GIG CYMRU NHS WALES
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Management of Pre-Term Labour

Specialty:	Maternity Services
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PRE-TERM LABOUR

Introduction

This is defined as the onset of established labour after the age of fetal viability and before 37 completed weeks gestation. The diagnosis is made by the onset of regular uterine contractions associated with progressive cervical effacement and dilatation. It complicates 5-10% of all pregnancies and is responsible for up to 70% of all neonatal deaths in normally formed babies.

The prevention of preterm delivery is not always indicated. In most cases, labour between 34-37 weeks gestation will be allowed to continue. Babies born prior to 34 weeks experience most mortality and morbidity, and efforts should be made to postpone delivery (by tocolysis) for 24-48hours for steroid administration, as long as there are no fetal/maternal contra-indications.

It is important to consider the possibility of placenta abruption (concealed Antepartum haemorrhage), especially when associated with backache/loose stools. Ultrasound is not helpful in early diagnosis. A high level of clinical awareness is vital.

MANAGEMENT

1. Confirmation:

Attempt to confirm patient is really in labour, as many patients present with false labour

- Cervical assessment: evidence of dilatation and effacement
- Monitoring of uterine activity: regular strong contractions
- Descent of presenting part (N.B. Preterm labour may be relatively 'silent', always perform a vaginal examination in the absence of PPROM.)
- Cervical Actim partus testing for prediction of pre-term labour (see flow chart)

2. Treatment

Steroids:

Betamethasone if Actim partus is positive 12mg 24 hrs apart

TOCOLYSIS:

Indication:

Pre-term labour between 24 and 34 weeks, of unproven cause, when the risk of delivery outweighs that of continuing the pregnancy. Only indicated if there is a need to give steroids. It is reasonable NOT to use tocolytic drugs as there is **no** clear evidence that they improve outcome. However, tocolytics should be considered if the few days gained would be put to good use – such as completing a course of corticosteroids, or in utero transfer.

Absolute Contraindications:

Maternal: cardiac shock, aortic stenosis, Sever pre-eclampsia

Fetal: severe IUGR, fetal compromise

Obstetric: intra-uterine infection, abruption

Relative Contraindications

Maternal: Cardiac failure, diabetes mellitus, abnormal liver function, previous hypotensive reaction

Obstetric: Premature pre-labour rupture of the membranes, cervical dilatation >4cm

Choice of drug:

There is little difference in the effect of Ritodrine, Nifedipine, Terbutaline and Atosiban in delaying delivery. Nifedipine and Atosiban have fewer maternal side-effects and less risk of rare serious adverse effects.

FIRST LINE TREATMENT:

NIFEDIPINE: calcium channel blocker. Advantage of oral use low cost. Not licensed but widely used

DOSAGE:

- Preload: 500ml Normal Saline IV over 20-30 min prior to giving Nifedipine
- Nifedipine:
    - First dose 10mg orally
    - Further 10mg every 15 minutes for the first hour, until contractions stopped
    - 60-160mg/day of slow realease Nifedipine depending on uterine activity for 48hrs
- Omit further Nifedipine if:
    - Significant maternal hypotensive reaction to any dose
        - Reduction in MAP> 20 mmHg (and/or systolic <100mmHg)

- Causing severe maternal symptoms
- Causing adverse CTG changes/ meconium liquor

- No evidence of cervical dilatation

Side Effects: Transient hypotension, flushing, palpitations, headache

SECOND LINE TREATMENT:

ATOSIBAN: licensed in UK, expensive

DOSAGE

1. Initial bolus of 6.75mg over 1 minute
2. infusion of 18mg/h for 3 hours
3. 6mg/h for up to 45 hours

Duration of treatment should **not exceed** 48 hours and the total dose given during a full course should **not exceed** 330mg of Atosiban

Maintenance tocolysis is NOT recommended for routine practice

In view of lack of evidence for any substantial benefit for the baby from tocolysis, and the possibility of hazard for the mother, the available evidence should be discussed with women and their partners and their preference taken into account in determining the care.

