JOINT COMMITTEE ON VACCINATION AND IMMUNISATION

Minute of a conference call on 30 December 2010

Members
Professor Andrew Hall (Chair)
Dr Peter Baxter
Professor Judith Breuer
Professor Alan Emond
Dr Jennifer Harries
Dr Gabrielle Laing
Mr Daniel Jackson
Mrs Pauline MacDonald
Dr Patricia Moore
Dr Richard Roberts
Dr Andrew Riordan

Additional participants
Professor Liz Miller – HPA
Professor John Watson – HPA
Dr Richard Pebody – HPA
Dr Jim McMenamin – HPS
Dr Andrew Riley – Scottish Government
Dr Sara Hayes – Welsh Assembly Government
Dr Elizabeth Reaney– DHSSNI

Department of Health
Professor David Harper
Professor David Salisbury
Dr Dorian Kennedy
Dr Tom Barlow (minute)

1. The chair welcomed all to the conference call to consider an urgent request for advice from the interim Chief Medical Officer in relation to the 2010/11 seasonal influenza vaccination programme, particularly with regard to young children. This request was made in light of latest epidemiological data. Apologies had been received from the following members: Professors Jon Friedland, Ray Borrow, Matt Keeling, Claire-Anne Siegrist, Drs Syed Ahmed and Anthony Harnden and Ms Anne McGowan.

2. JCVI considered a number of written and verbal reports (listed in Annex 1).

3. The committee noted that levels of influenza-like illness from community surveillance had increased sharply in recent weeks with the highest levels seen in children under five years of age. Over 120 outbreaks had been reported with most in schools. An increasing number of samples tested both from community and hospital surveillance were positive for influenza viruses, mostly influenza A (H1N1v) but also some B, however a significant proportion of samples from young children were positive for other viruses such as Respiratory Syncytial Virus (RSV). There were no clear indications that the outbreak had reached its peak yet. Most of the 39 people that had died from confirmed influenza were infected with the H1N1v virus, many were in clinical risk groups with neurological disease and respiratory disease including asthma the most prevalent clinical risk factors, and most had received neither trivalent seasonal

influenza vaccine this winter nor pandemic influenza vaccine last winter. A small proportion of those in ICU or that had died from confirmed influenza were young children. The numbers hospitalised or dead were not as high as during the 2009 pandemic but cases had a similar age distribution. Historic experience of seasonal influenza outbreaks suggested that they last for about two months. Therefore, the current outbreak would be expected to last around a further month.

4. The committee noted that the size of the current outbreak seemed inconsistent with the level of population immunity that had been suggested by seroepidemiological studies of samples collected during the 2009 pandemic and the finding that the cessation of the second wave of the pandemic had started towards the end of 2009 whilst schools were open. It was suggested that persistent natural immunity, particularly in people aged under 65 years, might require repeated exposure to the same virus. Genetic studies had shown there to be no significant genetic changes in the H1N1v virus to date that might explain the lower than expected population immunity and the spread of the infection occurring currently.

5. The committee noted that a large proportion of those in clinical risk groups aged under 65 years remained unvaccinated against seasonal influenza this winter.

6. The committee considered the findings of a modelling study by Baguelin *et al.* (2010) of the impact of vaccination strategies during the 2009 pandemic in the context of the current outbreak. It was concluded that the data suggest there is clear benefit to increasing the uptake of vaccine in risk groups to reduce hospitalisations and deaths. There might be additional benefit from vaccinating children, particularly of those five to 15 years of age, to stop transmission, if vaccinations could be completed very rapidly.

7. The committee noted that, whilst further supplies of trivalent seasonal influenza vaccine were available, these may be unevenly spread geographically and advice had been issued to primary care on how to source further supplies. There is also a large stockpile of the monovalent H1N1v vaccine (Pandemrix) available.

8. The committee noted that whilst data on the immunogenicity of trivalent seasonal influenza vaccine in children are limited, some studies, in particular a recent small study by Heinonen *et al* (2010), had shown the vaccine to be reasonably effective in young children. Pandemrix had been shown to be immunogenic in young children and evidence suggested that it could be given safely to children previously infected with H1N1v or that had received Pandemrix previously during the pandemic.

9. The committee noted that in previously unvaccinated young children two doses of trivalent seasonal influenza vaccine would be required to produce a full immune response within four to six weeks of the first vaccination, although a quicker response would be expected in previously vaccinated children. This would give protection against influenza A H1N1v and B strains that are currently responsible for most severe influenza infections. Whilst a full immune response would be acquired within two weeks following administration of Pandemrix, it would only be against the H1N1v strain. Therefore, remaining stocks of trivalent seasonal influenza vaccine should be used first.

