Maternity - Influenza Guidelines for Maternity Services

Document Number GL2009_015
Publication date 31-Jul-2009
Functional Sub group Clinical/ Patient Services - Maternity
Clinical/ Patient Services - Baby and child
Summary These Guidelines provide direction to NSW maternity services and emergency departments regarding operational considerations with respect to the management of pregnant women, and neonates born to women, with suspected influenza or influenza-like illness (ILI).

Author Branch Primary Health and Community Partnerships
Branch contact Ann Kinnear 9424 5891
Applies to Area Health Services/Chief Executive Governed Statutory Health Corporation, Board Governed Statutory Health Corporations, Affiliated Health Organisations, Affiliated Health Organisations - Declared, Community Health Centres, Public Health Units, Public Hospitals

Audience All medical, nursing & midwifery staff, maternity services, emergency departments

Distributed to Public Health System, Divisions of General Practice, Government Medical Officers, Health Associations Unions, NSW Ambulance Service, Ministry of Health, Private Hospitals and Day Procedure Centres, Tertiary Education Institutes

Review date 31-Jul-2014
Policy Manual Patient Matters
File No. 09/4553
Status Rescinded
Rescinded By IB2016_058

Director-General
Maternity - Influenza Guidelines for Maternity Services

Document Number GL2009_015
Publication date 31-Jul-2009
Functional Sub group Clinical/ Patient Services - Maternity
Clinical/ Patient Services - Baby and child
Summary These Guidelines provide direction to NSW maternity services and emergency departments regarding operational considerations with respect to the management of pregnant women, and neonates born to women with suspected influenza or influenza-like illness (ILI).

Author Branch Primary Health and Community Partnerships
Branch contact Ann Kinnear 9424 5891
Applies to Area Health Services/Chief Executive Governed Statutory Health Corporation, Board Governed Statutory Health Corporations, Affiliated Health Organisations - Non Declared, Affiliated Health Organisations - Declared, Community Health Centres, Public Health Units, Public Hospitals
Audience All medical, nursing & midwifery staff, maternity services, emergency departments
Distributed to Public Health System, Divisions of General Practice, Government Medical Officers, Health Associations Unions, NSW Ambulance Service, NSW Department of Health, Private Hospitals and Day Procedure Centres, Tertiary Education Institutes
Review date 31-Jul-2014
Policy Manual Patient Matters
File No. 09/4553
Status Active
GUIDELINE SUMMARY

MATERNITY - INFLUENZA GUIDELINES FOR MATERNITY SERVICES

PURPOSE

These guidelines provide direction to NSW maternity services and emergency departments regarding operational considerations with respect to the management of pregnant women, and neonates born to women, with suspected influenza or influenza-like illness (ILI).

KEY PRINCIPLES

In addition to implementing strategies to minimise the transmission of influenza, maternity services need to also consider the higher risk status of pregnant women and specific measures to minimise the risk of infection from mother to baby. Strategies include prevention; passive and active screening; management of cases, visitors and accompanying persons; and communication with staff, visitors and patients. Of particular importance is the early treatment of pregnant women with influenza or ILI with anti-influenza medication (oseltamivir or zanamivir).

USE OF THE GUIDELINE

Maternity services should use the information in these guidelines as practical guidance to manage pregnant women with influenza or ILI and to minimise influenza transmission. These guidelines should augment Area Health Service or facility influenza plans.

