

## **Possible simplification of the childhood vaccination schedule – Attitudinal research into combining the twelve and thirteen month immunisations**

### **Introduction**

1. To consider simplification of the routine childhood immunisation schedule by offering Hib/MenC, PCV and MMR vaccinations combined at a single visit.

### **Issue**

2. Currently the routine childhood schedule indicates that three immunisations should be offered between twelve and thirteen months of age – Hib/MenC<sup>1</sup> (at 12 months of age), PCV<sup>2</sup> and MMR<sup>3</sup> (at 13 months of age).
3. The reason for separating the PCV from the Hib/MenC and MMR vaccines when this schedule was developed was limited evidence on the immunogenicity of administering PCV and Hib/MenC vaccines together and a theoretical possibility of an interaction between the vaccines such that the immune response would be attenuated if the vaccines were co-administered.
4. In June 2009, JCVI considered a pre-publication clinical trial paper from Miller *et al.* that showed that co-administration did not adversely affect the immune response elicited by the vaccines. In addition, no safety concerns around co-administration were identified.
5. The committee welcomed the paper and noted that there is no need to change the schedule but this information provides additional flexibility if all three vaccines or the two conjugate vaccines need to be co-administered. It was noted that the parents' views to combining all three vaccinations were not known and that before making any changes in the schedule, the attitudes of parents should be sought.<sup>4</sup>
6. In Feb 2010, DH informed the committee that it was initiating a research project to investigate the attitudes of parents to the childhood vaccinations at 12 and 13 months of age and the recent findings from Miller *et al.*<sup>5</sup> This research has now been completed and is presented in this paper.
7. There is anecdotal evidence that some PCTs have chosen to offer these vaccinations at a single visit on the basis of JCVI's consideration of the clinical trial of co-administration of these vaccines at 12 months of age.

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<sup>1</sup> Hib/MenC (Menitorix®): combined vaccine against *Haemophilus influenzae* type b (Hib) and meningococcal group C disease (MenC).

<sup>2</sup> PCV (Prevenar13®): pneumococcal conjugate vaccine against 13 common capsular types of *Streptococcus pneumoniae* bacteria.

<sup>3</sup> MMR (Priorix® or MMRVaxPro®): combined vaccine against measles, mumps and rubella viruses.

<sup>4</sup> [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@ab/documents/digitalasset/dh\\_116040.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_116040.pdf)

<sup>5</sup> [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@ab/documents/digitalasset/dh\\_118114.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_118114.pdf)

8. Evidence suggests that there is very little or no interference in the response to MMR vaccine from maternal antibodies after 12 months of age and there is evidence that interference from maternal antibodies may wane before 12 months.<sup>6,7</sup>

### **Research**

9. Qualitative research was commissioned and carried out in Spring 2010 to explore parents' reactions to the possibility of administering the Hib/MenC, PCV and MMR vaccines on a single occasion on or just after a child's first birthday. An executive summary of the research is provided in **Annex A**. Should members wish to see it, the entire research report can be provided.

### **Advice sought from the committee**

10. JCVI is asked whether, on the basis of the scientific research that the committee has previously reviewed and the results of the attitudinal research presented in this paper that:
- the routine childhood immunisation schedule should be simplified by offering Hib/MenC, PCV and MMR vaccinations at a single visit, at or soon after a child's first birthday; and
  - the Green Book should be revised accordingly.

**JCVI Secretariat, October 2010**

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<sup>6</sup> Strebel *et al.* Measles In Plotkin, Orenstein & Offit. *Vaccines*. 5<sup>th</sup> Edition. pp353-298.

<sup>7</sup> Manikkavasagan G and Ramsay M (2009) Protecting infants against measles in England and Wales: a review. *Arch Dis Child* **94**(9): 681-5. <http://www.ncbi.nlm.nih.gov/sites/entrez/19457878>

## **Annex A**

### **COI Research Management Summary on Behalf of the Department of Health**

**Title:**

Attitudes to combining 12 and 13 month immunisation – qualitative research among parents and health professionals (July 2010)

**COI Reference number:** 400150

**Audience/Sample:**

Mothers and fathers of babies up to 11 months; sample segmented by presence of older children, social class, region and attitude to MMR. Health professionals: midwives and practice nurses.

