Clinical Guideline for the Diagnosis & Management of Preterm Prelabour Rupture of Membranes (*PPROM)* (<37 weeks gestation)

Document Control:

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Version History:

Version	Date	Author	Reason/Change
V6.0	June 2020	Vennila Palaniappan	Change in brand of swab used.
V7.0	January 2023	Thomas Curtis, Demi Blair	Due for review; compliance with new guideline template; reflects changes in RCOG guidance on antenatal corticosteroids (published February 2022). Document transferred to new Trust template
V8.0	August 2023	Joely Simeoni, Practice Development Midwife	Update to postnatal neonatal care

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
Maternity Guideline for the Management of Preterm Pre-labour Rupture of the Membranes (Under 37 weeks)	January 2023

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:
The content of this guideline was discussed and reviewed in the multidisciplinary maternity clinical guidelines meeting.

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to Norfolk & Norwich University Hospitals; please refer to both national guidance and the local Trust's procedural documents for further guidance, as noted in Section 4.

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Clinical Guideline for the Diagnosis & Management of Preterm Prelabour Rupture of Membranes (*PPROM*) (<37 weeks gestation)

1. Introduction

1.1. Rationale

PPROM complicates up to 3% of pregnancies and is associated with 30–40% of preterm births. The median latency to delivery after PPROM is seven days but this tends to shorten as the gestational age at PPROM advances.

Both NICE and the RCOG offer specific, consistent guidance on the optimal methods of assessment and management of suspected PPROM.

1.2. Objective

The objective of the clinical guideline is to:

- Standardise care of women presenting with PPROM in line with national recommendations and the latest evidence.
- Offer specific guidance on the diagnostic and management processes to be followed for women presenting with suspected PPROM.

1.3. Scope

This clinical guideline covers the diagnosis and management of preterm prelabour rupture of membranes and is applicable to all maternity staff.

If preterm labour is suspected, with or without membrane rupture, this guideline is not applicable and either the *Trust Guideline for the Management of Babies Born Extremely Preterm (at less than 26 weeks' gestation)*: Trustdocs ID 7508 or *Trust Guideline for the Management of Preterm Birth (26^{+0}-36^{+6} weeks' gestation)*: Trustdocs ID 875 should be followed depending on gestation.

If membrane rupture is suspected from 37^{+0} weeks' gestation, this guideline is not applicable and the *Clinical Guideline on: The Management of Pre-Labour Rupture of Membranes Over 37 weeks:* Trustdocs ID 872 should be followed.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
AmniSure	Test for placental alpha microglobulin-1, which serves as a diagnostic test for the presence of membrane rupture.
Prelabour	Occurring prior to the onset of active labour.
Preterm	Occurring prior to 37^{+0} weeks' gestation.
PPROM	Preterm prelabour rupture of membranes.
Rupture of membranes	The spontaneous rupture of the amniotic membrane, colloquially known as "waters breaking".

2. Responsibilities

List each key stakeholder using the job title with information as to their role and responsibilities in relation to this procedural document.

- Chair, Maternity Guidelines Committee

- Chief of Service, Maternity

3. Service to be delivered

3.1. Assessment of a woman presenting with a history suspicious for preterm pre-labour rupture of membranes

1. Confirm diagnosis by sterile speculum examination and send HVS. If liquor is not seen, perform an AmniSure test (see *Trust Guideline for the Use of Fetal Fibronectin and AmniSure*: Trustdocs ID 8893). Do not perform an AmniSure test if liquor is seen. Do not perform a digital vaginal examination.
    a. AmniSure can be used in the presence of semen, minimal amounts of blood, vaginal infection, after intercourse, after a vaginal examination, and in the presence of a minimal amount of water-based lubricant. AmniSure is contraindicated in active vaginal bleeding: this may affect the result and is alone an indication for admission.
    b. If there is no liquor seen on speculum examination and an AmniSure test is negative, the patient may be discharged home if well, with advice to wear a pad, watch for symptoms of membrane rupture and reattend for repeat assessment if she continues to notice vaginal loss.
2. Exclude clinical evidence of current infection (temperature, pulse rate, uterine tenderness, vaginal discharge, fetal tachycardia).
3. Assess fetal well-being. CTG should be conducted from 26 weeks gestation.
4. Confirm fetal presentation by V-scan.
5. Obtain blood samples – minimum of FBC and CRP; consider addition of blood group and save.
6. Inform NICU and ensure that the senior resident obstetrician is aware.
7. Women with PPROM should have an opportunity to meet an appropriately qualified member of the neonatal service to discuss the potential care their baby may require.

3.2. Initial inpatient management

3.2.1. Contraindications to conservative management

1. Evidence of maternal or fetal infection.
2. Evidence of fetal compromise demonstrated on CTG or ultrasound scan.

In the presence of either of the above contraindications, the senior resident obstetrician should be informed, as both maternal resuscitation and/or delivery may be indicated, with care individualised as appropriate.

In the presence of systemic infection, the potential beneficial effects of antenatal corticosteroids for the baby in the context of preterm birth should be weighed against the potential for exacerbation of the infection. Birth should not be delayed for the administration of antenatal corticosteroids if the indication for delivery is impacting on the health of the mother or her baby.