REVISION HISTORY

<table>
<thead>
<tr>
<th>Version</th>
<th>Approved by</th>
<th>Amendment notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2009</td>
<td>DDG SD</td>
<td>New guideline</td>
</tr>
</tbody>
</table>

ASSOCIATED DOCUMENTS

1. Maternity – Influenza Guidelines for Maternity Services
### 1. INTRODUCTION

- **1.1 Purpose**
- **1.2 Background**
- **1.3 About this document**
- **1.4 Key definitions**
  - **1.4.1 Influenza-like illness (ILI)**
  - **1.4.2 Screening**
  - **1.4.3 Personal protective equipment (PPE)**

### 2. STRATEGIES

- **2.1 Prevention**
- **2.2 Screening of patients and visitors**
  - **2.2.1 Passive screening**
  - **2.2.2 Active screening**
  - **2.2.3 Inpatients**
- **2.3 Infection control measures**
  - **2.3.1 Staff**
  - **2.3.2 Emergency Departments**
  - **2.3.3 Ambulatory settings**
  - **2.3.4 Labour and birth**
  - **2.3.5 Postpartum**
- **2.4 Management of cases, visitors and accompanying persons**
- **2.5 Communication**

### 3. RESOURCES

### 4. LIST OF APPENDICES
1. INTRODUCTION

1.1 Purpose

These guidelines provide direction to NSW maternity services and emergency departments regarding operational considerations with respect to the management of pregnant women, and neonates born to women, with suspected influenza or influenza-like illness (ILI).

1.2 Background

People considered to be at higher risk of severe illness from influenza include:

- Pregnant women (particularly during the second and third trimesters). It should be noted that pregnant women may deteriorate rapidly.
- Aboriginal or Torres Strait Islander people
- Those with underlying medical conditions, such as:
  - morbid obesity
  - diabetes mellitus
  - chronic disease: lung disease (including asthma), cardiac disease, renal disease, neurological disease, liver disease, haemoglobinopathies
  - immunosuppression.

The levels of risk from influenza in different areas within hospitals vary according to the vulnerability of the patients; Intensive care units are considered very high risk; high dependency units, emergency departments, antenatal wards and clinics, and birthing units (delivery suites) are considered high risk; most other wards are considered moderate and lower risk.

Given the higher risk status of pregnant women, and the level of risk that exists in many areas of hospitals where pregnant women receive care, specific guidance for maternity services (including Early Pregnancy Assessment Services) is required. This guidance equally applies to other parts of the hospital where pregnant women may present particularly emergency departments.

1.3 About this document

Table 1 summarises the key strategies with respect to the management of pregnant women, and neonates born to women, with suspected influenza or influenza-like illness (ILI). More detailed information on each of these strategies can be found in the text.

Section 3 lists a number of resources for use by maternity services.

Table 1. Summary of strategies to manage pregnant women with influenza or ILI and to minimise influenza transmission

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention (see section 2.1)</td>
<td><strong>Avoid</strong> close contact with people who have influenza or influenza-like illness (ILI). <strong>Wash hands</strong> with soap and running water or use an alcohol-based hand rub. <strong>Vaccinate</strong> with influenza vaccine. Instruct <strong>household contacts</strong> on cough etiquette, good hand washing and avoidance of close contact with the pregnant woman.</td>
</tr>
<tr>
<td>Screening of patients and visitors (see section 2.2)</td>
<td><strong>Passive screening</strong> for influenza-like illness (ILI) of all maternity patients and visitors, using appropriate signage at hospital entrances and entrances to ‘very high risk’ and ‘high risk’ areas including intensive care units (including neonatal intensive care), high dependency units, emergency departments, antenatal wards and clinics, and birthing units. <strong>Active screening</strong> for ILI of all maternity patients and visitors in all maternity care areas including ambulatory settings (e.g. antenatal clinics, day assessment units, early pregnancy assessment services, maternal fetal medicine units or similar dedicated maternity ultrasound services), inpatient settings, birthing units (birth centre/delivery suite/labour ward), newborn nurseries and emergency departments. <strong>Monitor all inpatients for development of ILI</strong> by clinicians keeping a high index of suspicion. <strong>Clinicians to have a high index of suspicion for influenza</strong> in any patient presenting with a fever and/or respiratory symptoms with early treatment with anti-influenza medications recommended.</td>
</tr>
<tr>
<td>Infection control measures (see section 2.3)</td>
<td><strong>Isolate, or cohort</strong>, maternal influenza cases. With maternal influenza cases <strong>avoid mother-baby separation</strong> but ensure: • prevention strategies are in place to minimise the risk of influenza transmission to baby during close contact (e.g. breastfeeding, bathing, nappy changing etc) and • spatial separation (&gt; 1 metre) of mothers and babies at other times. <strong>Appropriate use of PPE</strong> for staff. <strong>Facilitate</strong> respiratory and hand hygiene. Ensure appropriate <strong>environmental cleaning</strong> of rooms and other settings where infectious patients have been.</td>
</tr>
<tr>
<td>Management of cases, visitors and accompanying persons (see section 2.4)</td>
<td><strong>Isolate, or cohort</strong>, maternal influenza cases. Educate influenza patients in <strong>respiratory and hand hygiene</strong>. <strong>Isolate cases</strong> for 7 days if not on anti-influenza medications, and 3 days if taking medication. <strong>Provide maternal and fetal surveillance</strong> for pregnant inpatients in other parts of the hospital. <strong>Limit visitors</strong> to all maternity care areas including ambulatory settings, inpatient settings, birthing units, and newborn nurseries.</td>
</tr>
<tr>
<td>Communication (see section 2.5)</td>
<td><strong>Communicate to all stakeholders</strong> (staff, patients and others). <strong>Use of standardised signage</strong>.</td>
</tr>
</tbody>
</table>
1.4 Key definitions

