Joint Committee on Vaccination and Immunisation

Minutes of the Meeting held on Wednesday 17 October 2007 at 10.30

Attending:
Professor Andrew Hall (Chair)
Professor Brent Taylor
Professor Paul Griffiths
Ms Anne McGowan
Professor David Goldblatt
Dr Paul Jackson
Professor Jonathan Friedland
Dr Richard Roberts
Professor Simon Kroll
Dr Syed Ahmed
Dr Ray Borrow
Mrs Vivienne Parry
Mrs Pauline MacDonald
Dr Anthony Harnden
Dr Christopher Verity

Ex-Officio
Professor David Hill - NathNac
Dr Steven Inglis - NIBSC
Dr Martin Donaghy - HPS Scotland

Observers
Wg CDR Andy Green - MoD
Sq Leader Tania Thomas - MoD
Hester de Melker - Netherlands
Dr Parameswaram Kishore - Isle of Man

Invited to attend
Professor Elizabeth Miller - HPA
Dr Mary Ramsay - HPA
Dr John Edmunds - HPA
Dr Kate Soldan - HPA
Dr Mark Jit - HPA
Joanne White - HPA

Welsh Assembly Government
Mr Neil Robins

Health Protection Scotland
Dr Elizabeth Stewart

MHRA
Dr Mair Powell
Dr Philip Bryan
Dr Jane Wooley

Department of Health
Professor David Salisbury (Medical Secretary)
Dr Kevin Perrett
Dr Dorian Kennedy (Admin Secretary)
1. ANNOUNCEMENTS AND WELCOME

The Chairman welcomed all those present to the meeting.

Professor Alan Emond, Dr Desmond Walsh, Dr Lorraine Doherty and Dr Claire Cameron had sent their apologies. Dr Martin Donaghy was representing HPS at the meeting.

Members were reminded of the need to ensure their declarations of interest were up-to-date, and to declare their interests relevant to each agenda item.

Members were made aware of a study that was to be published in the next few weeks on MMR and autism. The study found no evidence of persistence of measles vaccine viruses in autistic children or in controls.

Members were made aware that the position of Chair of the Pandemic Influenza Scientific Advisory Group was being advertised on the DH website.

2. MINUTES OF THE LAST MEETING HELD 14 FEBRUARY 2007

Members agreed the following changes:

i) Page 2 in last paragraph, replace last sentence with 'It was noted that the issue would be discussed at a future JCVI meeting'.
ii) Page 6 in paragraph 3, replace the words 'and appears to plateau' with 'with persistent antibody levels'.
iii) Page 7 in the fourth bullet, last sentence, after the word "screening", add the word 'might'.
iv) Page 7 last paragraph in the last sentence, replace with 'but this was related to the procedure rather than the vaccine used (fainting is known to be associated with vaccination in some age groups)'.
v) Page 9, fifth paragraph, second sentence, delete 'future prospects may lie' and replace with 'a chloroform inactivated whole S.aureus vaccine is being developed by'.
v) Page 12, delete last paragraph.

With these amendments, it was agreed that the final minutes would be placed on the website.

3. MATTERS ARISING

3.1 JCVI Varicella subgroup
The first meeting of the JCVI Varicella subgroup will take place on 4 December 2007 and will be chaired by Dr Stephen Inglis.
3.2 JCVI processes
The document was placed on the website.

The Committee agreed that the document should also contain a further line that states that members of JCVI are not remunerated by the Department of Health.

3.3 JCVI annual report
The secretariat said that the hard copy of the JCVI annual report was not yet ready but would be sent out in a week’s time. The secretariat will post the report on the DH JCVI website.

4. HPV

The following members declared interests in Sanofi Pasteur or GSK.

Professor Simon Kroll non-personal, non-specific
Professor Jon Friedland non-personal, non-specific
Dr Syed Ahmed non-personal, non-specific
Dr Ray Borrow non-personal, specific
Dr Stephen Inglis non-personal, specific
Pauline MacDonald non-personal, non-specific
Professor David Goldblatt non-personal, non-specific
Professor Paul Griffiths non-personal, non-specific

Dr John Edmunds (HPA) also declared a personal, non-specific interest.

