REPORT OF THE PANDEMIC INFLUENZA WORKING GROUP

ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS

MARCH 2010

Membership of the RCOG Pandemic Influenza Working Group

Mr Boon Lim, RCOG Clinical Member (Chair and Clinical Lead),

Mr Patrick O'Brien, RCOG Clinical Member

Miss Susan Tuck, RCOG Clinical Member

Mr Gerald Chan, Head of Communication, RCOG

Ms Mervi Jokinen, Royal College of Midwives Representative

Miss Heather Mellows, Professional Adviser for Maternity Services, Department of Health

Mrs Suzanne Cox, Centre for Maternal And Child Enquiries (CMACE)

Miss Jo Modder, CMACE

Dr Catherine Nelson-Piercy, United Kingdom Obstetric Surveillance System (UKOSS)

Dr Marian Knight, UKOSS

Mrs Gillian Baker, Chair, RCOG Consumers' Forum

Mrs Elizabeth Duff, RCOG Consumers' Forum

Dr Maureen Baker, Hon. Secretary, Royal College of General Practitioners

Prof. Nick Phin, Health Protection Agency

Dr Tahir Mahmood, Vice-President Standards RCOG acted as a RCOG Liaison officer for communication with the Officers Group and the college media office. This link with the group ensured that the college web-site remained up-to-date and the responsible officer could communicate with the Clinical Directors Group regularly.

Introduction

Planning for a pandemic influenza has been co-ordinated by the Chief Medical Officer for England and the Department of Health since around 2006. At the request of the RCOG, the College's involvement in pandemic flu planning started in 2007 when the three clinical members (see membership list) were invited to join the Department of Health's (DH) Working Group on Pandemic Influenza in Pregnancy on 10 October 2007. This group was chaired by Professor Chris Redman. This resulted in the production of the document "Pandemic influenza - Guidance on preparing maternity services" which contained valuable information for both health planners and clinicians in the event of a pandemic flu.

As the last pandemic happened over 40 years ago, and clear clinical data on the effects of pandemic influenza was not easily available, planning was based on the assumption of a worst-case scenario and the potentially lethal effects of the Avian flu (H5N1) strain. Recognizing the importance of education and dissemination of information, the RCOG and DH held a joint conference on Pandemic Flu Planning in December 2008, which coincided with the launch of the guidance document. At the same time, a podcast on pandemic flu planning and the consequences of influenza on the pregnant population was produced to complement the meeting. This was published as a free resource on the RCOG's website. All material from the conference was made available on the website for future reference should a pandemic arise. The RCOG press office tried to promote this meeting to the media so that good and accurate information is

filtered through to the public but media interest at this stage was low. The response was that it was 'too clinical' an issue to be of interest to the public. Following the conference, work continued with pandemic planning and the RCOG was involved in the design of the clinical dataset for the influenza Clinical Information Network (FLU-CIN) and also the algorithm for the Flu Line which was the prototype of the National Pandemic Flu Service (NPFS). The aim of FLU-CIN was to set up a network of sentinel hospitals to collect clinical data for research and development of clinical guidelines when a pandemic occurred.

It had always been assumed that the first reported cases of a pandemic influenza (assuming the Avian Flu as a model) would arise from the Far East and that the first wave of spread to Europe and the UK would take around three months, allowing for some time to activate the pandemic plans. However, in April 2009, reports of influenza from a novel strain of the influenza virus A H1N1 (Swine Flu) began to emerge from the United States of America and Mexico. The first cases of the infection were reported in the United Kingdom in May. One of the earliest reported mortalities associated with the Pandemic 2009 H1N1 virus was in a pregnant woman, who also had other co-morbidities. On 11 June 2009, the World Health Organisation (WHO) announced that the outbreak of the novel H1N1 virus (Swine Flu) had become a global pandemic. The relevant agencies i.e. DH, Health Protection Agency were proactively involved in the management of the reported cases, moving swiftly to the 'containment phase' to reduce the risk of spread of the infection. When the number of reported cases became

widespread, the strategy moved to the ‘treatment phase’ with provision of antiviral treatment for clinically diagnosed cases and the establishment of the National Pandemic Flu Service to provide easier access to treatment and to reduce the burden on GPs.