1.4.1 Influenza-like illness (ILI)

Influenza-like illness (ILI) can result from a number of respiratory pathogens, in addition to influenza A and B. Symptoms of ILI include fever, chills, cough, sore throat, tiredness, muscle aches, headache, rhinorrhoea (runny nose), and shortness of breath. The illness caused by H1N1 influenza 09 has a similar symptom and severity profile to that caused by known seasonal influenza viruses, although the average age of cases is lower.

The case definition for ILI used in this document is a person who has fever or feverishness (chills, shivering, night sweats, feeling hot, or alternately feeling hot and cold) and either a cough or sore throat.

1.4.2 Screening

For the purposes of this document, screening is the process for ascertaining whether or not a person has signs and symptoms of ILI.

Active screening is screening carried out by staff at first contact with women or their families either in person or by telephone. Staff are to ask women about fever (chills, shivering, night sweats, feeling hot, or alternately feeling hot and cold) and respiratory symptoms such as cough or sore throat.

Passive screening is self-screening from checklists (e.g. on posters) by patients and visitors at entrances to a health care facility or within units in the facility.

1.4.3 Personal protective equipment (PPE)

Appropriate use of personal protective equipment (PPE) will be important in protecting staff and non-influenza patients from infection. The Infection Control Guidelines for Health Care Facilities – Influenza (6 July 2009) outlines PPE requirements for staff and visitors.

2 STRATEGIES

2.1 Prevention

To avoid influenza, pregnant women should take sensible precautions including:

- avoiding close contact with people who have symptoms
- washing hands with soap and running water or using an alcohol based hand rub after contact with symptomatic people or their tissues
- getting an influenza vaccine if they will be in their 2nd or 3rd trimesters during the influenza season.
- encouraging symptomatic people in the household to keep at least 1 metre away and to follow cough etiquette and good hand washing.

There is no recommendation for well people to wear surgical masks, or to exclude themselves from activities. Risk of infection may, however, be further reduced by avoiding large, crowded gatherings during the influenza season.
2.2 Screening of patients and visitors

2.2.1 Passive screening
Passive screening for influenza-like illness (ILI) of all maternity patients and visitors will be by the use of appropriate signage at hospital entrances and entrances to ‘very high risk’ and ‘high risk’ areas including intensive care units (including neonatal intensive care) high dependency units, emergency departments, antenatal wards and clinics, and birthing units.