A summary was provided of the peer review process that has been carried out over the summer. The HPV cost-effectiveness modelling work carried out by the HPA had been independently peer reviewed by HPV biologists, mathematical modellers, economists, including economists at NICE. In general the reviewers found that the analysis was an appropriate basis for decision making given the current state of knowledge. The reviewers and authors agreed that there were several areas where further research would be useful but that the current uncertainties were well reflected in the modelling.

The basis of the cost-effectiveness model and the implications of some of the assumptions made in the cost effectiveness modelling were outlined. This was accompanied by a presentation of the revised cost benefit analysis that has been modified following reviewers’ comments.

Several scenarios were presented which included variations in the duration of protection (from 10 years to lifetime protection); whether the vaccines provided protection against HPV types not included in the vaccine (cross protection), and the duration and QALY loss from an episode of warts.

Three significant changes had been made following comments from reviewers:

- Adenocarcinoma had been included in the base-case
- Other cancers attributable to Squamous cell carcinoma (SCC) or adenocarcinoma have now been included following a paper that suggested cancers coded as 'unknown carcinomas' were likely to be Squamous cell or adenocarcinomas.
- The structure of the transmission model was changed based on assumptions regarding number of transmissions per partnership.
The result of these changes had meant that the model was now a better fit with regard to high risk HPV types.

The administration costs were also altered to reflect that the majority of vaccinations would be administered by a nurse if carried out in primary care.

The results from the analysis showed that routine vaccination of girls with an HPV vaccine before the age of 14 years was cost-effective at 80% vaccine coverage and assuming the average duration of vaccine protection is at least 10 years. It was also cost-effective to vaccinate girls as part of a catch-up programme up to the age of 18 years (i.e. 17 years and 364 days). Vaccination of girls up to the age of 26 was not cost-effective, nor was vaccination of boys of any age.

The Committee agreed with the results of the modelling, including the underlying assumptions used in the model and processes used for peer review. The evidence presented led the Committee to confirm that a universal vaccination programme for girls aged 12 to 13 years would be cost effective. In addition to this, based on the new analysis presented, the Committee were now able to recommend a time-limited "catch up" vaccination of girls aged 13-17 years. This would be delivered most efficiently through schools.

The Committee observed that a "catch up" vaccination of women aged 18 to 25 years was not cost-effective. However the Committee recognised that the vaccine could benefit some individual women aged 18 and over who were at risk of new HPV infection with vaccine types. The Committee asked that the Department consider this further and explore mechanisms of meeting such requests.

The Committee also recommended that the time of vaccination be used as an opportunity to explain to women the importance of cervical screening, which will remain an essential component of the cervical cancer prevention programme.

The Committee considered whether either of the two licensed vaccines should be recommended in preference over the other. One vaccine (the bivalent) protects against infection with the two commonest types of HPV that cause cancer in the UK. The other protects against these same two types but also protects against the two common HPV types that cause genital warts (the quadrivalent vaccine).

The Committee recommended that the choice of vaccine to be purchased will be primarily determined by cost effectiveness which is highly dependent on the negotiated cost of the vaccines. But if the vaccines were offered at similar prices, then the Committee recommends choosing the quadrivalent vaccine, which would prevent genital warts as well as cervical cancer. Any differential between the prices offered would need to compensate for the lack of protection against warts.

The Committee considered a comprehensive plan to monitor and evaluate the introduction of the vaccine. This will be critical in determining any future modifications to cervical cancer control. The committee recommended that this plan be fully funded as an integral part of the vaccine introduction.

Finally the Chair noted that he was pleased to make these recommendations to the Minister for Public Health and he would be happy to discuss them with her if helpful.

Two additional papers on vaccine scheduling for Gardasil and Cervavix were presented.

