National Women & Infants Health Programme

QUICK SUMMARY DOCUMENT

Induction of Labour

This QSD is a resource for all clinicians working in healthcare in Ireland who are involved in the care of women undergoing Induction of Labour.

Following a comprehensive literature review a number of evidence-based recommendations for management of Induction of Labour were agreed upon.

Key Recommendations

Indications for Induction of Labour

1. We recommend women with uncomplicated pregnancies should be offered induction of labour (IOL) at 41+0 weeks. A full discussion with the woman should occur and include discussion of the benefits and risks of induction. The benefits, risks and alternative monitoring options must be accurately presented using a shared decision-making approach so that women and their partners, families and carers can understand the likely or potential outcomes of induction, taking into account their individual circumstances and preferences.
2. We recommend that women who decide not to have their labour induced at 41+0 weeks for the prevention of prolonged pregnancy should meet with a senior clinician (Midwife or Obstetrician) where an individualised management plan can be made and documented in the maternity notes. This plan may include Caesarean birth or expectant management and/or commencing induction at a date agreeable to the woman. We recommend that an ultrasound estimation of amniotic fluid single deepest pool depth be undertaken at this visit at 41+0 weeks.
3. We recommend that all pregnant women (Supported, Assisted and Specialised care pathways) meet with a Consultant Obstetrician at 42+0 weeks or as close as practically possible where an individualised management plan can be made and documented in the maternity notes. This discussion should include options from this point and should outline the increased and unpredictable risk of stillbirth. Ideally for women planning a Homebirth they should meet the Consultant Obstetrician linked to the HSE home birth services, or their nominated deputy in their absence.
4. Increased fetal monitoring in the form of twice weekly cardiotocographs and twice weekly ultrasound estimations of amniotic fluid single deepest pool depths should be offered from 42+0 weeks until the baby is born.
5. We recommend that women who decide not to have an induction are advised to contact their maternity provider by telephone or other means if they change their mind or if they have any concerns regarding fetal wellbeing e.g. reduced fetal movements. Women should be provided with verbal and written information on what to monitor for and when to seek urgent assistance and should have a clear point of contact with the maternity hospital/unit.
6. Each maternity hospital/unit should create a designated pathway for women who change their mind regarding their induction or want to have an additional conversation before the next appointment.
7. Women with pre-labour rupture of membranes at term (at or over 37 weeks), who do not have known Group-B Streptococcus (GBS) colonisation, should be offered either expectant management for up to 24 hours, or immediate IOL. We recommend a shared decision-making approach between the woman and her care provider.
8. We recommend that women with pre-labour rupture of membranes who are known GBS carriers should be offered prompt intrapartum antibiotic prophylaxis and IOL as soon as reasonably possible.