2.2.2 Active screening
Active screening for ILI of all maternity patients and visitors in all emergency departments and maternity care areas including ambulatory settings (e.g. antenatal clinics, day assessment units, early pregnancy assessment services, maternal fetal medicine units or similar dedicated maternity ultrasound services), inpatient settings, birthing units (birth centre/delivery suite/labour ward), and newborn nurseries will be carried out by staff at all points of patient (or visitor) contact. This includes at point of contact with staff after entry to ambulatory clinics or inpatient units within a facility or when telephone contact is made with women.

2.2.3 Inpatients
Clinicians should have a high index of suspicion for development of ILI symptoms in all inpatients. Pregnant inpatients with ILI symptoms should be managed according to Appendix 1, Managing Pregnant Women with Suspected Influenza – Guidance for Clinicians (23 July 2009).

Maternity services must ensure that pregnant inpatients cared for in other areas of the hospital receive appropriate maternal and fetal surveillance during their admission.

Local processes must be in place to ensure that the maternity service providers are informed of the admission of pregnant women to other areas of the hospital, in particular to high dependency or intensive care units.

The staffing of maternity services needs to take account of the presence of such women in other areas of the hospital.

2.3 Infection control measures
Infection control measures are designed to minimise the risk of transmission of influenza. The key components of infection control are:

- isolation or cohorting of influenza or suspected influenza cases
- use of surgical masks by symptomatic patients
- appropriate use of PPE by staff and visitors
- respiratory and hand hygiene for staff, patients and visitors, and
- spatial separation.
2.3.1 Staff

Appropriate use of PPE will be important in protecting staff and visitors from infection. The Infection Control Guidelines for Health Care Facilities – Influenza (6 July 2009) outlines PPE requirements for staff and visitors.

The screening and monitoring of staff for ILI is outlined in GL2009_013 Influenza – Minimising Transmission of Influenza in Healthcare Facilities During the PROTECT Phase.

Staff undertaking home-based visits should take measures to protect themselves during visits by following the guidelines for using PPE and hand/respiratory hygiene in The Infection Control Guidelines for Health Care Facilities – Influenza (6 July 2009).

2.3.2 Emergency Departments

Staff in emergency departments should ensure that patients (mother and baby) presenting to emergency departments are assessed by an obstetrician or a midwife if available, as per the facility protocol for treatment of pregnant women in the emergency department.

Should an obstetrician or midwife be unavailable, staff should seek advice from their designated networked maternity service for consultation and/or referral and transfer if appropriate.

2.3.3 Ambulatory settings

Women who report ILI should be instructed to:

- wash their hands with 60-90% alcohol-based hand rub (or soap and water if immediately available),
- put on a surgical mask,
- be seated immediately in an examination room, or if this is not possible be seated at least 1 metre away from others.

Women who report fever or respiratory symptoms should have early treatment with anti-influenza medications. Clinicians should not wait for testing to initiate treatment since these medications are most effective if started as early as possible after symptom onset. Local arrangements need to be established to facilitate the prescription and dispensing of anti-influenza medications. Pregnant women and their fetuses are at higher risk for severe complications from influenza, including from H1N1 influenza 09 infection. The benefits of treatment with oseltamivir or zanamivir outweigh the risks of infection to the mother and fetus and any theoretical risks of anti-influenza medication use. This is the case for all trimesters of pregnancy, but especially during the second and third trimesters. **Pregnancy is not a contraindication to treatment with anti-influenza medications.** Oseltamivir (Tamiflu®) is given orally, absorbed, and distributed systemically whereas zanamivir (Relenza®) is given by inhalation and is not well absorbed systemically. Oseltamivir and zanamivir treatment regimens recommended for pregnant women are the same as for other adults. Please note the state-wide standing order found at http://www.health.nsw.gov.au/policies/pd/2009/PD2009_045.html does not apply to pregnant or breastfeeding women. Pregnant or breastfeeding women require a medical assessment prior to the administration of anti-influenza medications.
The incubation period for H1N1 influenza 09 is usually 3 to 4 days. If anti-influenza medications are not used, women with ILI should be considered potentially infectious from one day before, to seven days following, illness onset, provided their fever has resolved. If anti-influenza medications are used, the period of infectiousness is reduced to 72 hours after commencement of treatment, provided their fever has resolved.

