where the brand was not reported. Some 100 suspected adverse reactions have been reported of which around 70 per cent were psychogenic in nature (i.e. associated with the vaccination process rather than the vaccine itself). This level of reported suspected adverse reactions was within expected levels. The MHRA is publishing suspected adverse reactions each week on its website: www.mhra.gov.uk/hpvvaccine.

Members confirmed that they were content with the guidance that had been issued relating to girls / young women with latex allergies.

The committee considered draft guidance to address the situation where a course of vaccination with Gardasil had commenced, but not been completed. Members made several detailed drafting suggestions and it was agreed that a final version would be approved by correspondence. This advice would be updated in the web version of 'Immunisation Against Infectious Diseases' (the 'Green Book').

The Chairman commended the Department for the successful introduction of the HPV Immunisation Programme.

6. MEASLES

Members were updated on the progress of the MMR catch-up programme which had been launched by the Department in August 2008. The programme had been developed to deal with the risk of a measles epidemic resulting from low MMR uptake in some areas, particularly London and South-East England.

The letter from the Chief Medical Officer dated 6 August gave advice to PCTs on the actions required to increase MMR uptake. Priority is being given to identify and vaccinate those children and adolescents who have not received any MMR vaccine. The second priority group is those who have only been partially vaccinated. The Department has worked with GP IT system suppliers to facilitate the identification of patients with incomplete MMR vaccination histories. DH has also secured additional stocks of MMR vaccine and provided PCTs with funding to manage the catch-up programme. New leaflets and posters have been produced for use in the programme.

DH will monitor uptake rates using anonymised aggregated data from about half the GP practices in England. This information will be available monthly and will be broken down into the age ranges of the priority groups, and by PCT area. Vaccine supply will also be closely monitored.

The HPA tabled a paper setting out the most recent information on the numbers of confirmed measles cases in England and Wales. This showed that there were 80 confirmed cases of measles in August, the first monthly decline since February. This decrease was anticipated as it coincided with school holidays. Provisional data for September indicated that there had been an increase in cases outside London. HPA reported that a recently published study [Choi YH, Gay N, Fraser G, Ramsey M, The potential for measles transmission in England] predicting the number of children susceptible to measles in the population suggests that the possibility of a measles epidemic is still very real.

A separate paper was tabled covering the position in Wales. This considered the impact of an MMR catch-up campaign that took place in 2005 which was particularly successful in containing outbreaks of mumps, as well as having beneficial effects in reducing cases of measles. 61,000 children were immunised as part of this programme.

In discussion the following points were made:

- Low vaccine uptake rates in London were not restricted to MMR;
- Strategic Health Authorities (SHAs) are fully engaged in the performance management of PCT immunisation activities, including the MMR Catch-Up Programme;
- There may be an element of under-reporting of vaccination rates in some areas due to poor record keeping.
- Vaccination rates among traveller communities remain low, and attempts to engage with community leaders on this issue have only been partially successful.
- In London, it was estimated that it may be 6-12 months before new child health systems are introduced. These should provide better quality data on children's vaccination status than currently exists.
- It will be necessary to compare DH's MMR uptake data derived from GP systems with COVER data to check for consistency.

The Committee welcomed the action that was being taken and asked to be advised of progress at future meetings.

7. INFLUENZA

The Chairman updated the Committee on plans to hold a flu subgroup on 10th December. Information on members and the proposed areas of work were included for information. The Chairman asked that JCVI members wishing to join this subgroup should contact the secretariat.

Members were also advised of the proposed plan of work on pandemic influenza vaccines by the Pandemic Influenza Vaccine Evaluation Consortium (PIVEC). The consortium consists of the Health Protection Agency (HPA), the National Institute of Biological Standards and Control (NIBSC), the Veterinary Laboratory Agency (VLA) and the Institute of Child Health (ICH) who will collaborate with other UK research groups working on pandemic influenza vaccines.

8. RESPIRATORY SYNCYTIAL VIRUS (RSV)

The Chairman reported that the West Midlands Health Technology Assessment (HTA) Collaboration at the University of Birmingham has recently completed a systematic review and economic evaluation of the use of palivizumab in children for the NHS research and development HTA Programme. This assessment is due to be published by the end of 2008. A summary note of its findings had been prepared by the secretariat.

