

# Induction of Labour (IOL) - Clinical Guidance

Unique Identifier	NMP200/SSM/061 - v08.00	
Document Type	Clinical Guideline	
Risk of non-compliance	may result in significant harm to the patient/DHB	
Function	Clinical Practice, Patient Care	
User Group(s)	Auckland DHB only	
<ul> <li>Organisation(s)</li> </ul>	Auckland District Health Board	
<ul> <li>Directorate(s)</li> </ul>	Women's Health	
<ul> <li>Department(s)</li> </ul>	Maternity	
• Used for which patients?	Maternity patients	
Used by which staff?	All clinicians in maternity including access holder Lead Maternity Carers (LMCs)	
Excluded		
Keywords		
Author	Midwifery Educator	
Authorisation		
Owner	Service Clinical Director - Secondary Maternity Services	
Delegate / Issuer	Senior Medical Officer	
Edited by	Document Control	
First issued	November 2005	
This version issued	27 September 2021 - updated	
Review frequency	3 yearly	

# Contents

1.	Purpose of guideline			
2.	Background3			
3.	Gen	neral principles	3	
3.	1	Ensure correct gestational age	3	
3.	2	Early term versus full term	3	
3.	3	Membrane sweeping	3	
3.	4	Informed consent	3	
3.	5	Peer review	4	
4.	Indi	ications and timing for elective/planned IOL	4	
4.	1	Post-dates	4	
4.	2	Suspected macrosomia	5	
4.	3	Induction of Labour of Low Risk nulliparae at 39 <sup>+0</sup> -39 <sup>+4</sup> to reduce the risk of CS	5	
4.	4	No medical indication	6	
5.	Indi	ications and timing of urgent/acute IOL	6	
5.	1	Pre-labour Rupture of Membranes	6	
5.	2	Prolonged latent phase	6	
5.	3	Other acute clinical situations	6	
6.	Met	thods of cervical ripening	6	
6.	1	Prostaglandin E <sub>2</sub> (PGE <sub>2</sub> , dinoprostone) Vaginal Gel	7	
6.	2	Oral Prostaglandin E1 analogue (misoprostol)	8	



6.3 Transfer to Labour and Birthing Suite	9	
7. Balloon catheter	9	
7.1 Balloon catheter protocol	9	
7.2 Balloon recommended regimen	10	
8. Artificial rupture of membranes (ARM)	10	
8.1 ARM protocol	11	
9. Oxytocin	11	
10. Audit standards	11	
11. Supporting evidence	12	
12. Associated documents	12	
13. Disclaimer	13	
14. Corrections and amendments	13	
Appendix 1: Preparation of Oral Misoprostol for Cervical Ripening1		



# 1. Purpose of guideline

- To adapt the "Induction of Labour in Aotearoa New Zealand; A Clinical Practice Guideline (2019)" to the Auckland DHB context.
- To encourage best practice around Induction of Labour (IOL) at Auckland DHB.

# 2. Background

In 2018, one in four women who gave birth in New Zealand, and one in three women who gave birth at Auckland DHB, had their labour induced. The definition of IOL (National Institute for Health and Care Excellence [NICE 2008]) is to artificially initiate labour, and a common primary outcome measured in research studies is vaginal birth within 24 hours. A national multidisciplinary group of clinicians developed a guideline that reviewed the research evidence for common indications and timing for IOL, methods of IOL, and made recommendations. Links to the Induction of Labour in Aotearoa New Zealand; A Clinical Practice Guideline (2019) guideline and the associated RANZCOG webinar can be found in the <u>supporting evidence</u> section.

### 3. General principles

#### 3.1 Ensure correct gestational age

#### 3.2 Early term versus full term

**Research summary:** Early term birth (37<sup>+0</sup> to 38<sup>+6</sup> weeks' gestation) is associated with poorer neonatal and childhood outcomes compared to babies born full term (39 to 40 weeks' gestation).

#### Continue expectant management to 39 weeks' gestation or more, unless there is an evidencebased indication supporting earlier planned birth.