During the influenza season consideration needs to be given to the number of antenatal visits that pregnant women will need. Women of normal risk should have a visit schedule such as that recommended in the NICE Guidelines for Antenatal Care (7 to 10 visits across all care providers). Women with identified risk factors should have standard antenatal care provision with the above procedures in place.

2.3.4 Labour and birth

Active screening is important in women around the time of birth or when pregnancy problems develop. Women who report ILI should be seen early as there is a need for both maternal and fetal assessment and early initiation of anti-influenza treatment.

At presentation to the birthing unit or emergency department women who report ILI should be instructed to:

- wash their hands with 60-90% alcohol-based hand rub (or soap and water if immediately available),
- put on a surgical mask, and
- be seated immediately in an assessment or birthing room, or if this is not possible be seated at least 1 metre away from others.

Women not in labour who report ILI should have early treatment with anti-influenza medication. Clinicians should not wait for testing to initiate treatment since these medications are most effective if started as early as possible, preferably within 48 hours of symptom onset.

Women in active labour who report ILI should have early treatment with anti-influenza medications. The inhaled anti-influenza medication zanamivir (Relenza®) may be favoured as oral medications are variably absorbed during labour. Again, clinicians should not wait for testing to initiate treatment since these medications are most effective if started as early as possible after the illness onset. Symptomatic women are not required to wear a mask during their labour and birth. Instead, other staff and visitors should wear appropriate PPE.

Staff should follow existing infection control guidelines for the cleaning/disposal of nitrous oxide masks, mouthpieces and tubing.

With respect to the timing and mode of delivery, proven or suspected infection with influenza is not in itself an indication for delivery. As with other medical complications of pregnancy the maternal and fetal status should be accurately assessed prior to any clinical decision regarding the timing and mode of birth. Although the epidemiology of the illness among pregnant women is not fully understood there is clearly a spectrum of illness severity and most pregnant women will not have the severe form of the disease.
With respect to women with ILI maternity services should avoid routine mother-baby separation. However, maternity services should ensure:

- **prevention** strategies are in place to minimise the risk of influenza transmission to baby during close contact (e.g. breastfeeding, bathing, nappy changing etc). In this context this includes hand and respiratory hygiene in addition to the wearing of a surgical mask, and

- **spatial separation** (> 1 metre) of mothers and babies at other times.

Babies born to women with ILI undergoing caesarean section (regardless of indication) and who require admission to a newborn nursery and who have not had close unprotected respiratory contact with their mothers do not require isolation.

Babies born vaginally to women with ILI and who require admission to a newborn nursery and who have not had close unprotected respiratory contact with their mothers do not require isolation.

Babies born vaginally or by caesarean section to women with ILI and who require admission to a newborn nursery and who have had close unprotected respiratory contact with their mothers should be isolated or cohort in the newborn nursery.

### 2.3.5 Postpartum

Once again, with respect to women with ILI, maternity services should avoid routine mother-baby separation. However, maternity services should ensure:

- **prevention** strategies are in place to minimise the risk of influenza transmission to baby during close contact (e.g. breastfeeding, bathing, nappy changing etc). In this context this includes hand and respiratory hygiene in addition to the wearing of a surgical mask, and

- **spatial separation** (> 1 metre) of mothers and babies at other times.

Breastfeeding is encouraged as there is a theoretical advantage to the neonate of passive transmission of antibodies to influenza virus from an exposed or infected mother. Women who are breastfeeding should continue to breastfeed while receiving anti-influenza medication. Although the risk for H1N1 influenza 09 transmission through breast milk is unknown, reports of transmission of seasonal influenza are rare.

Babies of mothers with ILI who are receiving breast milk substitutes (artificial formula) should ideally be fed by another family member. Where this is not possible, mothers should ensure that the appropriate prevention strategies are used.

In order to minimise the risk of transmission, co-sleeping is strongly discouraged. Spatial separation should be maintained except for breast feeding, bathing and nappy changes etc.