The advice in the papers was noted and agreed by the Committee.
Gardasil

- Doses given at 0, 1-2 months and 4-6 months is consistent with the Summary of Product Characteristics (SPC) for Gardasil, and provides a degree of flexibility.
- Individuals who miss one or two doses of the vaccination course given within a 12 month period should still be recommended to receive the completing doses up to the upper age of a catch-up programme;
- That it would be appropriate to give the teenage booster (Td/IPV) at the same time as HPV vaccine. If HPV and Td/IPV vaccines are co-administered in girls aged 12-13 years, the Committee noted that the interval between routine pre-school DTaP/IPV booster and teenage Td/IPV may be less than 10 years, and could be as low as 8 in some areas, either currently or in the future. The risk of this should be minimised if the pre-school booster is given, as recently recommended, by three years six months of age. Current advice in the Green Book is that there should be a 10 year interval will between the pre-school DTaP/IPV booster and the teenage Td/IPV booster but it was noted that the Green Book already states that a five year gap is acceptable if there has been a delay in the pre-school booster.
- That intramuscular injection is the recommended method of administration but that in line with general advice in the Green Book for vaccination of individuals with a bleeding disorder, HPV vaccines should be given subcutaneously for individuals with bleeding disorders.
- That a previous anaphylactic reaction to yeast is not a contraindication to receipt of Gardasil, according to the SPC.
- That HPV vaccine should not be given to females who are known to be pregnant.
- Breastfeeding is not a contraindication to vaccination.

Cervarix

- The Committee advised that - bearing in mind the recommended schedule of 0/1/6 months - that completing the three dose course within a 12-month period is acceptable, and also that individuals who miss one or two doses of the vaccination course within that period should still receive the completing doses up to the upper age of a catch-up programme
- The Committee further advised that Cervarix and the Td/IPV school leaver booster can be co-administered, and noted in so recommending that this might reduce the time gap between the pre-school booster and the teenage booster.
- The Committee confirmed that, in line with general advice in the Green Book, Cervarix should be given subcutaneously for individuals with bleeding disorders.
- The Committee further agreed that the vaccination of females known to be pregnant should be deferred until after their pregnancy, and also that breastfeeding is not a contraindication for vaccination. The Committee did however note the possibility that, in these situations, vaccination might not be appropriate as these individuals are sexually active and may already be infected.
- The Committee recommended that Gardasil and Cervarix should not be used interchangeably - unless further evidence becomes available in order to reconsider this position.

5. Pneumococcal

The following members declared interests in Sanofi Pasteur, Wyeth or GSK.
The pneumococcal subgroup met on 7 December 2007 and the next meeting is planned for 22 January 2008. The subgroup chair reported that at this stage no recommendations could be made as further data were required. The minutes were agreed and will be posted on the DH JCVI website.

Three members of the subgroup who have personal specific interests were given exception to be involved in discussions as their expertise was pertinent but would play no role in formulating the recommendations.

6. Pertussis

A summary paper was presented highlighting the epidemiology of Pertussis in England and Wales, based on national surveillance data.

The surveillance data gave no indication of an emerging public health problem (as seen in other countries where resurgences in adolescent pertussis have occurred). Pertussis rates have continued to go down following the introduction of the preschool booster, and benefits have also been seen from the accelerated schedule. Pertussis is still a problem in young infants, so strategies to protect the very young should be identified for the future. There is also no evidence of problems since moving from a whole cell to five-component acellular pertussis, but this should continue to be monitored. It is important to maintain a high level of surveillance of pertussis, with better data on morbidity, and further transmission modelling work planned.

It is important to ensure that the older siblings of new born babies are fully vaccinated. There is an opportunity during antenatal visits to check if a woman's older children are fully vaccinated, and the Committee encouraged that this should be done routinely.

7. Tetanus

The chairman explained that this agenda item would be deferred to the next meeting in February 2008. The Secretariat would prepare a draft statement on tetanus vaccination for the Committee to consider.

8. Rotavirus subgroup

The chairman reported that the expert review conducted via correspondence by a rotavirus subgroup had not delivered the high quality analysis that had been hoped due to the lack of interaction that this format afforded between the members.

The Committee agreed that the subgroup should meet to consider unresolved issues as this forum would help facilitate discussion and consensus. The secretariat will arrange a date.

9. Pandemic Flu update
The following members declared interest in Sanofi Pasteur, GSK, Baxter, Novartis or Merck.

Professor Simon Kroll non-personal, non-specific
Professor Jon Friedland non-personal, non-specific
Dr Syed Ahmed non-specific, non-personal
Dr Ray Borrow non-personal, non-specific
Dr Stephen Inglis non-personal, specific
Pauline MacDonald non-personal, non-specific
Professor David Goldblatt non-personal, non-specific
Professor Paul Griffiths non-personal, non-specific

Dr John Edmunds from the HPA also declared a personal, non-specific interest (GSK).

Developing a strategic approach to prepandemic vaccine

A key point in the discussion on the use of pre-pandemic vaccines was that the level of protection afforded against a newly emerging virus strain would not be known in advance.

