Seasonal Influenza in Pregnancy and Puerperium Guideline (GL1086)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>2nd February 2018</td>
</tr>
</tbody>
</table>

Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>05/01/2018</td>
<td>Gill Valentine, Director of Midwifery</td>
<td>Updated PHE Guidance</td>
</tr>
</tbody>
</table>

To be read in conjunction with Trust protocols below:

- CG077 - Infection Prevention and Control Reporting and Responsibilities Protocol
- CG177 - Infection Surveillance Protocol

Author: Gill Valentine
Date: February 2018
Job Title: Director of Midwifery
Review Date: February 2020
Policy Lead: Group Director Urgent Care
Version: 1.0 ratified 2/2/18
Mat CG mtg
Location: Policy hub/ Clinical/ Maternity / Medical conditions & complications / GL1086

This document is valid only on date last printed
Introduction
For most healthy people, influenza is a self-limiting disease. However, in pregnant women, the elderly and immunosuppressed, more severe illness is possible. Surveillance on influenza is undertaken by Public Health England which alerts the NHS when the virus is circulating widely in the community.

1. Pregnancy and Influenza
Pregnant women (including up to 2 weeks postpartum) are considered a high risk group for severe influenza infection. The greatest risk is of primary viral chest infection or secondary bacterial infection, which is more common in the second and third trimesters.

Increased severity from influenza infection is associated with pre-existing asthma, maternal smoking, diabetes, immunosuppression and obesity.

Pregnant women admitted to hospital with H1N1 (2009) infection were three times more likely to deliver pre-term and their babies were five times more likely to be stillborn or die in the first week of life. Pregnant women should avoid the risk of severe febrile episodes at any stage of pregnancy. It is important to remember that flu can cause other types of illness at any stage, including diarrhoea and/or vomiting, muscle and joint inflammation and, rarely, meningitis.

2. Definitions

3.1 Uncomplicated influenza or influenza like illness (ILI):
Influenza presenting with fever, coryza, generalised symptoms (headache, malaise, myalgia, arthralgia) and sometimes gastrointestinal (GI) symptoms, but without any features of complicated influenza.

3.2 Complicated influenza:
Influenza requiring hospital admission and/or with symptoms and signs of lower respiratory tract infection (hypoxemia, dyspnoea, lung infiltrate), central nervous system involvement and/or a significant exacerbation of an underlying medical condition.

The usual incubation period is 2 - 3 days (range 1 - 7 days). Patients with probable influenza infection (ILI) should receive antiviral treatment (see PHE guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza Version 8.0, September 2017) and be isolated for 5 days from onset of illness or until symptoms of ILI (not complications) have subsided, whichever is longest.
Patients with negative influenza tests should stop antivirals and may be de-isolated unless there are concerns about other infectious respiratory conditions.

3. Management of Influenza in Pregnancy

This is for confirmed cases: if necessary, point of care testing can be performed in the Emergency Dept. for pregnant / parturient / early postnatal women in hospital. Please contact them for the current instruction for accessing testing.

4.1 With uncomplicated influenza

Women with uncomplicated influenza can be managed in the community. They should be advised of the symptoms of complicated influenza and told to seek medical advice should their condition worsen.

Control of fever using paracetamol is the most important aspect of treatment in pregnant women. Tepid sponging and use of fans are helpful.

Women should be advised to drink plenty of fluids and most will recover in 4 - 5 days.

When influenza is circulating, commence antiviral therapy as soon as possible. Antiviral drugs are not a cure, but will shorten the duration of illness and reduce the risk of complications if started promptly.

When influenza is circulating, all pregnant women should be started on oseltamivir (Tamiflu®) 75 mg 12 hourly PO for five days based on clinical grounds, to shorten duration of illness and reduce risks of complications.

Treatment should be started as soon as possible, ideally within 48 hours of onset. There is evidence that treatment may reduce the risk of severe illness when started up to five days after onset but initiating treatment after 48 hours is unlicensed and clinical judgement should be exercised.

If suspected or confirmed oseltamivir resistant influenza, use Zanamivir inhaler 10 mg 12 hourly for five days.

4.2 With complicated influenza

All pregnant women with complicated influenza should receive treatment in hospital. Treatment should be started as early as possible but should always be given, no matter how long after the illness. Do not wait for laboratory confirmation.