It is recommended that neonates of mothers with ILI should be observed closely for signs of respiratory illness.

There are no changes recommended with respect to early discharge, midwifery or other community support services. Women who require inpatient care should not be prematurely discharged simply because of concern regarding ILI. Likewise women who are otherwise fit for discharge may complete their anti-influenza treatment at home. Women going home with an ILI should receive midwifery support at home in the early postnatal period (up to 14 days).
2.4 Management of cases, visitors and accompanying persons

In general, women with ILI should be considered potentially infectious from one day before, to seven days following, illness onset, providing their fever has resolved. Secondary (often bacterial) infection should be considered in women who continue to be febrile longer than seven days after illness onset, or who deteriorate or develop new fever after initial improvement.

If a woman has not been treated with anti-influenza medications, isolation precautions should be continued for seven days from symptom onset or until the resolution of fever, whichever is longer.

Isolation precautions may be discontinued when a woman has received 72 hours of treatment with anti-influenza medication, provided the fever has resolved.

In addition to the infection control and other measures outlined in section 2.3, GL2009_013 Influenza – Minimising Transmission of Influenza in Healthcare Facilities during the PROTECT Phase includes more detailed strategies for managing cases, people accompanying them, and their visitors.

It is highly recommended that maternity services limit visitors (and visiting times) to all maternity care areas including ambulatory settings, inpatient settings, birthing units, and newborn nurseries during the influenza season. In particular, women should be advised that wherever possible they should avoid bringing children for antenatal visits. Clearly the individual needs of women and their families should be taken into consideration when this advice is provided. Visits to women in isolation should be restricted to those persons who are necessary for the woman’s emotional wellbeing and care. The babies of women in isolation should not be taken out of the room by visitors.

2.5 Communication

Maternity services should ensure that strategies are in place for effectively communicating with staff, patients, visitors and accompanying persons. The standardised signage and pictograms available to healthcare facilities should be used by all maternity services.
3 RESOURCES

http://www.emergency.health.nsw.gov.au/swineflu/index.asp provides influenza information for both health professionals and women and includes various links, fact sheets and videos of particular relevance to maternity services and pregnant women.


4 LIST OF APPENDICES

1. Managing pregnant women with suspected influenza – Guidance for clinicians
APPENDIX 1

MANAGING PREGNANT WOMEN WITH SUSPECTED INFLUENZA
GUIDANCE FOR CLINICIANS
Managing pregnant women with suspected influenza
Guidance for clinicians
23 July 09

Pregnant women have a higher risk of severe disease than other women following infection with influenza, whether seasonal or H1N1 influenza 09. These guidelines provide recommendations for managing pregnant women presenting with an influenza-like illness (ILI).

Prevention
To avoid influenza, pregnant women should take sensible precautions including:
- Avoid close contact with people who have symptoms, if possible
- Wash hands with soap and running water or use an alcohol based hand rub after contact with symptomatic people or their secretions e.g. on used tissues
- Get immunised against influenza if they will be in their 2nd or 3rd trimesters during winter
- Encourage symptomatic people in the household to keep at least 1 metre away and follow cough etiquette and good hand hygiene
- Avoid large, crowded gatherings during the influenza season.

There is no recommendation for well people to wear surgical masks, or to exclude themselves from regular activities.

Prophylaxis
Antiviral prophylaxis is not generally recommended for pregnant women, except in specific circumstances. For example, it may be considered in a pregnant woman who has had close contact with a patient with laboratory proven H1N1 influenza 09, especially in the second or third trimester and in the presence of other co-morbidities.

Influenza-like illness
For the purpose of these guidelines, ILI is defined as a history of a fever (or temperature >38.0°C), and either a cough or sore throat. Pregnant women should be encouraged to present early if they develop an ILI, or if they develop any respiratory symptoms after close contact with a person who has an ILI. They should be assessed, diagnosed and managed on clinical grounds, noting that there are several differential diagnoses for people presenting with an ILI. Influenza typically involves other symptoms such as fatigue, headache, muscle aches and pains.

