# **CSDS**



# Obstructed labour and impacted fetal head

Facilitator resource kit

The resources developed for MEP are designed for use in any Queensland Health facility that care for women who are pregnant/birthing or postnatal. Each resource can be modified by the facilitator and scaled to the needs of the learner as well as the environment in which the education is being delivered, from tertiary to rural and remote facilities.

















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Gendered language: This program uses terms such as 'women', 'woman,' and 'mother', however we recognise that not all pregnant individuals identify as women and acknowledge the challenges faced by these individuals in accessing maternity care. When using these terms, we do so in a way that reflects the experiences and identities of the majority of those who are pregnant and do not seek to exclude any individual capable of childbearing irrespective of gender identity. All individuals seeking maternity care should receive personalised, respectful care, including the use of preferred gender pronouns.







CSDS acknowledges the Traditional Custodians of the Land upon which we live, work and walk, and pay our respects to Elders both past and present.



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Share your feedback
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# **Learning outcomes**

The content in this learning resource supports learners to:

- apply active listening and open communication strategies to facilitate respectful maternity care and support the woman's active involvement in decision-making
- apply shared decision-making principles in the planning and implementation of maternity care
- identify key risk factors associated with obstructed labour
- detect delays in labour progress and initiate timely escalation of care
- reflect on the impact of timely interventions on maternal and neonatal outcomes in obstructed labour scenarios
- work collaboratively with the woman and maternity team to effectively manage obstructed labour and impacted fetal head.

## **Purpose**

This resource kit is designed to support the delivery of CSDS's Maternity Emergency Program (MEP).

#### It includes:

- pre-reading materials on obstructed labour and impacted fetal head
- a facilitator's guide for conducting a case study on obstructed labour
- instructions for facilitating a skills station on impacted fetal head
- supporting documents to aid in the effective delivery of the program.

# Pre-reading – obstructed labour

### **Overview**

Obstructed labour occurs when, despite strong and effective uterine contractions, there is no further progress in labour due to a mechanical obstruction. If not recognised and managed promptly, this intrapartum complication can lead to increased rates of maternal and neonatal morbidity and mortality.<sup>1</sup>

The release of <u>Queensland Health's clinical guideline for prolonged and/or obstructed Labour</u> underscores the importance of identification, appropriate intervention, and clear communication pathways. <sup>2</sup> If prolonged or obstructed labour is suspected, assessment by an obstetrician is indicated.

A key consideration in the context of obstructed labour is the national priority to safely reduce the rising caesarean section rate.<sup>3</sup> Efforts to increase a woman's chances of a successful vaginal birth must always be carefully balanced against the potential complications associated with obstructed labour and the woman's individual preferences for birth. This underscores the importance of prevention strategies that begin well before labour commences. A holistic, woman-centred approach is essential; one that includes continuity of carer whenever possible, adherence to the recommended schedule of antenatal care, timely clinical escalation of care when indicated, and informed discussions about supporting physiological birth.

In Australia, access to skilled maternity clinicians is generally high. However, timely recognition and escalation of care remain critical, particularly in remote and rural settings where transfer times may be prolonged and access to skilled clinicians can be limited. Maternal and infant death rates are significantly higher in remote areas of Australia.<sup>4</sup>

Providing maternity care in resource limited settings provides additional challenges, such as:

- limited access to specialised services (antenatal care, intrapartum birthing services, postnatal care, general healthcare services and emergency care)
- transport and travel challenges
- staffing shortages
- cultural and language barriers

This highlights the importance of early detection, appropriate escalation and use of available resources. Retrieval Services Queensland (RSQ) plays a vital role in bridging the gap between remote communities and tertiary care.

# **Overarching maternity care principles**

#### Woman-centred care

'Woman-centred care ensures the woman has choice and control in her childbearing experience. Relationships built on reciprocal trust and respect foster empowerment, which recognises the woman's innate ability to meet her own needs.'5

Core principles include:

- dignity and respect: Recognising the woman as a whole person, and not as a patient or number
- individualised care: Tailoring services to fit the woman's needs, not fitting the woman into pre-designed packages
- informed choice: Supporting women to make decisions based on clear, evidence-based information
- strengths-based approach: Focusing on the woman's abilities, aspirations, and goals
- relational care: Building trusting relationships between the woman and her care providers
- continuity of carer: Ensuring the woman sees the same provider or team throughout her maternity care journey.