The main advice given to the public was to prevent the spread of the infection by exercising good hand and respiratory hygiene.

The guidance for pregnant mothers came into the media spotlight when conflicting advice were given by authoritative bodies overseas and a perception that within the United Kingdom, advice between professional bodies and patient groups was different and confusing. This happened over two consecutive weekends starting on 20 July[1]. It was also not clear to pregnant women, nor to a significant number of health professionals, that pregnancy had any particular interaction with this virus strain, and therefore needed special considerations. The Press Office of the RCOG became actively involved in fielding enquiries and providing clear and consistent advice. The RCOG continued to present clear and consistent information to the media to help allay public fears and confusion.

Prior to this, it was recognised by the College that it had to be proactive in providing advice to clinicians with as much information as possible on an emerging new infection where there was still paucity of clinical advice. The three clinical members met with Gerald Chan, Head of Communications of the RCOG

and Mervi Jokinen of the Royal College of Midwives and it was agreed to set up a Swine Flu Information page on the RCOG and RCM websites. There was the acknowledgement that public information about swine flu and pregnancy was lacking at this early stage and these materials were the first to be developed and published.

Obstetricians from around the UK were also invited to share their clinical experience and their information was invaluable.

Following the intense media interest on issues related to pregnancy, it was agreed that clear and consistent advice needed to be provided by all agencies. With the President's approval, a formal Pandemic Influenza Working Group was formed.

Purpose of the Group

- Development of guidance for members of the public on issues relating to pregnancy and the pandemic H1N1 Influenza.
- Development of clinical guidance for healthcare professionals
- Development of infection control guidance specific to maternity, in addition to general infection control measures
- Monitor developments of the clinical and epidemiological picture in anticipation of any future surge of the influenza.

- Develop toolkit for clinical and operational issues in relation to maternity services and supporting PCTs and Trusts to identify potential gaps in services in the form of an operational and clinical dashboard.
- Ensure good clinical data collection by working with UKOSS and CMACE for morbidity and mortality data.
- To disseminate clinical lessons learnt from data collected or from individual clinician's experience.
- To identify research projects and to look for appropriate sources of funding.
- Monitor the international news agenda to understand how different health systems and countries were coping with the pandemic and to proactively management negative news issues.

Inter- relationship with other organisations

All information available on the RCOG website was posted as soon as it became available from all sources. This was intended to be of benefit to clinicians and members of the public.

The information for both clinicians and the public is still available on the RCOG's website with a link to other key organisations' websites such as the Department of Health, Health Protection Agency, RCM, RCGP, WHO etc.

Any information produced by the RCOG was shared with the RCM and guidance was usually jointly issued. Each guidance generated by the College was sent to

the Clinical Flu Team at the DH for comments and agreement before it was posted on the website.

The chair, on behalf of the RCOG, was a member on the Pandemic Influenza Clinical and Operational (PICO) Advisory Group of the Department of Health which met by teleconference weekly on Thursday afternoons. This group discussed and debated emerging clinical and operational policies that helped to inform the DH's response to the pandemic and also Ministers and the government in policy decisions.

Members of the group also attended the teleconference with the Department of Health's Maternity Team on Friday mornings on a fortnightly basis. This group was also a multidisciplinary group which considered issues specific to maternity. This group complemented the RCOG Pandemic Flu Working Group.

In addition, Pat O'Brien represented the RCOG on the Expert Working Group for Critical Care Services and also the Royal College of Paediatrics and Child Health Pandemic Group. He was also involved in the DH's work on testing the algorithm for the National Pandemic Flu Service.

The RCOG Pandemic Flu Planning Group met around once every month during the pandemic to share information and to examine best practice. Following each

meeting, new information about clinical issues was disseminated to RCOG members via a dedicated member email newsletter.

