Aneurin Bevan University Health Board

Management of spontaneous preterm pre-labour rupture of membranes <34 weeks gestation (PPROM)

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

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Contents:

Introduction

A woman is described as having PPROM if she has ruptured membranes before 37+0 weeks of pregnancy but is not in established labour. [1]
Preterm pre-labour rupture of membranes PPROM is associated with 40% of preterm deliveries and complicates 2% of deliveries and can result in significant morbidity and mortality[2]. PPROM is associated with prematurity, sepsis and pulmonary hypoplasia which result in neonatal death. PPROM is associated with higher risk of chorioaminitis which can cause morbidity to women.

Policy Statement

This guidance has been developed to support standard 2.1 of the "Standard for Health Services Wales"[3].

Aims

To assist clinicians to diagnose, investigate and manage preterm pre-labour rupture of membranes (PPROM). Thus reducing the associated morbidity and mortality to both women and neonates.

Objectives

Best management recommendation in order to reduce morbidity and mortality associated with PPROM.

Scope

- This document is to be utilised by midwifery and obstetric teams within the Maternity Unit in Aneurin Bevan Health Board.

Roles and Responsibilities

- Medical and Midwifery staff will be required to implement this guideline.

Key of abbreviations

PPROM	Prolonged premature rupture of membranes
CTG	Cardiotography
FBC	Full blood count
CRP	C-reactive protein
HVS	High vaginal swab
USS	Ultrasound sonography
SCBU	Special care baby unit
DAU	Day assessment unit

- **Diagnosis of PPROM**
  - Best achieved by maternal history followed by a sterile speculum.
  - Digital vaginal examination to be avoided unless strong clinical suspicion of labour.
  - If pooling of amniotic fluid is observed, a diagnosis of P-PROM can be made. Diagnostic tests are not required.
  - If pooling of amniotic fluid is not observed, consider performing an insulin-like growth factor binding protein-1 test or placental alpha-micoglobulin-1 test of vaginal fluid such as ROM plus + test.
  - Do not make a diagnosis of PPROM with diagnostic tests in isolation, clinical history and examination should be taken into account.
  - Do not perform diagnostic tests for P-PROM if labour becomes established in a woman reporting symptoms suggestive of P-PROM.
  - If diagnostic tests are positive, do not use the test results alone to decide what care to offer the woman. Take into account her clinical condition, her medical and pregnancy history and gestation age. Then either:
    - Offer care consistent with the woman having PPROM, or
    - Re-evaluate the woman's diagnostic status at a later point.
  - If diagnostic tests are negative and no amniotic fluid is observed, then explain PPROM is unlikely but that she should return if she has further symptoms suggestive of PPROM or preterm labour.

- **Antenatal tests**
  - Women should have baseline observations taken on admission (BP, temperature, pulse, respiratory rate) and CTG
  - Clinical signs of chorioamnitis must be excluded, signs and symptoms may include maternal pyrexia, tachycardia, leucocytosis, uterine tenderness, offensive vaginal discharge and fetal tachycardia
  - Baseline FBC and CRP
  - When identifying infection, the above tests should be used in combination and not isolation.
  - Discussion with labour ward and SCBU if imminent labour/chorioamnitis is suspected for further management plan

- **Inpatient Management**
  - Admit for up to 48 hours for observations
  - 8 hourly observations
  - Commence Erythromycin 250mg QDS orally for 10 days
  - Oral penicillin can be used as an alternative where Erythromycin is contraindicated.

- **Maternal Corticosteroids**
  - For women between 23+0 and 23+6 weeks, discuss with the woman the use of maternal corticosteroids in the context of her individual circumstances.
  - Consider maternal corticosteroids for women between 24+0 and 25+6 weeks.
  - Offer maternal corticosteroids to women between 26+0 and 33+6 weeks.
  - Consider maternal corticosteroids for women between 34+0 and 35+6 weeks.
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  - Administer steroid (Betamethasone 12mg x 2 doses over 24 hours OR Dexamethasone 6mg x 4 doses over 48 hours)
  - If imminent labour is suspected, tocolysis may be given in order to administer steroid course or for intra uterine transfer.
  - Discussion by neonatologist with patient to discuss prognosis.

- **Outpatient Monitoring**
  - Discharge should be by registrar or consultant after initial assessment and steroids complete.
  - Consider weekly FBC, CRP, HVS (may not be indicative of chorioamnionitis due to low sensitivity of these tests)
  - Weekly visit to DAU for clinical assessment of signs/symptoms of infection. USS for growth 2 weekly, liquor volume and dopplers weekly.
  - Delivery to be considered after 34 weeks gestation after discussion with the consultant.
  - If expectant management considered beyond 34 weeks of gestation, women should be informed of increased risk of chorioamnitis and the decreased risk of respiratory problems of the neonate.

Training

- Medical staff and midwifery advanced clinical practitioners assessing women with PPROM should be appropriately trained to perform speculum examinations
- USS should be performed by a competent USS trained operator
- Training needs will be identified through appraisal and clinical supervision.

Implementation

- This document will be available on the intranet for access by medical and midwifery staff

Further Information Clinical Documents

Green top guidelines No 44-Preterm prelabour rupture of membranes

Standards for Health Services Wales

http://www.wales.nhs.uk/governance-emanual/theme-2-safe-care-criteria

Equality

No. Equality is not affected by this guideline

Environmental Impact

- N/A

Audit

Auditable topics:
Proportion of women with PPROM receiving Erythromycin for 10 days
Proportion of women receiving complete course of antenatal corticosteroids
Proportion of women being delivered at 34 weeks
Proportion of women with PPROM delivered after 34 weeks of gestation with documented advice of increased risk of chorioamnitis and decreased risk of neonatal respiratory problems

Review

3 years

References

1 NICE guideline NG 25. Preterm labour and birth. November 2015. https://www.nice.org.uk/guidance/ng25/chapter/recommendations#preterm-prelabour-rupture-of-membranes-pprom

2 Green-top guidelines No. 44 Preterm Pre-labour Rupture of membranes Nov 2006/minor amendment Oct 2010. *https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_7.pdf*

3 Standards for Health Services in Wales, Doing well, doing Better Dec 2012. *http://www.wales.nhs.uk/governance-emanual/theme-2-safe-care-criteria*