#### 3.3 Membrane sweeping

**Research summary:** Membrane sweeping reduces the frequency of pregnancy continuing beyond 41 weeks' gestation. Eight women would need to have membrane sweeping in order to prevent one post-term IOL.

#### Offer membrane sweeping from around 39 weeks' gestation.

#### 3.4 Informed consent

The decision to plan an IOL should be at the level of a vocationally registered obstetrician.

Provide the woman with the "Induction of Labour at Auckland City Hospital" information leaflet (available on the National Women's Health website) to guide discussion. Offer to answer questions and enable shared informed decision-making. After discussion with the woman and her partner/family/whanau and Lead Maternity Carer (LMC) (3-way conversation), document a clear management plan.



Discussion points to include:

- Primary reason for IOL and other contributory factors.
- Risks and benefits of IOL versus expectant management.
- Proposed method of IOL and rationale.
- Realistic expectation of duration of IOL.
- Possibility that their IOL may get deferred for clinical safety reasons.

A checklist/audit tool should be developed to capture this information in future.

#### 3.5 Peer review

Auckland DHB is committed to evidence-based practice, therefore all IOL requests are reviewed prior to booking. Refer to the "Induction of Labour - Policy" for further detail.

# 4. Indications and timing for elective/planned IOL

#### 4.1 Post-dates

**Research summary:** The <u>Cochrane review</u> of 34 randomised controlled trials (RCTs) (2020) concluded that compared with expectant management, a policy of routine IOL at or beyond 37 weeks' gestation resulted in better outcomes for mothers and babies:

- fewer perinatal deaths (Relative Risk (RR) 0.31, 95% CI 0.15 to 0.64; high certainty)
- fewer stillbirths (RR 0.30, 95% CI 0.12-0.75; high certainty)
- fewer babies admitted to NICU (RR 0.88, 95% CI 0.80-0.96; high certainty)
- fewer babies with 5-minute Apgar score < 7 (RR 0.73, 95% CI 0.56 to 0.96; moderate certainty)
- fewer caesarean sections (RR 0.90, 95% CI 0.85 to 0.95; moderate certainty)

Two multicentre RCTs (2019) randomised women to IOL at 41+0/41+1 weeks' gestation versus expectant management to 42+0 weeks' gestation.

- The <u>INDEX trial</u> (n=1801) found a decreased risk of composite adverse perinatal outcome in IOL group compared to expectant management (1.7% vs 3.1%, p=0.05).
- The <u>SWEPIS trial</u> (n=2760) was stopped early owing to a significantly higher rate of perinatal mortality in the expectant management group (5 stillbirths and 1 neonatal death) compared to none in the IOL group (p=0.03). They found no difference in risk of composite adverse perinatal outcome (2.4% vs 2.2%, p=0.9).

# Recommend IOL at 41<sup>+0</sup>/41<sup>+1</sup> weeks' gestation to women with an uncomplicated pregnancy, and support women who choose expectant management.

For the following antenatal risk factors, follow the Auckland DHB maternity policies and guidelines:

- Small for Gestational Age and Fetal Growth Restriction from 34 weeks Detection and Management
- Diabetes in Pregnancy
- Hypertension Antenatal, Intrapartum and Postpartum



For the following antenatal risk factors, follow the *Induction of Labour in Aotearoa New Zealand: A Clinical Practice Guideline (2019)*:

- Reduced fetal movements
- Maternal obesity
- Antepartum haemorrhage of unknown origin
- Assisted reproductive technology
- Multiple pregnancy
- Obstetric cholestasis
- Previous stillbirth

#### 4.2 Suspected macrosomia

**Research summary:** The <u>Boulvain trial</u> (2015) randomised 818 women with estimated large for gestational age baby (LGA) to IOL at 37+0 to 38+6 weeks' gestation versus expectant management. LGA was defined as scan EFW > = 3500g @ 36 weeks, > = 3700g @ 37 weeks, 3900g @ 38 weeks. IOL in this population reduced the rate of the composite primary outcome (shoulder dystocia, a range of birth injuries, and death) compared with expectant management (2% vs. 6%, RR 0.32, 95% 0.15-0.71). There was no brachial plexus injury, intracranial haemorrhage or death in either group. The likelihood of spontaneous vaginal birth was higher in the IOL group (59% vs. 52%, RR 1.12, 95% CI 1.10 – 1.20).