3.2.2. Procedure for inpatient conservative management

1. Admit for observation for 24-48 hours.
2. Offer dexamethasone 12mg IM (or betamethasone 12mg IM) for two doses 24 hours apart up to 34^{+6} weeks' gestation.
3. Prescribe erythromycin 250mg QDS for ten days or until established labour, whichever is sooner (unless genuinely allergic, in which case consider amoxicillin 500mg QDS).
4. Do not use tocolysis as it is shown to increase the risk of chorioamnionitis.
5. Women should be given a copy of the patient information leaflet *Pre-Term Pre-Labour Rupture of Membranes (Waters Breaking)*: Trustdocs ID 14218.
6. Offer emotional support to couples affected by the condition of PPROM, due to high risk of developing post-traumatic stress disorder.

3.3. Outpatient conservative management following inpatient admission

3.3.1. Procedure for outpatient conservative management

1. Temperature measurement four times daily. Thermometers will be given to patients in "PPROM packs" to be distributed from Cley ward.
2. Weekly assessment with blood tests (FBC and CRP) and CTG.
3. Delivery will usually be timed at 37 weeks gestation unless indicated sooner. If GBS colonisation is found, induction of labour is recommended from 34 weeks, depending on the clinical assessment and patient preferences.
4. Women should be advised to contact the hospital urgently if they notice symptoms of infection (fever, malaise, malodour, abnormal vaginal discharge or reduced fetal activity) or any temperature above 37.0°C (this temperature, as opposed to 37.5°C, is recommended to ensure patients contact a healthcare professional early).

3.4. Postnatal Care

All midwives must complete the postnatal new-born risk assessment in the neonatal Kardex to determine which observation pathway to follow. Please see "The Management of Neonatal Sepsis Risk and Observation Pathways in the Postnatal Period" for details – Trust Doc ID 9998

4. Related Documents

1. Antenatal corticosteroids to reduce neonatal morbidity and mortality: RCOG green-top guideline No. 74 (February 2022)
2. Care of women presenting with suspected preterm prelabour rupture of membranes from 24+0 weeks of gestation: RCOG green-top guideline No. 73 (June 2019)
3. Preterm labour and birth: NICE guideline [NG25] (November 2015, updated June 2022)
4. Clinical Guideline on: The Management of Pre-Labour Rupture of Membranes Over 37 weeks: (Trust Docs ID 872)

5. Trust Guideline for the Management of Babies Born Extremely Preterm (at less than 26 weeks' gestation): (Trust Docs ID 7508)
6. Trust Guideline for the Management of Preterm Birth (26^{+0}-36^{+6} weeks' gestation): (Trust Docs ID 875)
7. Trust Guideline for the Use of Fetal Fibronectin and AmniSure: (Trust Docs ID 8893)
8. Management of Neonatal Sepsis Risk and Observation Pathways in the Postnatal Period (Trust Doc ID 9998)

5. References

1. Stock SJ, Thomson AJ, Papworth S; the Royal College of Obstetricians, Gynaecologists. Antenatal corticosteroids to reduce neonatal morbidity and mortality. BJOG 2022; 129: e35-60
2. Thomson AJ, on behalf of the Royal College of Obstetricians and Gynaecologists. Care of women presenting with suspected preterm prelabour rupture of membranes from 24+0 weeks of gestation. BJOG 2019; 126: e152–166

6. Monitoring Compliance

The Maternity Services are committed to the philosophy of clinical audit, as part of its Clinical Governance programme. The standards contained in this clinical guideline will be subject to continuous audit, with multidisciplinary review of the audit results at one of the monthly departmental Clinic Governance meetings. The results will also be summarised, and a list of recommendations formed into an action plan, with a commitment to re-audit within three years, resources permitting.

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Initial assessment TO include maternal observations, clinical examination, CTG, V-scan and blood tests (FBC and CRP).	Documentation review	Perinatal Optimisation Team	Maternity Clinical Governance	Annually
PPROM up to 34+6 weeks gestation should be offered antenatal corticosteroids.	Documentation review	Perinatal Optimisation Team	Maternity Clinical Governance	Annually
Oral antibiotic therapy for ten days or until the onset of labour.	Documentation review	Perinatal Optimisation Team	Maternity Clinical Governance	Annually
Neonatal discussion prior to delivery re neonatal care	Documentation review	Perinatal Optimisation Team	Maternity Clinical Governance	Annually

The audit results are to be discussed at relevant governance meetings (maternity clinical governance) to review the results and recommendations for further action.

Then sent to Maternity Clinical Governance who will ensure that the actions and recommendations are suitable and sufficient.

7. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Women & Children's	**Department**	Maternity
Name of person completing form	Thomas Curtis	**Date**	8th January 2023

Equality Area	**Potential Negative Impact**	**Impact Positive Impact**	**Which groups are affected?**	**Full Impact Assessment Required YES/NO**
Race	None	None	None	No
Pregnancy & Maternity	May alter birth experiences.	Interventions have been shown to improve neonatal morbidity and mortality.	Pregnant people affected by the condition are impacted, but this is not influenced by any other protected characteristic.	No
Disability	None	None	None	No
Religion and beliefs	None	None	None	No
Sex	None	None	None	No
Gender reassignment	None	None	None	No
Sexual Orientation	None	None	None	No
Age	None	None	None	No
Marriage & Civil Partnership	None	None	None	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?	This guideline is only relevant to pregnant people, affected by the condition of PPROM. However, no other protected characteristics influence the management proposed within this clinical guideline, and I therefore anticipate no negative impact on equality or diversity.			

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.