Key developments

- From the onset, the RCOG Pandemic Flu Planning Group was sensitive to the needs of the patient and identified the concerns which pregnant women would have. It was the first to develop pregnancy-specific advice for the public. Information was produced to address knowledge gaps throughout the pandemic.
- The RCOG, from a very early stage of the pandemic, set up a dedicated page on the College website to post up to date information for clinicians and the public
- The Press Office was proactive in obtaining breaking stories on the flu from around the world and providing updates as necessary. A media monitoring system was put in place to track the progress of news stories focusing on the effects of swine flu on pregnancy. When required, media statements in response to breaking stories were produced and jointly-released with the RCM.
- There was close working with the communications depart of the DH to ensure clear and consistent advice
- A symposium on Swine Flu was held jointly by the RCOG and DH on 12th October 2009 at the RCOG for clinicians and also the public to provide up to date information. Key speakers from the DH and the RCOG, including

the Chief Medical Officer for England, Sir Liam Donaldson, provided the most up to date picture on the evolving picture of the pandemic and the effects of the infection on the population, with a focus on pregnancy. The clinical meeting was followed by a public symposium in the evening to inform the public of the importance of the advice given by the various agencies. This was also a useful meeting which preceded the launch of the vaccination programme.

- A Clinical Management Guidelines document was published jointly with DH, providing useful clinical guidance for clinicians managing pregnant women with the infection and complications
- Further updated guidance for parents with newborn babies, advice for breastfeeding mothers and Q&A documents were published jointly with DH and the RCPCH
- Guidance was issued to clinicians on the vaccines in pregnancy. Other guidance published included algorithms, clinical advice and Q&As. These were updated regularly based on new evidence from international studies.
- A poll of RCOG members' views on the use of influenza vaccines during pregnancy was undertaken. The survey findings, though interesting, were never released as the number of respondents was deemed too small to be representative. However, these findings were used to help inform the College's communications with its members.

- Parliamentary questions and debates were monitored by the press office. Information on the RCOG's documents was provided to MPs which they could, in turn, signpost to their constituents.

Research and Audit

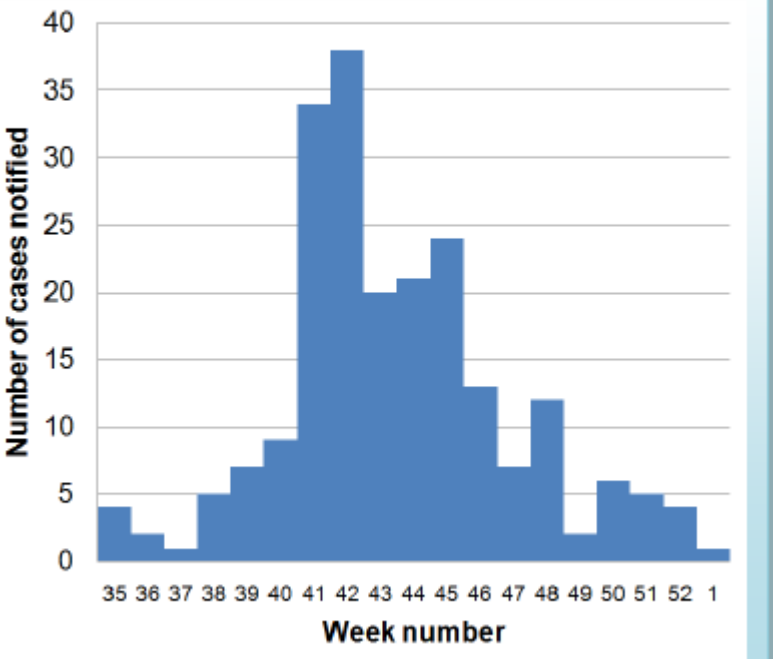
As the clinical and epidemiological picture was constantly changing, this had an impact on the advice that is given to clinicians and the public. The Chief Medical Officer had a weekly briefing to the media which contained excellent updates and new developments.