For women who meet the above trial criteria, and who initiate a request for IOL at 37<sup>+0</sup> to 38<sup>+6</sup> weeks' gestation to reduce the risk of shoulder dystocia, this can be considered on a case-by-case basis.

Auckland DHB does not support routinely offering IOL for suspected macrosomia diagnosed after 39 weeks' gestation.

#### 4.3 Induction of Labour of Low Risk nulliparae at 39<sup>+0</sup>-39<sup>+4</sup> to reduce the risk of CS

**Research summary:** The <u>ARRIVE trial</u> (2018) randomised 6106 low-risk nulliparae to IOL at 39<sup>+0</sup>-39<sup>+4</sup> weeks' gestation versus expectant management. IOL resulted in fewer caesarean sections (18.6% vs 22.2%, RR 0.84; 95% CI 0.76 - 0.93; p<0.001), compared with expectant management. This study was carried out in the USA with a young population (mean age 24) with a high representation of African American women and a low caesarean section rate (22.2% in the expectant management group). This is not consistent with the population of women at Auckland DHB. Discussion during development of the national guideline identified concerns about the external generalisability of these findings in the New Zealand context, and the Panel did not recommend the routine offer of IOL at 39 weeks in low risk nullipara. Auckland DHB supports this national position.

# Auckland DHB does not support routinely offering IOL at 39<sup>+0</sup> to 39<sup>+4</sup> weeks in low risk nullipara to reduce the risk of caesarean section (CS).

Outcomes and CS rates in "standard primipara" who birth at Auckland DHB should be audited routinely.



#### 4.4 No medical indication

Auckland DHB does not support IOL for no medical indication.

# 5. Indications and timing of urgent/acute IOL

#### 5.1 Pre-labour Rupture of Membranes

**Research summary:** The <u>Cochrane review</u> of 23 RCTs (2017) concluded that compared with expectant management, planned early birth resulted in:

- Fewer women had infectious morbidity (RR 0.49; 95% CI 0.33 to 0.72)
- Fewer babies had early-onset neonatal sepsis (RR 0.73; 95% CI 0.58 to 0.92)

# In women with diagnosed pre-labour rupture of membranes (PROM), offer planned early birth (defined as immediate IOL or IOL within 24 hours).

#### 5.2 Prolonged latent phase

For women with prolonged latent phase, the decision about IOL or expectant management can be individualised based on an informed discussion with the woman, her Lead Maternity Carer (LMC) and the obstetrician (3-way conversation).

#### 5.3 Other acute clinical situations

- Abnormal cardiotocography (CTG) or other objective concern for fetal well-being.
- Reduced fetal movements (RFMs) with abnormal CTG or or other objective concern for fetal well-being.
- Reduced liquor volume (ultrasound objective measurement of maximum liquor pool depth < 2 cm) and > 39 weeks' gestation.
- Intrauterine fetal demise/stillbirth.
- Termination of pregnancy/abortion.

#### In women with these conditions, offer IOL.

#### 6. Methods of cervical ripening

It is reasonable to offer any cervical ripening method for most indications for IOL. After 24 hours of one method, it is reasonable to switch to a second method.

A balloon IOL, rather than prostaglandin gel (PG) or oral misoprostol is recommended where maternal or fetal risks from tachysystole or hypertonus are increased; such as:

- Suspected high risk small for gestational age (SGA) or SGA associated with oligohydramnios or abnormal dopplers
- Previous caesarean section

For more information about the different methods of cervical ripening, refer to the *Induction of Labour in Aotearoa NZ: A Clinical Practice Guideline (2019).* 



Please inform eligible women about the outpatient balloon versus inpatient prostaglandin gel <u>OBLIGE</u> trial. They can watch the video about the study and download the pamphlet on the OBLIGE website.

Please inform women about the artificial rupture membrane (ARM) trial which is starting at National Women's Hospital (NWH); early versus late ARM for women for whom an ARM is indicated (who are not in the OBLIGE trial).