# **Continuity of care**

The World Health Organization (WHO) recommends continuity of midwifery care for all women globally, particularly within well-established maternity care systems.<sup>6</sup> High-quality evidence reports that women receiving midwifery-led continuity models are less likely to undergo unnecessary interventions and report higher satisfaction with their care.<sup>7,8</sup> These models promote consistent and meaningful communication between a woman and their midwife, enabling them to act as effective clinical advocates. Midwifery continuity of care has also been associated with improved perinatal outcomes including a reduction in premature birth, still birth and neonatal death and a lower chance of dying (including all deaths before and after 24 weeks gestation and neonatal deaths).<sup>9</sup>

Working within a collaborative, supportive maternity model with clear escalation pathways for obstetric care, provides women with a sense of safety, timely access to specialist input when required, and continuity in decision-making. This integrated approach ensures that care remains woman-centred, even in complex clinical situations such as obstructed labour, and supports optimal outcomes for both mother and baby. By fostering trust, communication, and collaboration across disciplines, maternity clinicians can uphold the principles of respectful care while navigating clinical complexity.

#### **Shared decision-making**

Every woman deserves to be heard, respected, and supported in her birth choices. The Australian Commission on Safety and Quality in Health Care describes their views on shared decision-making on their website:

Shared decision-making involves discussion and collaboration between a consumer and their healthcare provider. It is about bringing together the consumer's values, goals and preferences with the best available evidence about benefits, risks and uncertainties of treatment, in order to reach the most appropriate healthcare decisions for that person.

•••

Shared decision-making is an important part of delivering person-centred care, which underpins the principles and expectations of the National Safety and Quality Health Service (NSQHS) Standards.<sup>10</sup>

The 2024 NSW Birth Trauma Inquiry revealed that 28% of women reported experiencing birth trauma, with many describing a profound sense of powerlessness and loss of control when excluded from decision-making during their maternity care. A recurring theme was that women's concerns were often dismissed or inadequately addressed, contributing significantly to their trauma. These findings highlight the critical role of shared decision-making in preventing birth trauma and promoting respectful, woman-centred care. Maternity care providers have a responsibility to communicate effectively with women and each other. Doing so can help avoid unnecessary perinatal morbidity and mortality, support informed consent and reduce incidences of birth trauma.

Effective communication not only ensures that women feel heard, respected, and actively involved in decision making, it helps gather valuable clinical information. While women may not be medical experts in maternity care, women have deep knowledge of their own bodies, lived experiences, and unique insights into their pregnancies. It is therefore essential that we listen carefully to their concerns and never ignore or dismiss them.

#### What does shared decision-making look like in practice?

Shared decision-making is not a one-time event. It is a continuous process that requires regular communication as new information arises or risks emerge. You can implement shared decision-making by:

- keeping women informed about their progress and involving them in their plan of care
- asking questions such as:
  - Can you tell me what is concerning you right now?
  - Is there any information that you have shared or received, that you feel is not being addressed?
  - Are there aspects of your care that you are unsure about or want to discuss further?

All discussions around education, information provision, and consent should be clearly and accurately documented. These discussions should include the risks and benefits of interventions, and any limitations of the health service. (e.g. anaesthetic or theatre availability and potential delays in access in rural and remote locations).

#### **BRAINS**

The BRAINS acronym can be a useful tool for clinicians to utilise with the woman/family receiving care to support them with shared decision-making and informed consent.

**B**enefits: Take the opportunity to discuss anticipated positive outcomes of a proposed intervention, test or recommendation. Highlight the benefits for both the mother and the fetus, ensuring that evidence-based information is tailored to the needs of the woman.

**R**isks: Review and discuss with the woman possible adverse effects, complications, or unintended consequences, with attention to evidence, guidelines and context-specific risks.

Alternatives: Provide the woman with alternate care pathways so she can weigh other evidence-based options available, including variations in timing, methods or approaches.