It was felt that robust clinical data on the outcome of the infection in pregnancy was vital not only to help develop guidelines but also as important lessons for the future. Both UKOSS and CMACE were involved in the group from an early stage.

UKOSS was involved in collecting data on morbidity of the infection in pregnancy and obtained information from hospitalised patients. To ensure that the information obtained covered as wide a cross section as possible, UKOSS worked closely with FLU-CIN and the Intensive Care Network to collect data.

The trends and characteristics of the infection in pregnancy are shown below:

2. Case reports



3. Characteristics of cases

Characteristic		% of cases (n=215)	% of controls* (n=1227)	Unadjusted odds ratio (95% CI)
Age:	<20	10	5	1.8 (1.1-3.0)
	20-34	78	73	1†
	>35	12	22	0.5 (0.3-0.8)
Body Mass index (BMI):	Normal	39	53	1†
	Overweight	34	29	1.6 (1.1-2.3)
	Obese	27	19	1.9 (1.3-2.8)
Managerial or professional occupation:		29	30	0.9 (0.6-1.4)
Black or other minority ethnic group:		23	18	1.3 (0.9-1.9)
Current smoking:		23	22	1.1 (0.8-1.6)
Asthma:		14	5	2.9 (1.8-4.5)
Multiparous		65	57	1.4 (1.0-1.9)

†Reference group

*Women delivering in UK obstetric units identified through UKOSS. For further details see Knight et al BMJ 2009 Mar 3;338:b542. Note that the use of this control group means that the excess risk reported may represent either an increased risk of infection or an increased risk of hospitalisation following infection. Work is underway to investigate this further.

Reproduced with permission from Dr Marian Knight, UKOSS

CMACE is responsible for assessing all maternal deaths in the United Kingdom. In view of the rapid changes in clinical information about the infection in pregnancy, a special review panel was formed to assess the cases of maternal deaths related to A H1N1 influenza. Twelve maternal deaths related to A/H1N1 2009 influenza were reported from 1 April 2009 to 13 January 2010 to the Centre for Maternal and Child Enquiries. Eight of these deaths have been assessed by a central review panel using confidential enquiry methodology and a report will be published by CMACE soon.

.

Lessons Learnt

Although the planning for a pandemic influenza has been taking place for the past 3 – 4 years, the emergence of the novel A H1N1 influenza was rapid and necessitated the progression of planning measures at a more rapid pace. Clearly, many lessons were learned and it is always helpful to reflect what went well and what could have been done better in order to help with planning for a future pandemic.

What went well…

1. Members of the group were readily available to provide their advice and share their expertise at short notice.
2. The Press Office of the RCOG was proactive in gathering information and fielding public and media enquiries.

3. The website was set up from the very early stages of the pandemic and provided the public and clinicians with useful information.
4. The opportunity and willingness of clinicians to share their experience in managing their patients with the infection were extremely valuable.
5. Good working relationship and co-ordination with the other professional bodies was very helpful.
6. Clear and consistent messages were issued.
7. The follow up symposium for clinicians and the public was very helpful in updating clinicians and helping the public to understand the impact of the infection on pregnancy and the value of vaccination against the infection.
8. Regular communication i.e. meetings, teleconferences with other clinical colleagues.
9. From a media perspective, because the College had developed good information that was freely available to the public, it meant that the College had policy documents to rely on when asked for comment. Despite the confusion that ensued over the summer, damage limitation was possible as the media was informed about the RCOG's position on an issue and they could then be encouraged to base their stories on the available facts.

