Induction of Labour for Postmaturity (low risk pregnancies) Guideline

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2		Obstetric Written Documentation Review Group	14.4.2018	1/10/2018	14.4.2021
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Brief Summary of Document:	Management of induction of labour for post dates low risk pregnancies All other patients need an individualised care plan for Induction of Labour
Scope	This guideline is applicable to medical, midwifery and nursing staff involved in the care of low risk patients undergoing induction of labour for postmaturity

To be read in conjunction with:	Birth Choices after Caesarean Section Guideline Large for Gestational Age in the Non-Diabetic Guideline Fetal Monitoring Guideline

Owning group	Obstetric Written Documentation Review Group

Reviews and updates		
Version no:	Summary of Amendments:	Date Approved:
1	New Guideline	14.9.2017
2	Reviewed – minor changes	14.4.2018

Glossary of terms
IOL = induction of labour
VBAC = vaginal birth after caesarean section
CTG = cardiotocograph
ARM = artificial rupture of membranes
FHR = fetal heart rate
NICE = National Institute of Clinical Excellence

Keywords	Induction of labour, postmaturity, low risk pregnancy

Contents

1. SCOPE

This guideline is applicable to medical, midwifery and nursing staff involved in the care of low risk patients undergoing induction of labour for postmaturity.

2. AIM

The aim of this guideline is to define principles of induction of labour (IOL) for postmaturity in low risk patients. IOL in special circumstances must be discussed with patient´s Consultant (Consultant on-call) or are discussed in specific guideline (IOL in the presence of uterine scar).

3. OBJECTIVES

The aim of this guideline will be achieved by the following objectives:

- Clearly defining IOL
- Detailing the methods of IOL
- Assessment of patients
- Process of induction.

4. INDUCTION OF LABOUR (IOL)

IOL is defined as an intervention designed to artificially initiate contractions leading to progressive dilatation and effacement of the cervix and birth of the baby.

IOL for post maturity should **not** be considered before Term+12 unless maternal or fetal risk factors have been identified.

Decision to perform routine IOL at Term+12 in low risk patients (uncomplicated pregnancy, no abnormal obstetric history) can be done by midwife or obstetrician and clear indication stated in notes and IOL book. In case of any complications or problems in obstetric history this must be discussed with senior obstetrician.

IOL before Term+12 must be discussed and agreed by named Consultant.

Patients over 40 years of age

Because there is some evidence that patients over 40 years of age have significantly increased risk of Intrauterine death, IOL in patients between 40-44 years of age can be considered after 40+0/40 and in patients older than 44 years even before due date.
Patients over 40 years of age should have individualised plan for IOL made by their Consultant and documented in notes.

Suspected fetal macrosomia (large for gestational age)

In the absence of any other indications or problems (eg diabetes), suspected fetal macrosomia should **not** be an indication for earlier IOL.

History of precipitate labour

IOL to avoid a birth unattended by healthcare professionals should not be routinely offered to patients with a history of precipitate labour.

Maternal request

IOL should not routinely be offered on maternal request alone.

Vaginal birth after caesarean section (VBAC)
IOL after caesarean section carries the potential additional risk of uterine scar dehiscence/rupture. This must be agreed by the consultant obstetrician. See Birth Choices after Caesarean Section Guideline.

Patients who decline induction of labour
Patients who decline IOL at Term+12 should be referred to a Consultant/Senior Obstetrician. The risks of fetal compromise and stillbirth increase with advancing gestation (from 42 weeks onwards), although this is from a low baseline. Because there is no precise way to identify those at particular risk, current practice is to offer delivery to all such patients. A clear management plan should be documented in patients's hand-held and hospital notes.

These patients should be offered increased antenatal monitoring consisting of CTG (daily >41+6/40) and ultrasound estimation of maximum amniotic pool depth.
Any abnormalities found in the CTG or liquor volume should be discussed with patient´s Consultant (Consultant on-call) and recommendation for IOL should be discussed again.

Patients must be aware that CTG and USS surveillance has a poor predictive value.

5. METHODS OF IOL

The methods of induction are varied and success depends on appropriate assessment and treatment. Failed induction is a major contributory factor for unnecessary Caesarean section and should be minimised. Patients should have an abdominal and vaginal examination performed and the indication for the induction reviewed and clearly recorded.

5.1 **Cervical ripening by prostaglandins**

The majority of patients will benefit from vaginal insertion of Prostaglandin to ripen the cervix prior to amniotomy.

Vaginal prostaglandin (PGE2) is the preferred method of induction of labour, unless there are specific clinical reasons for not using it (in particular the risk of uterine hyperstimulation). It should be administered as a gel, tablet or controlled-release pessary. Side effects and precautions are the same for all forms of PGE2.