The Chairman proposed establishing a JCVI RSV sub-group to consider the HTA, and asked for volunteers. He estimated that the sub-group would need to meet once or twice in 2009. Members were asked to express an interest in serving on the sub-group. The Chairman also proposed writing to the Royal College of Paediatrics and Child Health to invite them to nominate a representative with an expertise in respiratory infectious diseases.

The Chairman asked the secretariat to set up a meeting of the sub-group. Its recommendations will be reported back to JCVI in due course.

9. Q-FEVER

The Advisory Committee on Dangerous Pathogens (ACDP) asked JCVI to consider the suitability of Q fever vaccination in terms of safety and quality for use in any occupational control measure in high-risk occupational groups. JCVI was also asked to consider the licensing hurdles (if any) that exist to the availability of Q-vax (or any other Q fever vaccine) for occupational immunisation against Q fever in the UK.

The papers from the ACDP were discussed at the Feb 2008 JCVI meeting and the secretariat was asked to prepare a paper outlining several issues that the committee asked to be addressed, including:

- how long vaccine protection lasts for;
- whether alternative acellular Q fever vaccines are available;
- how the Q fever vaccination programme is delivered in Australia; and
- operational issues in delivering the vaccination programme.

The committee was informed that three types of vaccine have been proposed for providing human protection against Q fever:

- the attenuated live vaccine (produced and trialled in Russia but subsequently abandoned because of concern about its safety);
- whole-cell vaccines such as:
 - chloroform-methanol extracted cell-residue (CMR);
 - trichloroacetic acid extracted (TCA); and
 - the whole-cell formalin-inactivated vaccine, which is considered safe for humans (Q-vax).

Q-vax manufactured by CSL in Australia is the only available vaccine that has been tested in humans and has demonstrated efficacy. The evidence suggests efficacy is high and there are good data to show that protection from the vaccine lasts at least five years. Vaccine efficacy ten years post vaccination has not been assessed in a robust manner but anecdotal evidence is available from Australia to suggest it may last this long. Q-vax is not licensed in the UK but unlicensed vaccine could be imported for use if there is a clear public health need. Operationally, the vaccine requires pre-vaccination testing including antibody serum and skin tests.

The committee noted that data provided to the secretariat on the prevalence of Q fever suggest that there are 0.12 to 0.30 cases per 100,000 population in England and Wales and 0.63 to 4.69 per 100,000 population in Northern Ireland.

The committee agreed that data suggested Q-vax would provide protection for five years, however it was not able to comment on the duration past that time. One member noted that since this is a whole-cell vaccine, duration of protection may be expected to last up to 20 years. It was also noted that individuals could not be revaccinated.

Issues were raised about the quality of the data on disease burden. Q-fever surveillance takes place in outbreaks but is not carried out routinely.

Other related issues include detecting all cases of Q fever since many infections are asymptomatic, and the suitability of using serological evidence as a measure of disease burden. For example, positive serology in the population is significantly higher than the clinical disease.

The committee agreed that the chair would write to the ACDP to state the committee's view that the vaccine would not be of benefit in an outbreak situation and that more detail was needed on the burden of the disease in occupational at risk groups.

The committee asked the secretariat to provide more information on the numbers of individuals who work in at-risk occupations and also to summarise the data on the safety of Q-vax.

The committee will consider this issue one more time before providing a recommendation to ACDP on Q fever vaccination.

10. MENINGOCOCCAL C CONJUGATE VACCINES

The committee was presented with a short paper highlighting the issues around the longevity of meningococcal C (MenC) conjugate vaccine protection. This was brought to the committee's attention due to a recent publication by Snape and colleagues who showed the loss of serum antibody following MenC vaccination. It was noted that children who are vaccinated in the second decade of life raise higher titres and, therefore, when these individuals are assessed later on, the titres remain higher.

Since the introduction of MenC vaccination in 1999, MenC cases decreased rapidly and there were no MenC cases in vaccinated individuals in the last year. The committee noted that enhanced surveillance carried out by the Health Protection Agency demonstrates that there is very little disease suggesting that herd immunity remains high. It was also noted that some of the first cohort to be vaccinated (aged in their high teens) at the start of the programme are now becoming parents themselves – since these individuals raised high titres to MenC it is likely that the transmission from adult to baby is less likely to occur.