The Committee's previous advice on prepandemic vaccine was that current stocks of H5N1 vaccine should be reserved for frontline health care workers.

In terms of the implementation of a pre-pandemic vaccination programme, the Committee's view was that a universal programme would be ideal but prioritisation for certain groups was more likely.

A presentation was provided on various pre-pandemic prioritisation strategies, based on modeling work that predicted the impact of vaccinating risk groups on reduced morbidity, mortality, and reduced transmission.

The model proposed a strategy that relied on a number of layered interventions from the use of prepandemic vaccines, antivirals, antibiotics to treat secondary complications, and masks. It was proposed that used together these could reduce the impact of a pandemic down to the level of seasonal activity, and even if one intervention failed there would still be an impact.

The modeling work assumed that schools would be closed for a minimum period of 3 weeks at the peak of flu activity. In reality, it may be more practical for schools to close for longer. If schools are closed, then the level of influenza transmission may drop to 50% in those age groups, but this assumes minimal mixing of children outside of the school environment.

School-aged children are the main transmitters of flu, and could be offered flu vaccination to reduce the spread of infection. If however the main priority for pre-pandemic flu vaccination was to prevent the number of cases and deaths, then the elderly may benefit from vaccination. Attitudinal research has indicated that people may prefer to prioritise children over the elderly if supplies of pandemic vaccine are limited.

The Committee noted media reporting that it was difficult to define key workers and a discussion was needed on whether the families of key workers should also be offered pre-pandemic flu vaccination.

Currently the shelf life of a prepandemic vaccine is 1 year but manufacturers and NIBSC are looking at options to extend the shelf life. There is also the option of separating
adjuvant and antigen, so that the decision on the antigen most appropriate to use can be made in the future as the need arises.

An initial 40% stockpile could be increased later to a 100% option.

There was broad agreement that the available scientific evidence supported the strategic approach of stockpiling pre-pandemic vaccine. The Committee agreed that, while universal vaccination was the preferred option, should prioritisation be necessary, then the following groups, in no particular order, should be targeted: health and social care workers, children under 16 years and vulnerable groups such as those identified for seasonal influenza vaccination. The Committee did point out, however, that the groups might be subject to modification or internal re-ordering in the light of scientific developments, vaccine availability at the time of a campaign and real time knowledge of the scientific and clinical impact of the pandemic virus.

The Committee also noted the safety issues with mass vaccination campaigns of this type, observing that negative media coverage could be potentially damaging to the pandemic influenza vaccination campaign itself and vaccination policies more generally.

10. Discussions with vaccine manufacturers

The Chair explained that he had met with UK Vaccine Industry Group (UVIG) and it was a successful meeting.

The Committee agreed it was not appropriate for UVIG to attend a main JCVI meeting. The Committee did however agree that the occasion may arise when UVIG were asked to present information to a subgroup.

The Chair agreed that he would respond to UVIG appropriately.

11. NICE guidance on inequalities and immunisation paper for the consultation

The Committee was informed that NICE was seeking two members from JCVI to provide expert advice and input in the preparation of guidance on ‘mechanisms to reduce inequalities in the uptake of immunisation amongst individuals under the age of 19 yrs, including targeted vaccines’. JCVI input was needed at two key points including (1) during December 2007 as part of the scoping exercise and (2) in September 2008 join the NICE Public Health Advisory Committee to review the evidence collected and draft recommendations.

The Committee was reminded, in addition, that it can also register as a stakeholder and offer its comments on development of the guidance.

12. COVERAGE

12.1 & 12.2 Quarterly COVER report for England and UK

The quarterly vaccination coverage statistics for the United Kingdom for the period April to June 2007 were presented to the Committee (JCVI(07)61 and JCVI(07)62).

The Committee noted that uptake of the primary vaccinations by 24 months ranged from 90.1% in England to 96.4% in Scotland. MMR uptake at the same age ranged from 84.6% (England) to 92.3% (Scotland), and was slightly down on the previous quarter.
Overall all countries were seeing an encouraging increase in MMR uptake over the last couple of years.

In Scotland the uptake was generally higher. In Wales uptake was encouraging and rising. A study would look more closely at uptake of the teenage booster.

The Committee expressed its concern at the continuing low vaccination rates in London. The Committee noted that the Department of Health Immunisation Department had met with the London Strategic Health Authority to discuss the challenges they face in immunisation and to try to find a way forward.