5.1.1 **Prostin gel** (prostaglandin E2 Dinoprostone)

Dinoprostone in form of vaginal gel 1mg or 2mg should be considered as the preferred form in multiparous patients or in nulliparous patients with favourable Bishop score. Standard regime considers administration of 1-2mg followed by a second dose of 1-2mg in 6-12 hours interval (varies according local policies) up to 4mg total dose in nulliparous patients and 3mg total dose in multiparous patients.

Further prostaglandin medication must be discussed with the Consultant/Senior Obstetrician.

5.1.2 **Propess** (prostaglandin E2 Dinoprostone)

Propess is a pessary containing 10mg of PGE2 for release over 24 hours. Propess should be considered as the first choice option in nulliparous patients (see further flowchart).

Administration: One pessary is inserted high into the posterior fornix.

An application may be repeated once after 48 hours (24 hours rest - see flow chart) if there is no improvement in the Bishop score.

No more than 2 Propess pessaries should be used for cervical ripening.

Propess should be removed

- After 24 hours
- When labour is established
- The membranes have ruptured and there are regular contractions >4 in 10
    - If no regular contractions, Cervix less than 3cm dilated and CTG normal – **Propess can stay in situ** until transfer to Labour room and Oxytocin drip arranged
- Significant vaginal bleeding
- There is evidence of uterine tachysystole, hypertonus or hyperstimulation
    - Tachysystole = ≥ 5 contractions in 10 minutes with normal CTG
    - Hypertonus = painful contraction lasting ≥ 90 seconds: normal CTG
    - Hyperstimulation = Tachysystole or hypertonus with abnormal CTG
- CTG suggests fetal distress
- There is evidence of maternal systemic adverse effect such as severe nausea and vomiting

5.1.3 Amniotomy (ARM)

ARM should not be used routinely for IOL without prior application of prostaglandins. It can be considered in patients going for VBAC where prostaglandins increase risk of uterine rupture.
If patients are suitable for ARM and Oxytocin alone an intravenous fluid chart and the Oxytocin is to be prescribed and placed in the notes ready for admission.

Prior to ARM abdominal and vaginal examination should be performed to confirm presentation and engagement.

ARM should be discussed with the woman and verbal consent obtained and this should be recorded in the notes.

When performing ARM a sterile technique and an Amnihook should be used to rupture the forewaters. Note in patients labour notes the cervical findings, indication, amount and colour of liquor and presence of meconium.

5.1.4 Cervical ripening balloon

Insertion of a double balloon catheter for induction of labour at term in pregnant patients aims to facilitate induction through causing dilation of the cervix when the cervix is unfavourable for induction. The double balloon is claimed to stimulate local prostaglandin release, which leads to cervical ripening, through the 2 balloons squeezing the cervix.

Please see link for full guidance: http://www.nice.org.uk/guidance/ipg528

6. ASSESSMENT

The components of the Bishops Score must be recorded in full (as below) using the stamp available on the Ward.

Modified Bishops Score (Max 10)	0	1	2
Dilatation (cm)	<1	1 – 2	3 – 4
Length of cervix (cm)	>4	2 – 4	1 – 2
Station (relative to ischial spines)	-3	-2	-1/0
Consistency	Firm	Average	Soft
Position	Posterior	Mid/Anterior	Anterior

7. PROCESS OF INDUCTION OF LABOUR

- Prostaglandins should be prescribed on the drug chart placed in patient´s notes in preparation for ward admission (2 doses of Prostin gel 1-2 mg or Propess 10mg, see further in the flowchart)

- I0L leaflet to be given to woman following antenatal clinic visit

- I0L book to be completed in full
    - name and address
    - telephone number
    - Consultant
    - Gravida/para
    - Indication for I0L
    - Team

- Admission to wards varies per local protocol. See flow chart for Prostin/ Propess administration

- Patients will ring for bed availability prior to admission. Admission time varies per local protocol. After admission to the ward CTG and baseline observations are commenced (BP, pulse, temperature, urinalysis, palpation).

- Assess CTG for 30 minutes prior to performing a vaginal examination and assessment of Bishop Score. If the CTG is normal, proceed with prostaglandin administration as per the appropriate flow chart. Keep the woman on the CTG for 30 minutes following Prostin gel/Propess administration. If the CTG is normal, it can be discontinued.

- After 30 minutes encourage mobilisation and await events.

- Intermittently auscultate the fetal heart according to clinical judgement.

- Once contractions are reported fetal heart rate should be monitored with CTG for 30 minutes to achieve a normal trace then use intermittent auscultation according to clinical judgement.