All inpatients suspected to have influenza, should have Nasopharyngeal / Throat swab in viral transport medium (Green Top)
4. Management of Labour and Delivery

- Clinicians may be faced with particular situations where a pregnant woman develops laboratory confirmed seasonal influenza infection shortly before onset of labour. Questions may then arise about recommendations for the use of antivirals in this situation.

- Pregnant women experience an increased risk of developing complicated influenza and associated severe outcomes, such as ICU admission and death. Therefore, antiviral treatment of a pregnant woman with seasonal influenza should be strongly considered in line with the recommendations featured in the Public Health guidance document. ([https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648758/PHE_guidance_antivirals_influenza_201718_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648758/PHE_guidance_antivirals_influenza_201718_FINAL.pdf))

- Women with acute influenza illness in labour need close monitoring. Barrier nursing, including the use Personal Protective Equipment (PPE) i.e. FFP3 Masks (or “Typhoon” hood), Aprons, Gloves and goggles, should be used. Adherence to infection control precautions as per Trust Policy must be followed.

- Maintain Modified Early Obstetric Warning Score (MEOWS) chart and half hourly observation of temperature, pulse and blood pressure, with regular monitoring of oxygen saturation using pulse oximeter.

- Strict fluid balance should be maintained to ensure adequate hydration. Good control of temperature using antipyretics.

- Involve anaesthetic team and ensure anaesthetic review of these patients and airway assessment. Alert the paediatric team and obstetric consultant on-call.

- Continuous electronic fetal monitoring in labour.

- Inform medical registrar of the patient and seek their advice if any concerns.

- Mode of delivery should be individualised, based on maternal and fetal condition.

5. Measures to reduce transmission from mother to baby

Public Health England have provided the following advice:

“In addition to the recommendation for antiviral treatment of pregnant mothers, there are three options described below that can be discussed with the parents so they can make an informed decision regarding reducing transmission from mother to baby:”
1. Prescribe Oseltamivir (Tamiflu) oral suspension for post-exposure prophylaxis in the neonate, as an off-label indication. Mothers and infants need not separated unless the neonate is premature or has other co-morbidities or the clinician’s risk assessment indicates that the benefit of separation is greater than the risks to the baby. The baby will require careful monitoring for symptoms of influenza (4 hourly routine neonatal observations of respiratory rate, temperature and heart rate for 5 days). The baby can remain with mother on the postnatal wards with the mother being cared for in a single room. If the mother is discharged home before 5 days, the baby will require prophylaxis for a total of 10 days.

2. Physical separation of the symptomatic mother and asymptomatic neonate until 5 days after the onset of symptoms. This would need to be discussed with the Consultant neonatologist to risk assess the most appropriate location for the baby to be cared for (Buscot/General Paeds ward/Home).

3. No prophylaxis for the neonate and no separation of neonate and mother. This will require careful monitoring for symptoms of influenza (4 hourly routine neonatal observations of respiratory rate, temperature and heart rate for 5 days). Mother should wear face mask on and practice hand hygiene before each feeding or other close contact with her newborn for 7 days after maternal illness onset.

If the mother and baby are to be discharged home staff should have a discussion in advance with the parents about recognising a well-baby and to be alert for any signs or symptoms of respiratory infection so that early referral and appropriate treatment can be started.

Parents **MUST** be made aware that newborn babies may become very sick if they contract influenza, and a small proportion are likely to require ventilatory and multi-organ support.

6. **Breastfeeding**

Breastfeeding is important for providing maximum protection to the baby against several infections via transfer of maternal antibodies.

Breastfeeding is **not contraindicated**, and so it can continue while the mother is receiving antiviral treatment or prophylaxis.

Demand feeding should be encouraged but, where possible, additional formula feed should not be used so that the infant receives as much maternal antibody as possible.

If a mother is too ill to breastfeed, feeding expressed milk should be considered.

Parents who choose to separate the baby from its mother **MUST** be offered support to express feeds for their baby if the mother wishes to and is well enough to do so.
7. Postnatal Period

Advise women to limit visiting by people who have influenza or flu-like symptoms for the first two months after delivery. If a member of family has influenza, they should take antiviral medication and avoid contact with the baby (less than 1 metre) until they have recovered.

8. References;


Acknowledgement to Buckinghamshire Healthcare NHS Trust