9. We suggest that in the setting of pre-labour rupture of membranes and an unfavourable cervix (Bishops Score <7) labour can either be induced in the first instance with an oxytocin infusion or with a single 1 to 2mg dose of Prostin® gel placed into the posterior fornix, using a shared decision-making approach between the woman and her clinician.
10. We recommend that, in the setting of pre-labour rupture of membranes, a vaginal examination should be performed to confirm the forewaters are absent or an amniotomy should be performed if forewaters are still present before commencing an oxytocin infusion.
11. We recommend the decision for IOL and for commencing oxytocin on a woman with a previous Caesarean birth should be made by a Consultant Obstetrician in consultation with the woman and clearly documented in the maternity notes, alongside relevant risks and accounting for the woman's preferences.
12. We recommend that the increased risk of uterine rupture associated with any induction of labour and the potential decreased possibility of achieving a vaginal birth after Caesarean section (VBAC) should be considered and discussed with the woman.
13. We recommend that IOL in women who have had uterine surgery, such as myomectomy or uterine perforation, should be discussed with a Consultant Obstetrician. Operation notes from the procedure previously undertaken should be reviewed, where possible.
14. Induction of labour in a woman with a previous single Caesarean birth may be undertaken with amniotomy, balloon catheter or with the Dilapan-S® cervical dilator. We recommend that a review of women aiming for vaginal birth after Caesarean section (VBAC) should be undertaken prior to 41+0 weeks to assess the cervix and reconsider the options.
15. Prostaglandins for planned VBAC are not recommended as they significantly increase the risk of uterine rupture.
16. It is reasonable to offer induction of labour at 39+0-40+0 weeks' gestation for women aged 40 and above. Benefits and risks of IOL should be discussed with the woman, taking into account her individual circumstances and preferences.
17. In the setting of suspected fetal macrosomia in the absence of gestational diabetes mellitus, women should be provided with information about the benefits and risks of expectant management versus IOL so they can make an informed decision.
18. Requests for IOL from 39 weeks should be considered, after discussing the benefits and risks with the woman, and taking into account the woman's circumstances and preferences as well as the maternity hospital/unit's resources and established care pathways.
19. Induction of labour for maternal request is not recommended prior to 39 weeks due to the increased risk of maternal and neonatal morbidity.
20. There is insufficient evidence to recommend IOL at 39 weeks in normal risk pregnancies for the prevention of stillbirth.
21. Women with a history of precipitous labour should not routinely be induced in order to avoid a birth unattended by healthcare professionals. However, should a woman request IOL, each case should be considered individually with a review by their healthcare provider taking into account the woman's individual preferences and circumstances (including distance from maternity hospital/unit) using a shared decision-making approach.

Birth Experience

22. Communicating the indication, intended benefits, possible risks, and methods available for IOL allows informed decisions, and women should be supported in their choice.
23. The use of non-pharmacological pain management such as breathing techniques, massage, hydrotherapy and one-to-one support should be optimised as well as pharmacological pain relief (e.g. IM pethidine or epidural anaesthesia) as required.
24. Continuous emotional support during labour should be facilitated, this includes one to one midwifery care.

Methods of Induction of Labour

25. We recommend membrane sweeping should be offered from 39 weeks.
26. We recommend that abdominal palpation, including a measurement of the symphysial fundal height (SFH), assessment of the lie and presentation of the baby and auscultation of the fetal heart should be performed prior to carrying out a membrane sweep.
27. Informed consent should always be obtained prior to carrying out a membrane sweep.
28. We recommend that prior to membrane sweeping and IOL, the fetal anatomy ultrasound scan report and the most recent ultrasound scan should be reviewed to ensure the placenta is not low lying.
29. We recommend membrane sweeping and IOL should be performed by a suitably trained healthcare professional.
30. Healthcare professionals should be aware of the contraindications and precautions to using all methods of IOL.
31. We recommend the use of prostaglandins, oral misoprostol or mechanical methods of induction of labour as safe and effective induction agents.
32. Amniotomy alone followed by oxytocin infusion can be considered for a woman with a favourable cervix (Bishop's Score of 7 or more). It is reasonable to commence an intravenous oxytocin infusion soon after amniotomy in order to establish labour.
33. Women should have one to one midwifery care and continuous fetal monitoring via cardiotocography while receiving an oxytocin infusion.

Setting of Induction of Labour

34. Women with a high-risk pregnancy undergoing IOL should be part of the handover process to the incoming obstetric and midwifery teams (including the Consultant Obstetrician on call and the Assistant Director of Midwifery) at clinical handover times.
35. Outpatient induction of labour should be considered in women who wish to return home, have no co-existing medical conditions or obstetric complications, have good social support and have good accessibility to the maternity hospital/unit.
36. Safety and support procedures should be in place for an outpatient IOL. Women should receive written information detailing the maternity hospital/unit's contact details, red flag symptoms and instructions on when to return to the maternity hospital/unit for review. Staff should confirm that women have access to a telephone, transport to the maternity hospital/unit and that there is a support person at home.
37. We recommend that women are asked to contact their Midwife, maternity hospital/unit or Obstetrician:
    a. when no contractions within an agreed timeframe, depending on IOL method used
    b. when contractions begin
    c. if her membranes rupture
    d. if she develops bleeding
    e. if she has any other concerns, such as reduced or altered fetal movements, excessive pain, side effects or loss of the pessary/mechanical induction agent.