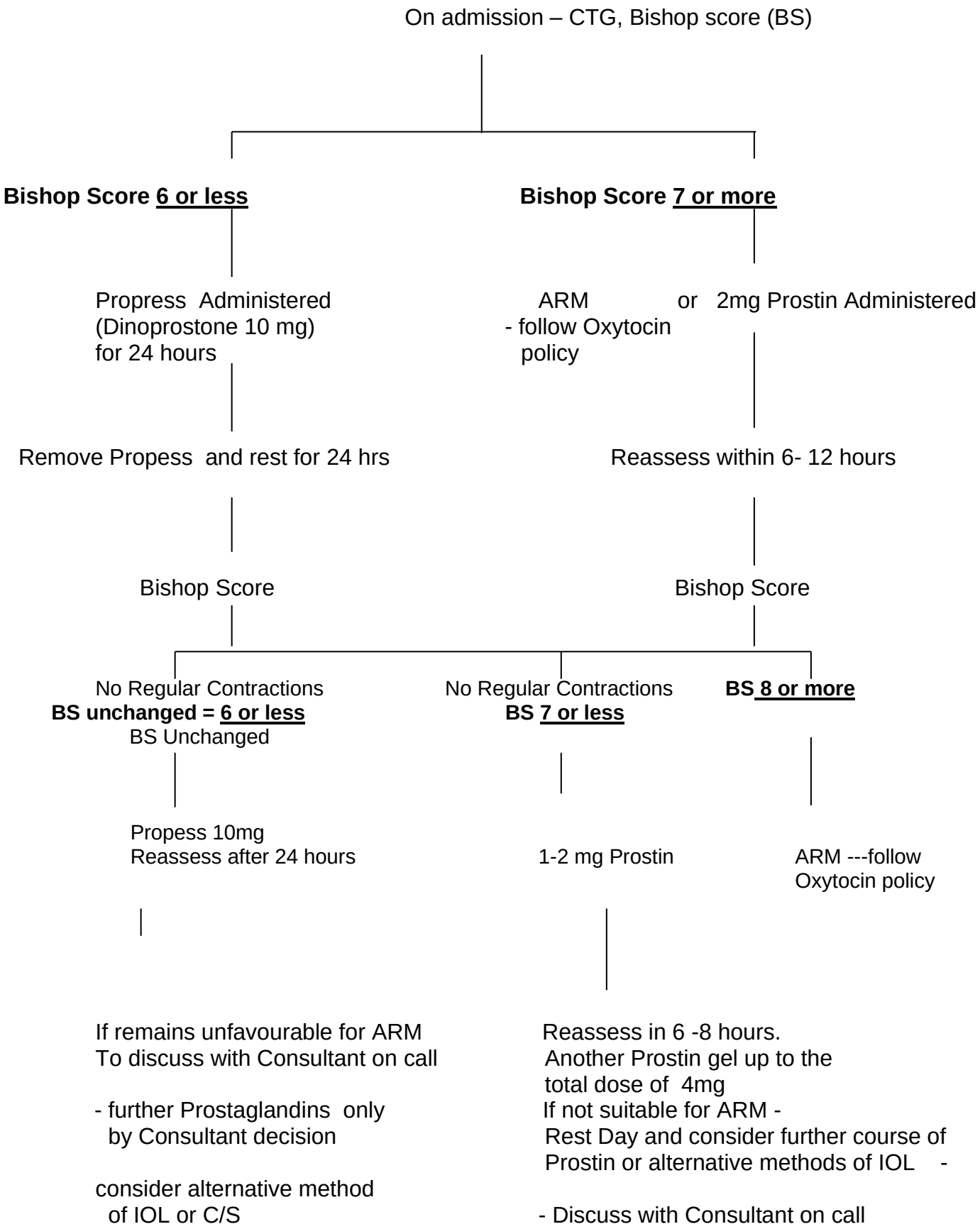
- Once in established labour use continuous CTG as per NICE guidance.

- Further doses of prostaglandins to be given as per following flowchart.