10. The committee considered the wider vaccination of healthy age groups, in particular children. As a result of the 2009 pandemic, there is more experience in primary care of the implementation of mass influenza vaccination programmes, however it was suggested that some staff would have changed or moved roles since then. There are likely to be a number of factors that might impede the very rapid implementation of a wider immunisation programme, including the time taken to supply vaccine to all GPs

to allow additional healthy groups to be vaccinated and the time taken to identify and call them into surgeries for vaccination, which altogether may take several weeks. It is possible that there may be low uptake of vaccine because of safety concerns, particularly about the pandemic vaccine, despite the established safety of seasonal and pandemic influenza vaccines. However recent anecdotal evidence suggested that, because of recent media publicity, many more people wished themselves and their children to be vaccinated than may have been the case during the pandemic.

11. The committee concluded that more effort should given to increasing uptake in clinical risk groups as this is where the greatest public health benefit would lie. Widening the vaccination programme to include healthy children or other healthy age groups is unlikely to be effective given the likely duration of the current outbreak and the length of time that it would take to deliver vaccinations to large numbers of healthy children or other age groups and for them to acquire immunity. Furthermore, widening the vaccination programme might dilute efforts in primary care to vaccinate more of those in clinical risk groups. Stakeholder groups might be able to play a role in increasing vaccine uptake amongst risk groups.

12. The committee issued the following statement:

"JCVI was presented with data on the current seasonal influenza epidemiology, seroepidemological data collected during the 2009/10 pandemic, modelling of the impact of vaccination strategies during the pandemic, data on the effectiveness of influenza vaccines in the young and vaccine uptake and safety data.

JCVI noted that a large proportion of those individuals with severe disease are in recognised risk groups for influenza but unfortunately were not vaccinated. It strongly re-iterated its previous advice that all individuals in risk groups should be vaccinated as soon as possible, particularly those aged less than 65 years.

The committee considered the issue of offering vaccination to healthy children either 0-4 years and/or 5-15 years of age. However, although there is a high incidence of influenza-like illness currently in these age groups, a significant proportion of this is due to other viruses such as Respiratory Syncytial Virus (RSV). In addition, only a very small proportion of those with severe disease are in these age groups. Based on previous seasonal influenza epidemiology it would be hoped that influenza circulation will have subsided within a month. We do not believe that seasonal or pandemic vaccine should be used for these or other healthy person groups. The greatest gain will be achieved in increasing vaccine uptake in the clinical risk groups. These are:

- Chronic respiratory disease, including asthma
- Chronic neurological disease
- Chronic heart disease
- Chronic kidney disease
- Chronic liver disease
- Diabetes
- Immunosuppression
- Pregnancy

JCVI hopes that stakeholder groups such as Scope and the Neurological Alliance will emphasise the importance of vaccination to their constituencies."

Declarations of interest

The following members declared interests in companies that manufacture seasonal and pandemic influenza vaccines (Baxter, GSK, MASTA, Novartis, Pfizer, Sanofi-Pasteur MSD, Solvay):

Member	Interests	Action
Judith Breuer	Non-personal, non-specific Sanofi-Pasteur MSD	The member participated in the discussion and decision
Pauline MacDonald	Personal, non-specific GSK Non-personal, non-specific Sanofi-Pasteur MSD	The Chair ruled that the member was allowed to participate in the discussion and decision
Andrew Riordan	Personal, non-specific GSK	The Chair ruled that the member was allowed to participate in the discussion and decision

Annex 1

Evidence considered by JCVI

- HPA Weekly National Influenza Report, 30 December 2009 (Week 52) http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1287147913387

- A paper with summary data on influenza-like activity, vaccine uptake, vaccine availability and the immunogenicity / effectiveness of influenza vaccines in children.

- Baguelin *et al.* (2010) Vaccination against pandemic influenza A/H1N1v in England: a real-time economic evaluation. *Vaccine.* 28, 2370-2384.

- Heinonen *et al.* (2010) Effectiveness of inactivated influenza vaccine in children aged 9 months to 3 years: an observational cohort study. *Lancet.* Published online and associated commentary.

- An unpublished Health Technology Assessment by Hardelid *et al.* Assessment of baseline age-specific antibody prevalence and incidence of infection to novel influenza A H1N1 2009.

- Verbal reports on influenza epidemiology, vaccine uptake, vaccine safety and genetic change of the H1N1v influenza virus.