**Background:**

In June 2009 the Joint Committee on Vaccination and Immunisation concluded that there is no scientific reason to keep the combined Hib and Meningitis C vaccine (currently given at 12 months) and the MMR and pneumococcal vaccines (given at 13 months) separate.

**Research Objectives:**

To explore parents' reactions to the possibility of administering the Hib/MenC, PCV and MMR vaccines on a single occasion around a child's first birthday.

**Methodology:**

22 paired depth interviews and 6 group discussions with parents; 2 group discussions with health professionals.

**Fieldwork Dates:**

Interviews and groups were conducted between 20<sup>th</sup> May and 9<sup>th</sup> June 2010.

**Fieldwork Timings:**

Fieldwork was conducted in London, the Midlands and the North of England.

## Conclusions and Recommendations:

1. Awareness among parents of the current immunisation timetable, particularly around 12 and 13 months, was low. Most assumed that there is only one appointment at this stage; and that it is for (or includes) MMR. Though generally parents trusted the schedule, the NHS and health professionals to get it right, those with reservations about MMR were more anxious about this part of the schedule than others. The 4-month vaccinations and the other vaccinations given at 12 and 13 months were generally accepted without question.
2. Among those with doubts about it, MMR was an exception, and did not influence perceptions of the programme as a whole; parents with concerns about MMR had no worries about the other vaccines. Health professionals tended to deal with far more questions about MMR than other vaccines, though some believed the controversy around MMR is dying down. While the principle of combining vaccinations and/or giving more than one at the same time appeared largely to be accepted, if one of these is MMR, views can change.
3. The combined schedule at 12 and 13 months was regarded with mixed feelings; if it is introduced, the way in which it is communicated will have a significant impact on how it is received. Given low awareness of the immunisation schedule, parents are unlikely to notice the change *until informed about it*.
4. When the combined schedule was presented to parents first (before seeing the current schedule), very few identified the appointment at a year of age as different or worthy of comment. Parents' problems and worries only came to the surface when the combined option was explicitly presented as a change to the schedule. Those in areas where the combined schedule is apparently already being given accepted it without question. When parents were told that the new schedule involves giving MMR and PCV at the same time as another vaccine, some changed their views, including some of those who were otherwise accepting of MMR.
5. Offering parents a choice between the two schedules could generate more questions than answers, and seems unwise. It might also risk compromising current understanding of the vaccination schedule as 'just what happens', and reframing it as optional, which could reduce vaccine uptake.
6. It is also clear that giving parents detailed information, and flagging up changes, can generate anxiety where it is not warranted. In light of this, it seems sensible to introduce the combined schedule as far as possible without announcing it explicitly as a change.
7. If the combined immunisation is introduced, some parents will have questions about it, and health professionals, especially health visitors and practice nurses, will be their first port of call for information. Health professionals will have an important part to play in informing and reassuring parents, and they will need to provide consistent answers; any variation between what they say is likely to create a sense of unease among parents.

8. Health professionals will need to be ready to reassure parents that...
  - combining vaccinations into one appointment and giving three at a time is entirely safe
  - the fact that MMR is one of these makes no difference, because MMR is safe
  - there is a good reason for the change: though the current system is effective and safe, changing it will be an improvement
  - there are significant benefits to baby and parent in having one fewer appointment and reduced distress
9. Given continued sensitivity about MMR, any negative news coverage will have a significant impact. Health professionals will be the front line in combating this, and will need to be kept fully informed on the latest information from JCVI and DH to prevent any contradictions or confusion, and to ensure that they are equipped to reassure parents.
10. It is important that the information given by health professionals is pitched at the right level. The JCVI information prompted questions among many respondents, but was useful for reassuring some, particularly those with a more pragmatic view of immunisation. Information at this level needs to be carefully tailored by health professionals according to the attitudes of individual parents.