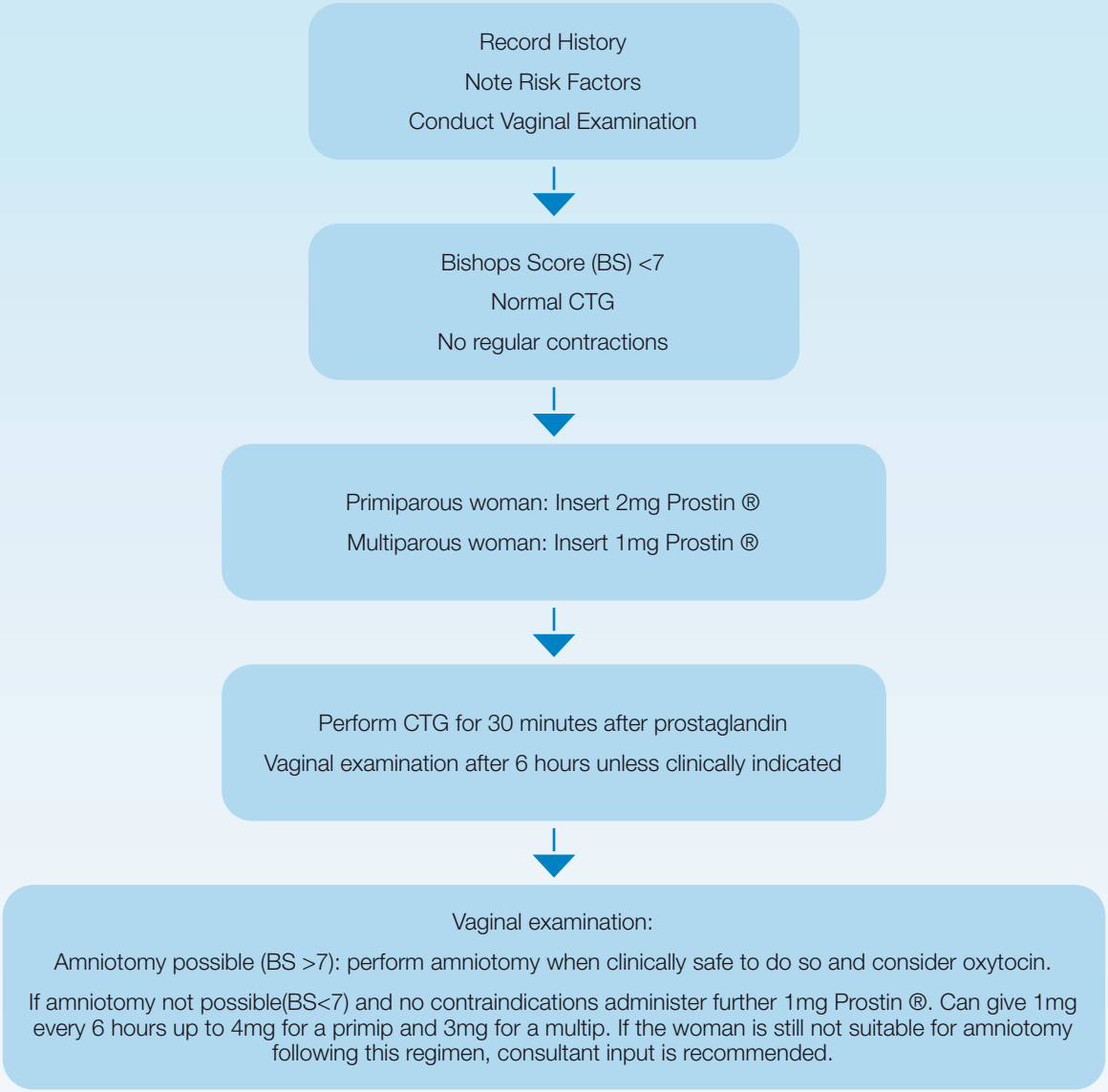
Complications of Induction of Labour

38. We recommend that when labour has not started after one cycle of IOL treatment, the full clinical picture should be reassessed and discussed with a senior clinician, taking into account the individual clinical scenario, the original indication for IOL, maternal and fetal wellbeing, and the woman's preferences.
39. A second dose of Propess®, immediately after the first dose, is not recommended as the effects have not been studied.
40. Additional doses of Prostin® gel (1mg) can be administered when Propess® has been unsuccessful.

41. After a period of 24-hour rest, a full cycle of Dinoprostone (Propess® or Prostin®) can be restarted from the beginning.
42. Both prostaglandins and mechanical methods of induction of labour are as effective as each other in induction of labour. They can be considered in sequence if one method has been unsuccessful in rendering the cervix suitable for amniotomy.
43. It is reasonable to offer Caesarean birth when induction has been unsuccessful at starting labour.
44. In the event of hyperstimulation, any form of ongoing induction agent in situ should be removed such as Propess®, osmotic dilators or balloon catheter.
45. In the event of hyperstimulation consider tocolysis with betamimetics. The preferred drug of choice is terbutaline 250 micrograms injection administered subcutaneously.
46. In the setting of hyperstimulation we recommend expediting birth of the baby if the CTG is pathological, despite tocolysis.
47. We advise against the administration of tocolysis to a woman who is bleeding at the time of uterine hyperstimulation.
48. Before IOL is started, we recommend assessing the engagement of the presenting part, and ruling out umbilical cord presentation on vaginal examination to reduce the likelihood of a cord prolapse.
49. We recommend that women with a previous Caesarean birth should have antenatal counselling regarding decision for mode of birth. This process needs to be clearly documented in the notes.
50. We recommend that women who are planning a VBAC should be cared for in a setting where continuous electronic fetal heart rate monitoring, one to one midwifery care and the other resources for emergency Caesarean birth are available.
51. Continuous CTG (using oxytocin, at the onset of contractions, at the diagnosis of labour) is recommended for women who are planning a VBAC as abnormal fetal heart rate patterns are the most consistent finding in uterine rupture.
52. There is no role for attempted induction of labour for women with a previous classical Caesarean section.
53. We recommend mechanical methods of IOL over pharmacological methods in a woman with a previous Caesarean birth.

Algorithm

Algorithm 1: Induction of labour pathway for women with no contraindications and intact membranes using Prostin ® E2 Vaginal Gels