THIRD LINE TREATMENT

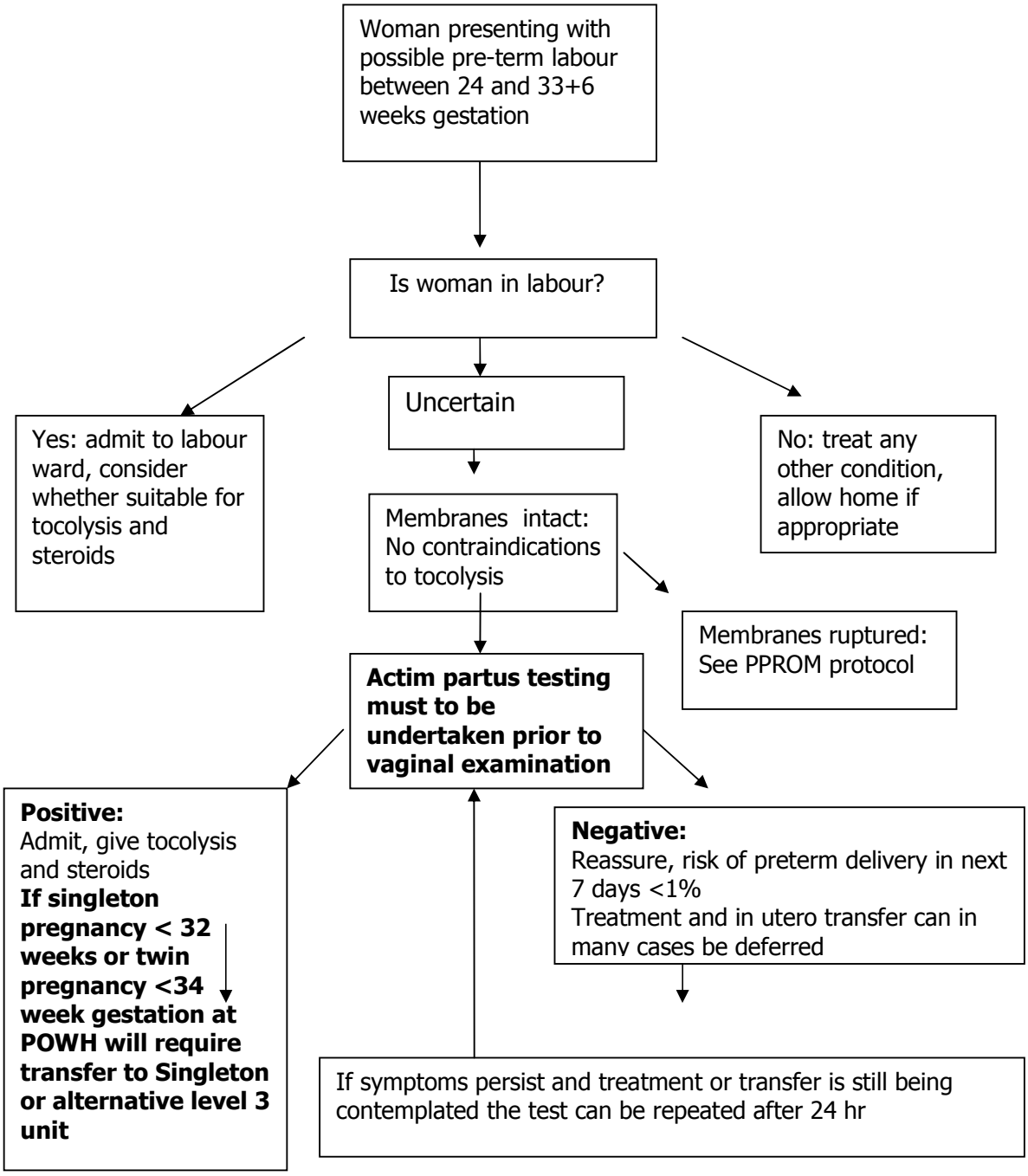
INDOMETACIN: unlicensed, cheap

In certain cases, indometacin can also be used, where there are contra-indications to the previous drugs, but only in the second trimester as there is a risk of premature closure of the ductus arteriosus in the third trimester. This must be a consultant decision.

DOSAGE

100mg PR repeated 12-24 h later

Proposed guideline for the management of pre-term labour and the use of Actim Partus



Contra-indications to Actim Partus:

- Prior vaginal examination
- Dilatation > 3cm
- Ruptured membranes
- 35 weeks gestation
- Moderate to heavy bleeding PV
- Placenta praevia

For POW

Women with a singleton gestation of 32 weeks or twin gestation of 34 weeks or less should ideally be delivered in a hospital where level 3 neonatal care is available. However, delivery during transfer needs to be avoided, and therefore a careful assessment of the stage and progress of labour will have to be made before the transfer.

Management of women thought to be in preterm labour

Women need to be informed of the risks of premature delivery to their baby and this is the responsibility of the paediatrician.

In utero transfers

Prior to any in-utero transfer being accepted from other obstetric units the woman must have a postivie pre-term predicter test i.e actim partus or fetal fibronectin. In addition the in-utero transfer form must be completed clearly indicating acceptance of transfer by all appropriate professionals.

FETAL MONITORING

Betweeen 24 and 26 weeks intermittent auscultation is recommended.
From 26 weeks continuous fetal monitoring is advised if in established labour.

There is no clear guidance on the interpretation of abnormalities seen on a CTG trace or heard with intermittent monitoring in extreme prematurity. It is therefore recommended that the Obstetrician managing the case should ensure that the woman understands this. He/she should discuss the implications of the monitoring with her. A management plan needs to be agreed and documented .

Reference

RCOG green top guideline Tocolytics October 2002
RCOG guideline PPROM Nov 2006