The committee was reassured by the very low levels of Meningococcal C disease that is maintained by the current programme. The current surveillance carried out by the HPA is sensitive and is likely to pick up any increase in disease if it arises. JCVI will continue to monitor this issue closely.

11. MENINGITIS B VACCINE

The committee was given an update on the development of meningococcal B vaccines. The initial data from clinical trials looks promising and there are two vaccines under development. The committee will continue to examine the data as it becomes available, and prepare to collect data that will inform the cost-effective modelling for any decisions taken.

12. VACCINE COVERAGE

England

The committee was presented with a report on vaccine coverage in England for the reporting period January to March 2008. Children who reached their first birthday in the quarter (born January to March 2007) were the third quarterly birth cohort recorded by COVER to have been scheduled to receive their primary vaccinations in accordance with the new schedule introduced on 4th September 2006. In England, coverage at 12 months for all the vaccines remained similar to the previous quarter; 91% of children had received their primary course of DTaP/IPV/Hib, and 90% had received primary courses of MenC and PCV vaccines, showing that PCV vaccine is as well accepted as the other vaccines offered in the first year of life.

Children reaching their second birthday in the quarter (born January to March 2006) were the second quarterly birth cohort recorded by COVER to be offered at 12 months and 13 months respectively the new booster vaccines, Hib/MenC and PCV, which were also introduced September 2006. Coverage at 24 months in England was 78% and 74% respectively for these two vaccines, similar to the previous quarter. Coverage for MMR at 24 months decreased slightly for the fourth successive quarter down to 83%. However, data from the sentinel surveillance of MMR published in September shows that data for MMR uptake at 16 months of age has increased, suggesting that routine 24 month coverage may increase early next year.

Coverage at 5 years was 77% for the pre-school booster, 87% for MMR1 and 74% for MMR2.

Neonatal hepatitis B coverage was 70% for three doses at 12 months and 49% for four doses at 24 months.

Scotland

Scotland reported that one key aspect of their uptake was that 94.9% of individuals have received one dose of MMR. There had been a slight decrease in pre-school vaccinations. The pre-school booster had been brought forward – creating a pressure on the service. Therefore, there was a lag in vaccination in older children as young children were being prioritised.

Wales

Uptake rates were broadly in line with the other countries. The main current concern was about the disappointing MMR uptake rates for those children aged two. This was being monitored.

Northern Ireland

Similar concerns to Scotland were expressed about pressures on the system with some queuing at immunisation clinics reported. Enhanced surveillance has been reintroduced and there have been a number of problems with their child health IT systems.

13. ARTICLES FOR INFORMATION

The following articles were presented to the committee for information

- Morens Predominant role of bacterial pneumonia as a cause of death in pandemic influenza: implications for pandemic influenza preparedness.
- Vynnycky E, Pitman R, Siddiqui R et al. (2008) Estimating the impact of childhood influenza vaccination programmes in England and Wales. *Vaccine* 26(41): 5328-37.
- Zaman K, Roy E, Arifeen SE et al. (2008) Effectiveness of Maternal Influenza Immunization in Mothers and Infants. *N Engl J Med*.

The Chairman noted that the first two papers would be considered by the Flu subgroup, which is due to meet on the 10th of December.

- Brotherton JM, Gold MS, Kemp AS et al. (2008) Anaphylaxis following quadrivalent human papillomavirus vaccination. *CMAJ* 179(6): 525-33.
- Halsey NA (2008) The human papillomavirus vaccine and risk of anaphylaxis. *CMAJ* 179(6): 509-10.
- MacDonald N, Stanbrook MB and Hebert PC (2008) Human papillomavirus vaccine risk and reality. *CMAJ* 179(6): 503, 505.

Anaphylaxis rates in Australia have been recorded as 2.6 per 100,000 doses. The cause of the reactions has not been identified.

Passive surveillance via the yellow card system will provide useful information about rates of anaphylaxis for individuals given Cervarix in the UK programme.

- Brotherton JM and Gold MS (2008) Monitoring vaccine safety: a critical component of every immunisation program. Med J Aust 189(5): 243-4.
- BATTERY JP, Madin S, Crawford NW et al. (2008) Mass psychogenic response to human papillomavirus vaccination. Med J Aust 189(5): 261-2.