The National Child Health Immunisation Standards Board (NCHISB) meeting with the HPA and Strategic Authorities in London discussed data issues and looked at examples of good uptake in some PCT's not such good take up in others: see minutes. The NCHISB plan to continue to meet every 2 months.

13. Attitudes to vaccines

Two attitudinal studies were presented to the committee.

Attitudes to HPV vaccination
A study to explore awareness and perceptions of the proposed HPV vaccine among parents of eleven to twelve year olds, potential vaccine recipients aged eleven to eighteen and health professionals was reported.

Amongst parents, awareness of cervical cancer was high. Awareness of the human papilloma virus (HPV) and its causative link to cervical cancer was very low. There was some awareness of a proposed vaccine for cervical cancer. A vaccine for cervical cancer was seen to be unquestionably a 'good thing' in principle and the majority supported the idea of a catch-up programme for thirteen to eighteen year olds.

Among the young people there was very low awareness of cervical cancer or the virus that caused it. The overwhelming majority of young women were in favour of the vaccination, and felt that their parents would be supportive.

All the health professionals interviewed were in favour of the vaccine and the majority were unequivocal in their support. They all believed that parental consent would be necessary.

All believed that the introduction of HPV vaccine would need to be supported by provision of appropriate information.

TB/BCG
This paper outlined the findings of testing public attitudes to TB/BCG and supporting materials in African, Indian, Pakistani and Chinese communities and also in mothers with babies.

The broad objectives for research were:
To understand current levels of knowledge regarding TB as well as ascertaining information needs.
Examine perceptions of the BCG vaccine and assess the information materials.

Awareness of TB varied across communities, with Indians, Pakistanis and some Africans having better knowledge of its symptoms and seriousness than those from other communities. Most respondents were unaware that TB existed in the UK. Most
considered it to be "curable" or a disease of the past. Attitudes were relaxed and the level of personal risk was considered to be low.

There was very low awareness of the BCG vaccine (even though many had had it) and of its link with TB. Mothers tended to delegate the decision about such vaccinations for their babies to health professionals and were happy to follow the advice given by their doctors. Nobody was aware of the change in policy over BCG vaccinations.

The current TB and BCG leaflets were well received in terms of the information they provided. They were felt to be very detailed and informative while remaining clear, simple and easy to read and comprehend. The overall format of the leaflets was liked. Thus, the main barrier to current engagement / likelihood to read such leaflets related to low concern over TB rather than the leaflets themselves.

The new (cartoon) designs for the TB and BCG leaflets were not very well received. They tended to devalue the seriousness of messages around diseases like TB. They did not meet the primary objective to "maximise effectiveness with these audiences" (i.e. to increase awareness and engagement with TB).

The poster, however, seemed to work well, despite the use of cartoons. This was because people preferred to see cartoon characters suffering the symptoms of TB to real human beings. The recommendation was to continue with the current leaflets but use the new poster design.

The Committee noted these papers.

14. Audit of cold chain in Scotland

The Committee was updated on a recent initiative in Scotland on the management of the cold chain in primary care.

As a result of a problem in two practices in Grampian, all NHS Boards were asked by the Scottish Government to review 3 months of Scottish temperature logs from all 1,030 practices in the country. An audit was carried out and an algorithm was produced by Health Protection Scotland and NHS Boards with input from the HPA. Preliminary findings indicate that an estimated 15% were not maintaining the cold chain effectively. There was a range of reasons for variation in temperatures among which were poorly maintained fridges and variation in practice in managing the cold chain. In four practices, reimmunisation was required. Scotland feel that there is further work to be carried out on good practice and assuring the cold chain in primary care settings. A final report is awaited.

The Committee has taken note of the issues in Scotland and advised that steps should be taken to ensure that vaccines in primary care and other settings should be stored at the right temperature.

15. Articles for information

The following articles for information were bought to the Committee’s attention.

- Director of Immunisation Influenza letter 24 July 2007
- Hib catch up CMO letter 23 July 2007
- Hib scientific paper
16. AOB

No AOB issues were discussed.

17. Dates of future meetings

- Wednesday 13 February 2008 confirmed
- Wednesday 18 June 2008 confirmed
- Wednesday 15 October 2008 confirmed
- Wednesday 18 February 2009 tbc