#### 6.1 Prostaglandin E<sub>2</sub> (PGE<sub>2</sub>, dinoprostone) Vaginal Gel

- 6.1.1 Vaginal PGE<sub>2</sub> gel protocol
- Ensure CTG is performed and is normal prior to administration.
- Document the woman's verbal consent.
- Site IV cannula and send bloods for full blood count (FBC) and group and screen.
- Position the woman comfortably on the bed, perform vaginal examination, perform stretch and sweep if possible, and place gel in posterior fornix.
- Auscultate fetal heart there is no need for a routine post-PGE<sub>2</sub> gel CTG in the absence of contractions.
- The woman can then mobilise, eat and drink, shower and bathe.
- Inform the woman of expected time of subsequent assessment.
- Document abdominal palpation, BS (using sticker), CTG findings (using sticker), PGE<sub>2</sub> gel dose, and date/time of gel in the woman's clinical record and on Whiteboard.

#### 6.1.2 Vaginal PGE<sub>2</sub> gel recommended regimen

- Prescribe each gel on the national medication chart.
- Dose of 1 mg or 2 mg should be a clinical decision based on the woman's parity and bishop score. There is no good evidence to support a specific regimen of PGs.
- One dose of gel, followed by a second dose after 6 hours (minimum).
- More than two doses in 24 hours may be considered if there are no signs of uterine hyperstimulation and there has been a discussion with the obstetric team on call.
- If after 24 hours labour is not established, the woman should be reviewed in person and examined by the LBS SMO. Consider switching to another method.
- Delay starting oxytocin by a minimum 6 hours after a dose of gel.
- At any point, if a woman has abnormal vaginal bleeding, painful regular contractions or spontaneous rupture of membranes, further maternal and fetal assessment should be performed.
- Routine fetal or maternal monitoring is unnecessary.

#### 6.1.3 Uterine hyperstimulation

Up to 5% of women having PG gel will experience uterine hyperstimulation. If this occurs:

- Ring the obstetrician (if private) or LBS team on call (if public).
- Place the woman in left lateral position.
- Administer intravenous fluids.



- If CTG is abnormal, refer to the *Oxytocin for Induction and Augmentation of Labour* guideline for options for acute tocolysis:
  - first line treatment of acute hyperstimulation is with terbutaline (Bricanyl) 250mcg subcutaneously as a single dose (contraindications: history of heart disease; significant risk factors for myocardial ischaemica; pulmonary hypertension; eclampsia or severe preeclampsia), otherwise glyceryl trinitrate (GTN) spray (refer *Oxytocin for Induction and Augmentation of Labour* guideline for further detail, see <u>Associated documents</u>).
- Document findings and care plan in the woman's clinical record, including the yellow Labour and Birth Summary.

#### 6.2 Oral Prostaglandin E1 analogue (misoprostol)

**Research summary:** The <u>Cochrane review</u> of oral misoprostol (2014) concluded that compared with vaginal PGE2, oral misoprostol resulted in similar rates of vaginal birth within 24 hours and similar rates of caesarean section (10 RCTs, 3240 women, moderate certainty). The systematic review of IOL with any PG (2015) concluded that the odds of caesarean section were lowest for low-dose titrated oral misoprostol solution (280 RCTs of 48068 women).

Oral administration may have the added benefit of fewer vaginal examinations. Misoprostol for use in cervical ripening for IOL can be regarded and used as a supported indication, as indicated by the National Maternity Monitoring Group (Ministry of Health). Written informed consent is not necessary.

6.2.1 Oral misoprostol protocol

- Ensure CTG was performed and is normal prior to administration.
- Document the woman's verbal consent.
- Site IV cannula and send bloods for full blood count (FBC) and group and screen.
- Position the woman comfortably on the bed, perform vaginal examination, perform stretch and sweep if possible.
- Give first dose of 25 micrograms of misoprostol as prescribed. See dose and management section below; and preparation instructions in Appendix 1.
- 40 minute CTG after the first dose.
- The woman can then mobilise, eat and drink, shower and bathe.
- Inform the woman of expected time of next dose of misoprostol.
- Document abdominal palpation, BS (using sticker), CTG findings (using sticker), and date/time/dose of misoprostol in the woman's clinical record and on Whiteboard.