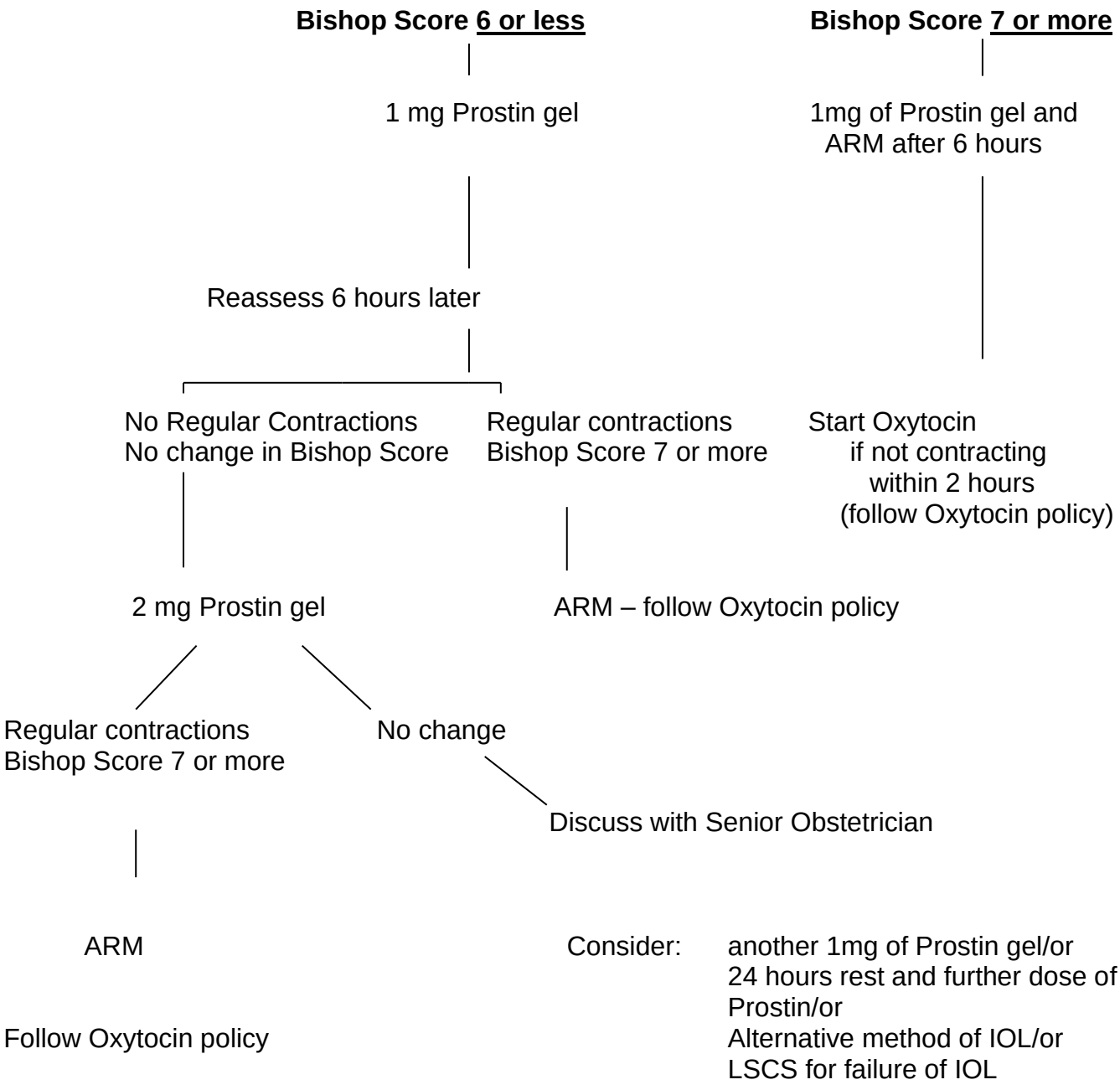
Reasons to perform continuous CTG:

1) Significant meconium-stained liquor, also consider in the case of light meconium-stained liquor
2) Abnormal FHR heard on IA (<110bpm, >160bpm, any decelerations after a contraction)
3) Maternal pyrexia (38.0C or more on one occasion, 37.5C on two occasions 2hrs. apart)
4) Fresh bleeding developing in labour
5) Oxytocin use for augmentation of labour
6) Maternal request.

8. NULLIPAROUS PATIENTS (4mg of Prostin in total)



9. MULTIPAROUS PATIENTS (3 mg in TOTAL)



10. MANAGEMENT OF UTERINE HYPERSTIMULATION

Tachysystole = ≥ 5 contractions in 10 minutes with normal CTG
Hypertonus = painful contraction lasting ≥ 90 seconds: normal CTG
Hyperstimulation = tachysystole or hypertonus with abnormal CTG

1) Keep on CTG

2) Place patient in left lateral position

3) **Remove Propess – DO NOT perform ARM**

4) Inform on-call registrar and transfer to labour ward
   - IV Access (Take bloods for FBC / Group & Save)
   - IV 0.9% sodium chloride – start at a rate of 500ml/h

5) **If CTG is normal**:
Wait for 15-30 mins then reassess.
If tachysystole or hypertonus persisting, administer 250 micrograms SC **TERBUTALINE** (ie 0.5ml of 0.5mg/ml solution of Bricanyl).

6) **If CTG is NOT normal (suspicious or pathological)**:
Administer 250 micrograms SC **TERBUTALINE** immediately, and involve the on call anaesthetist.

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