Intuition: Acknowledge the woman's intuition and personal sense of what feels right for her body and baby. At the same time, draw on your professional intuition, grounded in experience, pattern recognition and clinical judgement.

**N**othing: Explain the safety, risks and parameters of expectant management, allowing the woman to then consider what it means to delay or decline intervention and whether that feels acceptable to her.

**S**pace: Create an environment where the woman can reflect, discuss her options and ultimately make an informed decision. In time-critical situations, clear and respectful communication is essential. Whenever possible, high-pressure decisions should be avoided by providing prior education and open communication. This can help prevent the woman from feeling rushed or pressured into making an uninformed choice in an emergency.

The BRAINS framework aligns with shared decision-making principles and encourages the clinician to provide balanced information about potential interventions. It invites woman's values and preferences into the conversation, while also supporting autonomy and informed consent.

### **Teamwork and communication**

Multidisciplinary teamwork has the potential to significantly improve outcomes in maternity emergencies by fostering collaboration, enhancing situational awareness and ensuring a timely and coordinated response. Shared knowledge, goals and respect underpin successful teamwork behaviours. Effective communication in healthcare is essential. Using structured communication tools such as ISBAR and PACE aids clear and concise communication between clinicians.

#### **ISBAR**

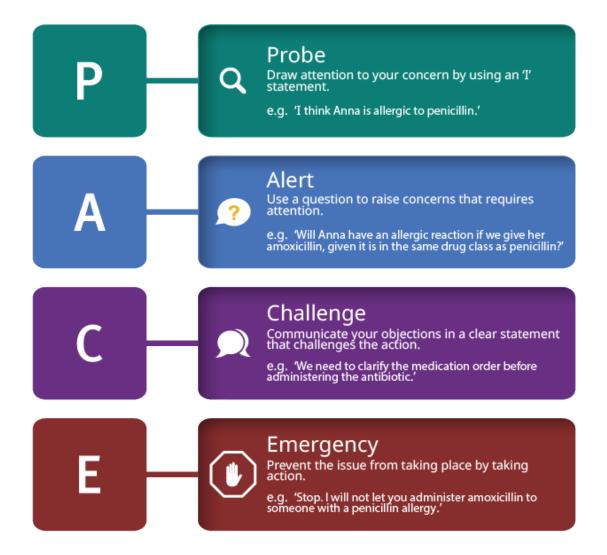
*ISBAR* is a structured communication tool used in healthcare to ensure clear, concise, and effective information exchange, particularly during clinical handovers, emergencies, and interprofessional communication.

- I Identify: Introduce yourself, your role and the woman.
- **S- Situation:** Describe the current situation or reason for the communication.
- **B- Background:** Provide relevant background information about the woman.
- A- Assessment: Share your clinical assessment or observations.
- **R- Recommendation:** State what you are requesting or what needs to happen next and the timeframe

#### **PACE**

*PACE* is a graded assertiveness communication tool that can aid health professionals to speak up and challenge any behaviours or actions they may feel is compromising someone's care, no matter their level of qualification or amount of experience.

PACE can support safe communication by giving maternity clinicians the framework to escalate concerns effectively and respectfully in high-pressure environments.



By progressing through the levels of **Probe**, **Alert**, **Challenge**, and **Emergency**, clinicians can raise concerns incrementally, ensuring that emerging issues are addressed early, before they escalate into harm. This approach fosters a culture of psychological safety, where all team members feel supported to voice concerns, and promotes collaborative teamwork through open dialogue and shared responsibility. Ultimately the use of PACE contributes to safer maternity care by ensuring that the woman's wellbeing remains central to her care.

# Prolonged and/or obstructed labour

*Prolonged labour* is commonly understood to mean slow but progressive cervical dilation or descent, while *obstructed labour* is complete arrest of progress despite adequate uterine activity.