What could have been done better…

1. The group could have been constituted earlier to ensure a more co-ordinated approach to production of guidance for the public i.e. before the media focus in July 2009.
2. Ability to collect clinical data in pregnancy from an earlier stage would have helped to develop clinical advice from an early stage.
3. The ability of FLU-CIN to collect pregnancy related data. FLU-CIN concentrated on data collection from the sentinel hospitals. However, clinical data on pregnancy was not complete as data from FLU-CIN did not necessarily represent all the pregnancy related complications. This was available at a later stage when UKOSS, which had an established system for collecting data on pregnancy related problems, was invited by the RCOG to collect data related to pregnancy. UKOPSS quickly established good links with FLU-CIN and the Critical care Network to ensure accuracy of data collection.
4. Occasionally, the channels of communication to the Department of Health did not seem clear i.e. sometimes, urgent clinical advice or advice to the public seemed to have to go through many channels of approval before they could be published.
5. Stakeholder relations need to be managed. The confusion that occurred in the media was caused primarily by patient groups offering medical advice to pregnant women. Subsequently, some members of the media

wrote alarmist stories about the conflicting advice. The discussions between worried mothers on online forums exacerbated the problem and provided further material for the media. This situation is difficult to control.

6. Paradoxically, the mass of information on the RCOG website (and other publicity) possibly led some clinicians to develop a level of scepticism about whether the clinical importance of this pandemic was being exaggerated. There continued to be a proportion of clinicians who voiced doubts about the advice issued (particularly in relation to the potential severity of the illness and the importance of early intervention with antiviral treatment and the benefits of the vaccine) and perpetuated confusion for women themselves.

Action Plan for the future

Whilst it is hoped that a pandemic is unlikely to emerge again soon, the lessons learned from this pandemic have been extremely valuable and should form the template for future planning. Should there be any sign of an emerging pandemic, the following should be put in place;

1. The relevant agencies i.e. Royal Colleges, DH, HPA, should identify key clinicians and individuals to work together to plan and issue guidance from an early stage.
2. Clinicians should be alerted through the relevant Royal College websites and an open (but secure) forum be established for clinicians to report their experience to share learning.

3. The Royal Colleges, together with DH and HPA, should try to reassure any scepticism amongst clinicians by providing as much clinical evidence as possible.
4. Although the RCOG Pandemic Flu Planning Group has now stood down, it could be reconstituted quickly in the event of a new wave of the pandemic, consisting of the same members.
5. There is also the need to keep patient groups informed of any information developed by the relevant agencies for them to cascade down to their members. Some groups may feel compelled to develop their own advice. If this is the case, these need to be vetted by the relevant agencies for accuracy and consistency.
6. It is envisaged that the H1N1 virus will be the prevailing viral strain in the next influenza season. For this reason, the Joint Committee on Vaccinations and Immunisations (JCVI) recommends that the vulnerable groups, including pregnant mothers, should still be offered the H1N1 vaccine.
7. The Swine Flu section of the College's website should still be maintained, with updated clinical information from around the world posted, to keep clinicians informed. Older information will be archived but with easy access given for reference.

Conclusion

Although the RCOG Pandemic Flu Planning Group, was not an official standing committee of the College, but it played a significant role in the development of clinical and public guidance in the 2009 AH1N1 (Swine Flu) Pandemic. The college website was regularly updated and it had a very high hit rate during the Summer-Autumn months (24000 hits during the month of August). All the key stakeholders were involved with the group and very close links were established. The importance of a clear and consistent approach to the development and dissemination of clinical and public information cannot be underestimated and the role of the members of the group in this is greatly appreciated.

We are extremely grateful to the President Prof Sir Sabaratnam Arulkumaran for his guidance and interest in setting up this short life working party to provide professional input in preparedness for this Influenza pandemic.

Mr Boon Lim FRCOG Chair

Dr Tahir Mahmood FRCOG Vice President Standards.

14th March 2010.

---

[1] 'Row over swine flu advice to women wanting babies', *The Observer*, 20 July 2009 http://www.guardian.co.uk/world/2009/jul/19/row-swine-flu-women-babies
'Swine flu: mixed messages offered to pregnant women', *Sunday Telegraph*, 20 July 2009 http://www.telegraph.co.uk/health/swine-flu/5865564/Swine-flu-mixed-messages-offered-to-pregnant-women.html