Follow dosing below:

#### Oral misoprostol dose and management:

- Prescribe on the PRN tab of the National Medication Chart:
   misoprostol 25 microgram two hourly (maximum of eight doses in 20 hours) for IOL
- 20 minute CTG before each subsequent dose, if contracting.
- Give two hourly unless contracting strongly.
- If the woman is contracting strongly two hours after a given dose, wait one hour before vaginal examination (VE). If cervical examination is not favourable continue with next misoprostol dose. If contractions decrease in the hour, give a further dose of misoprostol.



- Note: Assessing whether to perform a VE if the woman is not contracting should be based on the overall clinical picture, however it may be likely that not contracting could mean no VE and continuation of misoprostol pathway. Scenario of regular contractions could mean VE with intent to transfer to Delivery Unit if cervical examination is favourable. If not favourable proceed to next dose of misoprostol. Clinical judgment to guide decision making context.
- ARM may be considered on an individual basis.
- ARM is not required to continue with oxytocin induction. If the woman has a favourable cervix and is in the ARM Trial, transfer to the Delivery Unit should occur for randomisation and further treatment.
- Antibiotic if risk factors for Group B Streptococus GBS (once established/ROM). Refer to guideline: Group B Streptococcus Prevention of Early Onset Neonatal Infection.
- If spontaneous rupture of membranes(SROM )and not contracting, wait two hours and reassess the situation. If the woman is not in labour, continuation with misoprostol pathway or oxytocin is acceptable.

# Maximum number of 25 microgram doses is eight in 20 hours. Allow a 4-6 hour break between each round of eight misoprostol doses.

- Misoprostol given orally has a half-life of 20-40 minutes.
- If hyperstimulation occurs, give acute tocolysis. Refer to the Auckland DHB *Oxytocin for Induction and Augmentation of Labour* guideline for detail regarding administration.

#### The Obstetrician should be notified immediately if any unwarranted effect from misoprostol.

#### 6.3 Transfer to Labour and Birthing Suite

- Repeat doses can continue to a maximum of eight doses in 20 hours OR until:
  - Primip: once regular contractions and Cervical examination that makes oxytocin infusion indicated (this will usually be a Bishop score of 6-8).
  - Multip: has regular contractions and Cervical examination that makes oxytocin infusion indicated (this will usually be a Bishop score of 6 or more).
  - Once the above criteria are met, the woman should transfer to the Labour and Birthing Suite. Some women will go into labour with misoprostol alone. In this case oxytocin infusion is not required. If the woman does not go into labour, oxytocin infusion is indicated.
  - Call LMC when the woman is transferring from Women's Assessment Unit (WAU) to the Labour and Birthing Suite (LBS).
  - Continuous CTG.
  - Maternity Early Warning Score (MEWS) as per established labour protocol/partogram.
    - Oxytocin may used according to Auckland DHB guidelines.

# 7. Balloon catheter

#### 7.1 Balloon catheter protocol

- Auscultate fetal heart.
- Document the woman's verbal consent.



- Set up the procedure room on WAU, position the woman comfortably on the bed in the lithotomy position, offer support and analgesia.
- Perform sterile speculum exam (if difficult, can use larger size speculum, and/or condom to hold back vaginal walls), advance Foley balloon through cervix and *above* internal os, inflate balloon with 50 mL sterile water, then gently pull back until balloon abuts internal os (this also confirms correct placement) – attach spigot to end of catheter, tape balloon to inner thigh on gentle tension while standing.
- Auscultate fetal heart there is no need for a routine post-balloon CTG in the absence of vaginal bleeding.
- The woman can then mobilise, eat and drink, shower and bathe.
- Inform the woman of expected time of subsequent assessment.
- Document abdominal palpation, BS (using sticker), CTG findings (using sticker), and time of balloon in the woman's clinical record (and on Whiteboard).