# Factors affecting progression of labour

Aspect	Consideration	
Hypocontractile	Advanced Maternal Age*	
uterine activity	Obesity**	
	Nulliparity**	
	Diabetes complicating pregnancy*	
	Uterine abnormality	
	Tocolytics, relaxants	
	Neuraxial anaesthesia*	
	Dehydration	
Pelvic factors	Short stature (less than 150-160cm)**	
	Pelvic contraction/injury or abnormality (e.g. narrow subpubic arch, prominent sacrum)**	
Fetal factors	Fetal anomaly resulting in cephalopelvic disproportion (CPD)*	
	Positions other than occiput anterior**	
	Malpresentation*	
	Large for gestational age, macrosomia, increased fetal abdominal circumference	
Other	Previous obstructed labour	
	Psychological state (fear of childbirth, anxiety, exhaustion)	

Adapted from: Queensland Clinical Guideline: Prolonged and/or obstructed labour - short guide, 2025

# Outcomes associated with prolonged and/or obstructed labour

Maternal	Neonatal
<ul> <li>Operative interventions (instrumental vaginal birth, caesarean birth)</li> <li>Chorioamnionitis, endometritis</li> <li>Obstetric anal sphincter injury</li> <li>Obstetric fistula (rare in developed countries)</li> </ul>	<ul> <li>Admission to a neonatal unit</li> <li>Respiratory distress syndrome</li> <li>Confirmed or suspected sepsis</li> <li>Birth asphyxia-related complications, which progressively increase with duration of first or second stage</li> </ul>
<ul> <li>Primary postpartum haemorrhage</li> <li>Postpartum urinary retention</li> <li>Uterine rupture</li> <li>Psychosocial/psychological sequalae</li> </ul>	<ul> <li>Birth injury (e.g. fractures of skull, clavicle, femur)</li> <li>Fetal/neonatal death may occur</li> </ul>

Adapted from: Queensland Clinical Guideline: Prolonged and/or obstructed labour - short guide, 2025

#### What can women do to reduce the chances of obstructed labour?

Women can play an active role in reducing the risk of obstructed labour by prioritising their health and wellbeing throughout pregnancy. The following are strategies that support physiological labour.

## Attend regular antenatal appointments

Consistent care from qualified maternity clinicians enables early identification of risk factors and provides opportunities for counselling and tailored support.

#### Support optimal fetal positioning

Evidence suggests that techniques promoting optimal fetal positioning can improve the baby's alignment with the pelvis, facilitating a smoother labour.<sup>16</sup>

### Maintain nutrition and hydration during labour

Good nutrition and hydration help sustain effective uterine contractions, supporting the body's ability to progress through labour naturally.

#### Delay hospital admission until active labour

Research shows that admission to hospital before labour is well established is associated with increased interventions, including caesarean sections for fetal distress and obstructed labour. Waiting until active labour begins may reduce these risks.<sup>17</sup>

#### Mobilise and use upright positions during labour

A Cochrane systematic review of 25 trials involving 5,218 women found that upright positioning and mobilisation during the first stage of labour reduces the length of labour and the risk of caesarean birth, without negative effects on maternal or infant wellbeing.<sup>18</sup>

#### Be informed and involved

Educating women about the evidence supporting normal birth empowers them to take an active role in their care. Informed decision-making enhances confidence, reduces anxiety, and promotes better outcomes.

#### What can clinicians do to reduce the chances of obstructed labour?

In addition to supporting women with the above strategies, Dr Sarah Buckley's work on the physiology of childbearing demonstrates that optimal physiology of birth is supported best within environments in which women feel private, safe and undisturbed. While Dr Buckley acknowledges that this can be challenging in a hospital environment, small changes can make a big difference to how a woman feels in her birthing space which then has a ripple effect into how a woman's hormones respond during labour and birth.

#### Create a calm environment

Use dim lighting, close doors, and draw curtains to reduce noise and enhance privacy - helping to create a nest-like space.

### **Enable continuity of care models**

Minimise changes in caregivers to foster trust, increase feelings of safety, and reduce unnecessary traffic in and out of the room.

#### Limit interventions

Avoid unnecessary procedures and ensure that essential maternal and fetal monitoring is performed as unobtrusively as possible.

#### Foster respectful communication

Encourage positive, clear, and compassionate interactions between the woman and her care providers to support autonomy and emotional wellbeing.