These papers highlight the potential issues of school-based vaccination programmes and the need for careful planning of vaccination sessions in schools and proper reporting of adverse reactions. The MHRA has issued guidance on reporting faints and panic attacks and the importance of only reporting reactions suspected to be related to the vaccine.

- Hornig M, Briese T, Buie T et al. (2008) Lack of Association between Measles Virus Vaccine and Autism with Enteropathy: A Case-Control Study. PLoS ONE 3(9): e3140.

Another study providing strong evidence that there is not an association of autism and persistent measles virus RNA in the GI tract or MMR exposure. Importantly the study was conducted in three different laboratories using standardised techniques and one of the laboratories involved had previously reported finding measles virus RNA in autistic children and not in controls.

- National Institute of Neurological disorders and stroke (2008) Mitochondrial Encephalopathies: potential relationships to autism?

At the last meeting JCVI made a statement that, on the basis of the available information (about the Hannah Poling case), it did not believe that a link had been established between vaccination, encephalopathy and onset of autism in children with mitochondrial dysfunction. JCVI considered it highly unlikely that vaccination was the cause of autism for children who had pre-existing hereditary conditions such as mitochondrial dysfunction.

This paper concurs with the Committee's statement that, at present, there is no evidence to suggest a link between mitochondrial dysfunction and autistic spectrum disorders.

14. ANY OTHER BUSINESS

Reducing differences in the uptake of immunisations – NICE Guidance

The Chairman advised the committee that he and several other members and observers were invited to comment on the draft NICE Guidance on differences in the uptake of immunisations (including targeted vaccines) in people younger than 19 years.

The Chairman noted that the committee would look at this again when further material is available.

Surveillance of pneumococcal disease

The committee were presented with a paper on the results and analysis of pneumococcal surveillance before and after the introduction of the seven valent pneumococcal vaccine in September 2006. The analysis examined pneumococcal disease by vaccine and non-vaccine serotypes. Since the introduction of the vaccine, there has been a large reduction in pneumococcal disease caused by the vaccine types in vaccinated cohorts. Before the introduction of the PCV programme there was a positive trend towards an increase in pneumococcal disease caused by vaccine types. This needs to be taken into account when calculating any herd immunity benefits from the programme.

Although some reduction has been seen in older unvaccinated cohorts, the analysis found that the herd immunity effect to date is less than that seen in the US. However, there were differences in the implementation and surveillance of their programme.

There has been an increase in the pneumococcal disease caused by non-vaccine types; like the vaccine serotype associated disease, the disease caused by non-vaccine type strains was increasing prior to the introduction of the vaccine and continues to follow this trend. It is therefore too early to indicate whether there is any serotype replacement.

This analysis will be considered by to the pneumococcal subgroup in January 2009.

15. DATES OF FUTURE MEETINGS

Wednesday 18 February 2009 (confirmed)

Wednesday 17 June 2009 (confirmed)

Wednesday 14 October 2009 (provisional)

ANNEX: DECLARATIONS OF INTEREST

Item 5:

Dr Riordan: Personal Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Ms McGowan: Non-Personal Non-Specific (GSK)

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Borrow: Personal Non-Specific (Sanofi Pasteur), Non-Personal Non-Specific (GSK)

Mrs McDonald: Personal Non-Specific (Sanofi Pasteur), Non-Personal Non-Specific (GSK)

Item 6:

Dr Borrow: Non-Personal Non-Specific (GSK)

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Riordan: Personal Non-Specific (GSK)

Item 7:

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Riordan: Non-Personal Non-Specific (Sanofi Pasteur)

Item 10:

Dr Borrow: Personal Non-Specific (Wyeth, Novartis), Non-Personal Non-Specific (Bextel, Baxter Healthcare)

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Riordan: Non-Personal Non-Specific (Wyeth)

Item 11:

Dr Borrow: Personal Specific (Wyeth, Novartis), Non-Personal Non-Specific (GSK) . NB The member remained in attendance for this item as it was a factual presentation. No votes were taken.

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Riordan: Personal Non-Specific (GSK), Non-Personal Non-Specific (Wyeth)

Item 14:

Dr Borrow: Personal Non-Specific (Wyeth), Non-Personal Non-Specific (GSK)

Prof Siegrist: Personal Non-Specific (GSK), Non-Personal Non-Specific (Sanofi Pasteur)

Dr Riordan: Personal Non-Specific (GSK), Non-Personal Non-Specific (Wyeth)