#### 7.2 Balloon recommended regimen

The balloon should remain in situ for <u>12 to 24 hours</u>. The woman can give a gentle tug every so often to see that it is still in the correct place. After 12 hours the balloon can be removed, and it must be removed by 24 hours at the latest. If ARM is possible, this should be done soon after the balloon is removed. Staffing should be planned accordingly.

If ARM is not possible, review by the Senior Medical Officer (SMO) and consider switching to another method.

#### 8. Artificial rupture of membranes (ARM)

Even if ARM is possible but BS <7, there is research to suggest less postpartum haemorrhage, and greater patient satisfaction, with on-going cervical ripening (compared to early ARM plus intravenous oxytocin). This should be balanced against the risk of hyperstimulation with prostaglandin (dinoprostone gel or misoprostol).

Consider enrolling the patient in **The ARM Trial: Early versus Late Artificial Rupture of Membranes during Oxytocin IOL.** Eligibility: IOL at 37 weeks or more with intact membranes, normal CTG, and cervical exam that makes ARM feasible (on admission or following cervical ripening with prostaglandins or balloon catheter).

ARM can occur on WAU if certain clinical criteria are met, in order to reduce risk of cord prolapse and of precipitous birth on WAU:

- Longitudinal lie, cephalic presentation, and stable presenting part (at least 1/5 descended)
- Cervix dilated less than 4 cm
- Not grand multiparity and no history of precipitous labour.



#### 8.1 ARM protocol

- If PG gel or misoprostol has been used, liaise with LBS CCM re availability of midwife prior to ARM. If balloon has been used, it is acceptable for the ARM to go ahead on removal of the balloon, unless there is anticipated delay of more than 4 hours before a midwife is available.
- Ensure CTG is performed and is normal.
- Ensure the woman's consent.
- Site intravenous cannula and send bloods for full blood count (FBC) and group and screen.
- Perform vaginal examination, perform ARM and check amount and colour of liquor.
- Position the woman comfortably on bed and perform CTG.
- The woman can then mobilise, eat and drink, shower and bathe.
- Inform the woman of expected time of transfer to LBS.
- Document abdominal palpation, BS (using sticker), CTG findings (using sticker), liquor findings, and time of ARM in the woman's clinical record (and on Whiteboard).

Maternal and fetal monitoring can be individualised. A woman can remain on WAU until she establishes in labour.

If there is minimal liquor or it is meconium- or blood-stained, consider further maternal and fetal assessment and transfer to LBS. Consider application of fetal scalp electrode (see Intrapartum Fetal Surveillance policy).

If CTG is abnormal after ARM, perform sterile speculum exam to exclude cord prolapse or imminent birth.

LBS and WAU Clinical Charge Midwife (CCM) should communicate regularly to arrange the transfer of a woman to LBS.

# 9. Oxytocin

Refer to the Auckland DHB Oxytocin for Induction and Augmentation of Labour guideline.

The following two statements are from the 2016 California Toolkit to safely reduce primary caesarean section:

*Failed induction can be defined as cervix < 6cm, unable to ARM, and no cervical change, with 24 hours oxytocin.* 

*If ARM performed and no cervical change for 12-18 hours of oxytocin, consider caesarean section (24 hours of oxytocin is preferable if mum and baby well).* 

#### 10. Audit standards

Gestation at time of booked IOL against guideline standards for SGA, hypertension and post-dates.