A Cochrane meta-analysis of trials involving over 15,000 women demonstrated one-on-one continuous labour and birth support improves outcomes for women and babies, including:

- increased spontaneous vaginal birth and decreased labour duration
- caesarean section rates
- intrapartum analgesia use
- lower instrumental birth rates
- low five-minute Apgar scores.<sup>20</sup>

One-on-one labour and birth care also showed women were less likely to report negative ratings or feelings about their childbirth experience.<sup>20</sup>

# Identification and management of obstructed labour

Recognition of obstructed labour involves understanding the patterns of normal labour, how to facilitate it, and methods for detecting deviations from these normal patterns. Clinical assessments of abdominal station and contraction strength and frequency all serve to guide clinicians as to the progress of women's labour. The use of visual tools such as a contemporaneous partogram and action lines may support the recognition of a delay or arrest in the progress of labour. The WHO emphasises the importance of monitoring caput to support the recognition of cephalopelvic disproportion and not relying purely on cervical dilation as women may labour at different speeds of progress and early interventions may have a negative impact on labour outcomes.<sup>21</sup>

## The five Ps of labour progress

The five Ps is a useful framework for clinicians to consider when assessing labour progress and potential factors that may be influencing the slowing or absence of progress.

**Power** – the uterine contractions and maternal pushing efforts

Passage – the maternal pelvis and soft tissues

**Passenger** – the fetus, including size, position and presentation

**Positioning** – any maternal movement and positioning in labour

**Psyche** – the emotional and psychological state of the woman.<sup>22</sup>

This framework encourages a holistic and systematic approach to labour assessment, extending beyond cervical dilation to include emotional, psychological and positional influences. It provides a shared language for clinical communication, supports early identification of concerns, and promotes non-invasive strategies (such as movement and emotional support) before initiating medical interventions.

For more information on assessing the progress of labour see *Queensland Clinical Guideline: Normal birth.* 

#### Key clinical signs of potential obstructed labour

- Prolonged active phase of labour (defined as <2cm progress in 4 hours, as per Queensland Clinical Guideline: Normal birth)
- Lack of descent despite good contractions
- Slowing/ceasing of cervical dilation
- Oedematous cervix
- Oedematous vulva<sup>23</sup>
- Hypertonic contractions
- Maternal exhaustion or distress
- Maternal pyrexia
- Maternal and/or fetal tachycardia
- Haematuria
- Constant severe abdominal pain
- Fetal distress/abnormal CTG
- Bandl's ring (see clinical note below).

### **Initial management**

The management of obstructed labour requires a prompt and comprehensive assessment by a senior obstetric clinician. This includes:

- reviewing the woman's obstetric and medical history
- assessing her current clinical presentation
- performing a thorough clinical examination
- initiating increased maternal and fetal surveillance
- considering of additional clinical interventions as appropriate
- early recognition and timely intervention are critical to reducing maternal and neonatal morbidity.

Clear, structured communication and escalation are essential. The unit team leader should be regularly updated on the care and progress of all women in the birthing unit. In rural and remote settings, this role may be fulfilled by a hospital coordinator or a General Practitioner Obstetrician (GPO).

If there are increasing signs suggestive of obstructed labour:

- promptly discuss the findings with the team leader
- escalate to the most senior obstetric doctor
- refer to Queensland Clinical Guidelines Short Guide: Prolonged and/or obstructed labour
- consult with RSQ if further clinical guidance is needed.