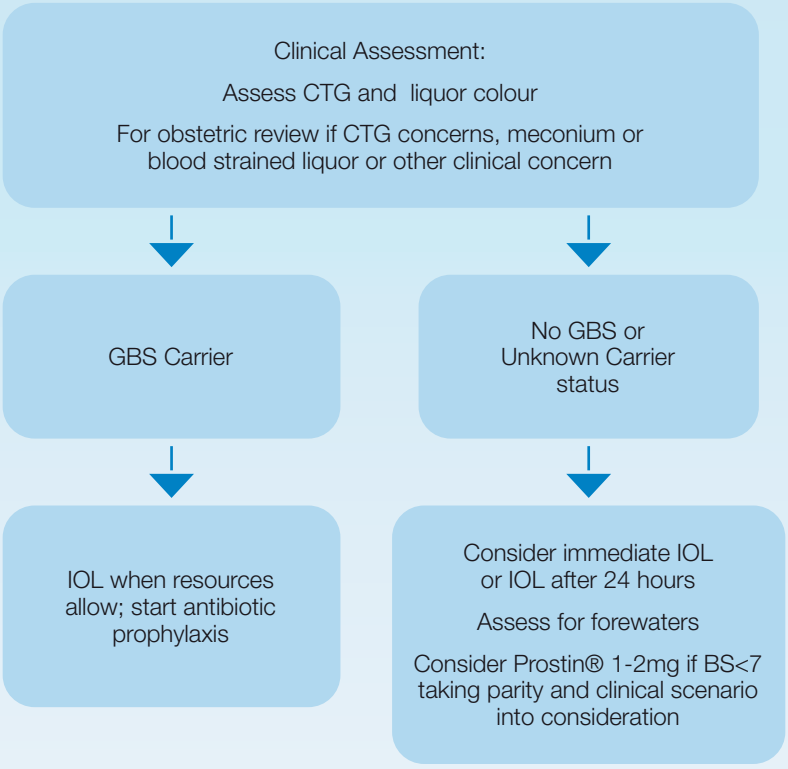


Key: CTG = Cardiotocograph
BS = Bishops score

Algorithm 2: Induction of labour pathway for women with intact membranes using Propess® 10 mg vaginal delivery system

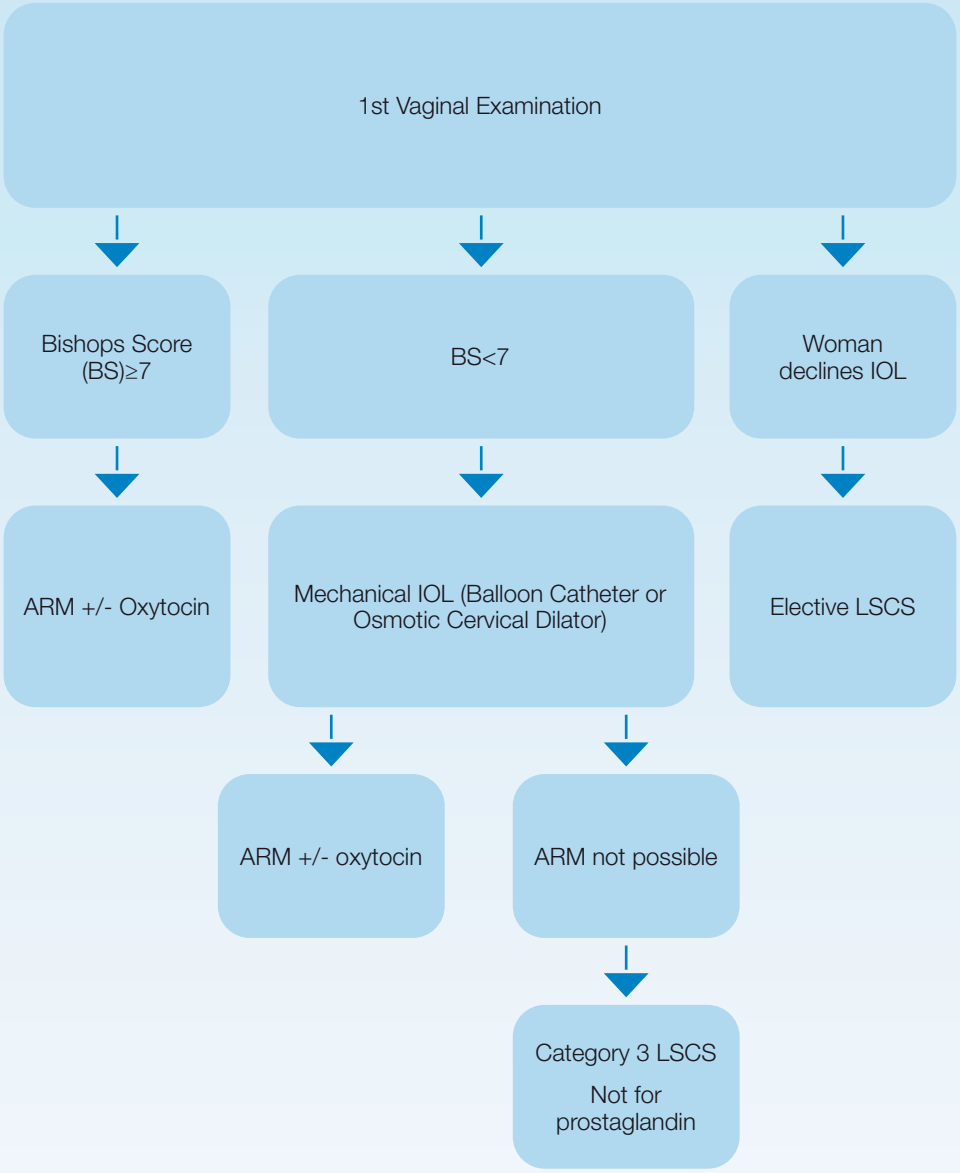
Key: CTG = Cardiotocograph
BS = Bishops score