Testing
Where influenza is diagnosed on clinical grounds, laboratory testing for influenza is not recommended except where it will change clinical management or if the woman requires hospital admission with possible influenza. If the patient presents with mild symptoms following close contact with a person with an ILI, testing may be considered to confirm the diagnosis. Where a test is required, the request form should clearly state the reason for the test and the laboratory should be contacted to discuss prioritisation of the test.

Treatment
Treatment of patients with ILI should not be delayed while awaiting test results. Treatment with anti-influenza medicine (either oseltamivir [Tamiflu] or zanamivir [Relenza]) may be offered to pregnant woman at any stage of pregnancy. Although both drugs are classified as B1 (limited data indicating safety in pregnancy), use in pregnant women to date (mostly in second and third trimester) has not been associated with adverse fetal outcomes. Experience of anti-influenza medication use in the first trimester of pregnancy remains very limited, so a careful discussion of the potential risks and benefits is essential before prescribing such agents. Experts have differing views as to the best drug to use in pregnancy: oseltamivir is a capsule, has a systemic effect but causes nausea and vomiting in some patients; zanamivir is inhaled, has a direct effect on the target organ (the lung) but can cause bronchospasm in some patients.
Considerations in the management of influenza in each trimester

**First trimester**
- In the first trimester, the concern is largely about the effect the mother’s fever may have on the developing fetus, including miscarriage.
- Symptomatic treatment with paracetamol is recommended to reduce fever.
- Treatment with anti-influenza medicine should be discussed with the mother, taking into account other conditions that may increase her risk of severe disease.

**Second and third trimester**
- In the second and third trimesters, the concern is largely for severity of illness in the mother, as well as the potential effects of the mother’s fever on the developing fetus.
- Symptomatic treatment with paracetamol is recommended to reduce fever.
- Assessment of maternal and fetal wellbeing is recommended at every presentation.
- Treatment with anti-influenza medicine is strongly recommended to reduce the severity of disease in the mother.

**Around the time of birth**
- Around the time of birth, the concern is about both the severity of illness in the mother and the risk of transmission to the baby.
- Symptomatic treatment with paracetamol is recommended to reduce fever.
- Treatment with anti-influenza medicine of the mother is strongly recommended to reduce the severity of disease.
- While the baby is <3 months old, treatment of the mother is also recommended to reduce the risk of transmission to the baby.
- The mother should not be asked to wear a mask during labour and birth, but others in the room should follow infection control guidelines.
- There is usually no advantage in expediting the birth of the baby.

**Minimising the risk of infection from mother to baby**
- The spectrum of disease of H1N1 influenza in newborns is unclear.
- Breast feeding should be strongly encouraged.
- Sensible efforts should be made to reduce the likelihood the baby will be infected, while minimising the effect on the mother-baby relationship. These include:
  - treating the mother to reduce the risk of transmission (the mother is considered non-infectious after 72 hours of treatment with anti-influenza medicine)
  - the mother and baby should sleep at least 1 metre apart, in the same room (at least while in hospital), in separate beds
  - when breast feeding, bathing, caring for, cuddling, or otherwise being within 1 metre of the baby, the mother should:
    - wear a surgical mask
    - wash her hands thoroughly with soap and water before interacting with the baby
  - the mother should avoid coughing and practice cough etiquette near the baby
  - although these measures can be ceased when the mother is no longer infectious, continued good hygiene should be encouraged at all times
  - these measures should apply to any carer or family member with influenza
- Mothers requiring hospital care should not be prematurely discharged because they have influenza.
- If discharged while still infectious, mothers should be provided with a sufficient supply of surgical masks to take home.

Prophylaxis is not recommended for the baby. Should the baby develop symptoms, the baby should be isolated from other babies, assessed urgently by a paediatrician, and if influenza is diagnosed, considered for treatment with anti-influenza medicine.