#### Flowchart: Prolonged and/or obstructed labour

#### Prolonged or obstructed labour is suspected Refer to Queensland Clinical Guideline: Normal birth Assessment Risk factors Hypocontractile uterine activity Review · Clinical history, risk factors Advanced maternal age Obesity · Progress expected for Nulliparity Parity · Uterine abnormality o Onset, phase/stage of labour o Presence/absence of neuraxial · Tocolytics, relaxants · Neuraxial anaesthesia anaesthesia Dehydration o Fetal position/condition o Physical and emotional state Pelvic Short stature (< 150-160 cm)</li> · In second stage consider Pelvic contraction, injury, o Duration (passive and active) Review clinical abnormality o Descent/rotation of fetal head circumstances Clinical examination Fetal Escalate as · Fetal anomaly · General condition (e.g. distress, required · Positions other than OA pain, hydration) Malpresentation Maternal vital signs LGA · Abdominal palpation · Uterine contractions · Previous obstructed labour · Vaginal examination · Distress, anxiety, exhaustion · Cardiotocograph (CTG) Clinical presentation Surveillance · One-to-one midwifery care Intrapartum fetal surveillance · Maternal/fetal tachycardia · Risk of PPH at birth · Elevated temperature Care (as indicated) · Oedematous vulva · Urinary catheter · Vaginal bleeding Analgesia Haematuria Positioning · Hypertonic uterus Hydration Constant/severe abdo pain Intrapartum USS Augmentation (1st stage) Expedite vaginal birth (2nd stage) Caesarean (as indicated) May be considered May be considered Consider · After consultation with After assessment · Risk and benefit If no contraindications obstetrician · Clinical history and presentation If reassuring fetal/maternal Options Preparation status Amniotomy · Communicate with colleagues Oxytocin (caution if multiparous) Options Equipment/resources Manual rotation Amniotomy · Possibility of anatomical Episiotomy Oxytocin (caution if multiparous) distortion at incision · Instrumental vaginal birth Prepare/consider possibility of: Impacted fetal head Bandl's ring Uterine relaxants · Fetal pillow · Maintain index of suspicion if Terbutaline prolonged/obstructed and · Disimpaction techniques o 250 microgram subcutaneous Lack of advancement of fetal Change of operator Glyceryl trinitrate o 400 mg sublingual spray o Abdominal cephalic station during instrumental disimpaction vaginal birth 50–100 microgram IV Multiple pregnancy Reverse breech extraction Salbutamol Patwardhan method Uterine rupture suspected 100 mg IV Manual fetal elevation

IV: intravenous, LGA: large for gestational age, OA: occiput anterior, PPH: postpartum haemorrhage, USS: ultrasound scan, <: less than

Source: Queensland Clinical Guidelines: Prolonged and/or obstructed labour (2025)

# Clinical note: Bandl's ring

## What is a Bandl's ring?

*Bandl's ring*, also known as a pathological retraction ring, is a rare but serious obstetric complication that occurs during obstructed or prolonged labour. It typically forms at the level of the umbilicus, at the junction between the thickened, retracted upper uterine segment and the overstretched, thinned lower segment.<sup>24,25</sup> This abnormal constriction may present as a visible or palpable indent across the abdomen and can impede labour progression by entrapping the fetus.

#### Incidence and risk factors

Due to its rarity and the absence of standardised diagnostic criteria, precise incidence data is limited and is likely under reported.<sup>26</sup> Historical estimates suggest Bandl's ring occurs in approximately 1 in 5,000 births.<sup>27</sup> However, its prevalence may be higher in low-resource settings where delayed access to obstetric care increases the risk of obstructed labour. Contributing factors include prolonged labour, labour dystocia, and inadequate uterine relaxation.

Clinicians should be aware of the look and feel of a Bandl's ring when performing an abdominal palpation. The incorporation of bedside ultrasound into the medical assessment of obstructed labour may aid the detection of Bandl's ring and allow for earlier appropriate intervention and minimise risks associated with delayed or inappropriate intervention.<sup>27</sup>

#### **Clinical implications**

Although uncommon, Bandl's ring is associated with significantly high rates of neonatal morbidity and mortality.<sup>28</sup> Potential complications include uterine rupture and fetal entrapment during caesarean birth. Prompt recognition and intervention are critical to prevent adverse outcomes and increasing evidence supports the use of bedside ultrasound to diagnose Bandl's ring in obstructed labour. Management may include surgical delivery, extension of the uterine incision and pharmacologic uterine relaxation to facilitate safe extraction of the fetus.

### Management of Bandl's ring

- Operative birth
- Tocolytics
- Extension of incision

#### Recognising risk in maternity care

As clinicians, one of the challenges of our work is taking all the information we have gathered in our clinical assessments, history taking, communication with women and their families and bringing it all together as a health system to provide the right care at the right time, with the right people, in the right place.