# 11. Supporting evidence

- Wise, M. (2019). Induction of Labour in Aotearoa New Zealand A clinical practice guideline, 2019.<u>https://mhsfaculty.auckland.ac.nz/inductionNZ/</u>RANZCOG webinar on Induction of Labour in Aotearoa New Zealand (2020) can be viewed at https://ranzcog.eventsair.com/ranzcog-webinar-nz/archives
- Wise, M. R., Marriott, J., Battin, M., Thompson, J. M., Stitely, M., & Sadler, L. (2020). Outpatient balloon catheter vs inpatient prostaglandin for induction of labour (OBLIGE): a randomised controlled trial. Trials, 21(1), 1-11.Middleton, P., Shepherd, E., Morris, J., Crowther, C. A., & Gomersall, J. C. (2020). Induction of labour at or beyond 37 weeks' gestation. Cochrane Database of Systematic Reviews, (7).
- Middleton, P., Shepherd, E., Flenady, V., McBain, R. D., & Crowther, C. A. (2017). Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more). Cochrane database of systematic reviews, (1).Keulen JKJ, Bruinsma A, Kortekaas JC, et al. Induction of labour at 41 weeks versus expectant management until 42 weeks (INDEX): multicentre, randomised non-inferiority trial. BMJ 2019;364:344.
- Wennerholm U-B, Saltvedt S, Wessberg A, et al. Induction of labour at 41 weeks versus expectant management and induction of labour at 42 weeks (SWEdish Post-term Induction Study, SWEPIS): multicentre, open label, randomised, superiority trial. BMJ 2019;367:6131.
- Ministry of Health. (2012). Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines). Toolkit, A. Q. I. (2016). Toolkit to Support Vaginal Birth and Reduce Primary Cesareans.

# 12. Associated documents

#### Auckland DHB policies and guidelines

- Access Holders in Women's Health (NWH)
- Informed Consent
- Intrapartum Fetal Surveillance Policy
- Intrapartum Care Physiologic Labour and Birth
- Medications Administration
- Medications Allergies & Adverse Drug Reactions (ADRs) Identification, Documentation & Recording
- Medications Intravenous & Infusions Administration CVICU
- Medications Prescribing
- Nursing and Midwifery Handover
- Oxytocin for Induction and Augmentation of Labour
- Rupture of Membranes in Pregnancy
- Diabetes in Pregnancy
- Small for Gestational Age and Fetal Growth Restriction from 34 weeks Detection and Management
- Hypertension Antenatal, Intrapartum and Postnatal



#### Other

• Women's Health Escalation Plan

#### Auckland DHB clinical forms

- CR2251: Elective Induction of Labour (IOL) Booking Request Form
- CR2252: Acute Induction of Labour (IOL) Bookings required within 24 hours
- CR3509: Secondary Referral form
- CR2297: Referral for Post Term Virtual Consultation

#### **Patient information leaflets**

- Induction of Labour (Auckland DHB)
- Term pre-labour rupture of membranes Information for women at term (37 or more weeks) (Auckland DHB) https://www.nationalwomenshealth.adhb.govt.nz/assets/Womenshealth/Documents/Pregnancy/Pre-Labour-Rupture-of-Membranes.pdf

### 13. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this Auckland DHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

# 14. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed **before** the scheduled date, they should contact the owner or <u>Document Control</u> without delay.



g

# Appendix 1: Preparation of Oral Misoprostol for Cervical Ripening

Preparation of oral misoprostol for cervical ripenin				
Ingredients	Quantity			
Pair of non-sterile examination gloves	1			
2.5 mL enteral syringe (purple)	1			
Plastic medicine cup	1			
Water for injection 10 mL ampoule	2			
Misoprostol 200 microgram tablet	1			

- A new suspension must be prepared for each dose
- Prepare in a clean area on the ward (e.g. the medication room)
- Administer dose of misoprostol immediately after preparation

#### Preparation instruction:

- 1. Put on gloves
- 2. Place misoprostol 200 microgram tablet in an empty, patient labelled medicine cup
- 3. Empty the contents of 2 x 10 mL water for injection ampoules into the medicine cup
- 4. Use the 2.5 mL enteral syringe, mix until the tablet is fully dispersed [This gives a misoprostol suspension of approximately 200 microgram/20 mL (10 microgram/mL)]
- 5. Using the 2.5 mL enteral syringe, stir & simultaneously draw up 2.5 mL of the suspension *[It is important to ensure that some of the tablet precipitant is also drawn up into syringe (misoprostol may be entrapped or absorbed into the cellulose power that cannot be released into water)]*
- 6. Label the oral syringe as per local requirements (e.g., medicine, dose, route, patient's name)
- 7. Shake the syringe well immediately prior to administering the dose
- 8. Discard the remaining suspension in the medicine cup
- 9. Keep the labelled medicine cup & 2.5 mL enteral syringe for future doses. [Discard these if patient no longer requires misoprostol suspension]