Algorithm 3: Induction of labour pathway for women with term prelabour rupture of membranes



Key: CTG = Cardiotocograph
GBS = Group B Streptococcus
IOL = Induction of Labour
ARM = Artificial Rupture of Membranes

Algorithm 4: Induction of labour pathway for women with one previous lower segment Caesarean section



Key: BS= Bishops Score
IOL=Induction of Labour
LSCS=Lower Segment Caesarean Section
ARM= Artificial Rupture of Membrane

Auditable standards

Audit using the key recommendations as indicators should be undertaken to identify where improvements are required and to enable changes as necessary, and to provide evidence of quality improvement initiatives.

Auditable standards for this guideline include:

1. The number of women offered a membrane sweep prior to other methods of IOL.
2. The number of women being induced at 41+0 weeks
3. The number of women receiving vaginal prostaglandin within two hours of being admitted for IOL.
4. The number of women in whom the Bishop score is recorded in the notes.
5. Maternal observations are carried out before and during IOL, prior to established labour.
6. Fetal heart rate monitoring is carried out before and during IOL, prior to established labour.
7. Mode of birth following IOL.
8. Women with a previous uterine scar have the decision for IOL made by a senior clinician and have an individual management plan recorded in their notes.

Recommended reading:

1. Full Clinical Guideline – https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/
2. HSE Nomenclature for Clinical Audit – https://www.hse.ie/eng/about/who/nqpsd/ncca/nomenclature-a-glossary-of-terms-for-clinical-audit.pdf
3. HSE National Framework for developing Policies, Procedures, Protocols and Guidelines at https://www.hse.ie/eng/about/who/qid/use-of-improvement-methods/nationalframeworkdevelopingpolicies/
4. World Health Organization and Dept. of Reproductive Health and Research. WHO recommendations for induction of labour, https://www.who.int/publications/i/item/9789241501156 (2018, accessed 01/10/2021).
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11. Jozwiak M and Bloemenkamp K. Mechanical methods for induction of labour. Cochrane Database Syst Rev 2012. DOI: 10.1002/14651858.CD001233.pub2

12. Wilkinson C, Bryce R, Adelson P, et al. A randomised controlled trial of outpatient compared with inpatient cervical ripening with prostaglandin E2 (OPRA study). Bjog 2015; 122: 94-104. 2014/05/16. DOI: 10.1111/1471-0528.12846

13. Robinson D, Campbell K, Hobson SR, et al. Guideline No. 432c: Induction of Labour. J Obstet Gynaecol Can2023; 45: 70-77.e73. DOI: 10.1016/j.jogc.2022.11.009

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Mitchell J.M, Nolan C, El Shaikh M, Cullinane, S, Borlase D. National Clinical Practice Guideline: Induction of Labour. National Women and Infants Health Programme and The Institute of Obstetricians and Gynaecologists. October 2023

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/