When adverse outcomes occur it is not always one contributing factor that causes the incident; there are often an array of factors across the service that are interrelated that result in a particular individual's care being affected. Ultimately, the woman is at the centre of her care and as clinicians we need to consider the full history and clinical picture, contextualise the information to the health service, actively listen to the needs, values, preferences and circumstances of the woman, present well balanced evidence-based information, and then allow the woman to make an informed decision that is right for her.

# **Shared decision-making process**

This visual aid has been designed to support clinicians to navigate woman-centred care and shared decision-making. It can be used in the clinical space to bring information together and highlights the importance of involving the woman in all aspects of her care.



Follow the shared decision-making process and consider each of the following areas when making clinical decisions:

#### Woman-centred care

- Review history and pregnancy records first, before clarifying with the woman
- Actively listen to the woman consider the woman's individual needs, values, preferences and circumstances
- Respect the woman's intuition and gut feelings

#### **Clinical assessment**

- Conduct observations and document findings
- Use standardised assessment tools (i.e. Q-MEWT, partogram)
- Identify relevant risk factors

#### Clinical considerations

- Consider the woman's holistic picture
- Honour your clinical experience and intuition
- Consult with multidisciplinary team members (as required)
- Apply evidence-based research, professional standards and guidelines (NMBA, RANZCOG, ACM)

### **Shared decision making**

- Use tailored, open and honest communication
- Discuss recommendations including the benefits and risks
- Ensure adequate information is provided to enable informed consent and informed decision making
- Respect the woman's preferences, goals and decision-making rights

#### Implement plan of care

- Document the plan in the maternity care notes
- Confirm with the woman that it reflects her decisions and preferences
- Communicate with greater maternity team (as required)
- Action decisions made with the woman

# **Reflection points**

Tak

Take a	moment to consider and answer the following questions for your own reflection.
	Have you ever felt empowered to call for review or escalate care if your clinical judgement made you concerned – even when the observations and/or cardiotocograph (CTG) are normal?
	Can you describe a time when you were able to recognise a woman was more unwell than what the numbers suggested?
	Has there been a time when someone you were caring for felt they weren't being listened to by a care provider and you advocated for that individual?
•	What are some obstacles to escalating care in your workplace?
	What are some suggestions to overcome or improve access to the right people when escalating care?
	What are some barriers to effective communication and how could this affect a woman's care?
•	What processes does your facility use to ensure timely escalation in your clinical setting?
Notes:	

## **Summary**

This resource highlights the critical importance of a holistic, woman-centred approach when obstructed labour is suspected. Strong clinical knowledge and skills are essential for best practice, and this resource underscores the value of midwifery-led continuity of care, shared decision-making and effective communication. By integrating theoretical knowledge with practical application, clinicians are better equipped to provide respectful, evidence-based maternity care. Prioritising these principles can help reduce the incidence and impact of birth trauma in Australia. As maternity care providers, we play a pivotal role in supporting women through obstructed labour by combining expert clinical skills with compassionate, psychologically supportive care.

# **Pre-reading: Impacted fetal head**

Impacted fetal head (IFH) is a maternity emergency that occurs when the fetal head is deeply wedged into the maternal pelvis, making it extremely challenging to birth the head in a caesarean section.<sup>29</sup> This situation can create a vacuum-like seal between the fetal head and the maternal pelvis, caused by tight engagement and soft tissue compression. If not managed effectively, IFH can result in significant maternal and fetal morbidity and mortality.<sup>25</sup>

There is supporting evidence that junior clinicians are more likely to diagnose IFH and employ advanced techniques to disimpact the fetal head.<sup>30</sup> This may be due to less exposure and experience managing IFH, reduced confidence in their clinical judgement, or a lack of senior support when an IFH is suspected or diagnosed. Midwives also report a lack of training on IFH and how to perform manoeuvres safely.<sup>25,31-32</sup>

Given the urgency and complexity of this situation, it is essential that all maternity staff who may be called upon to assist in disimpaction are trained in the recognition and management of IFH. Once impaction is identified, there is limited time to respond, and the skill and preparedness of the clinician can significantly influence maternal and neonatal outcomes: either positively or negatively.

#### Maternal risk factors for IFH

- Primiparous
- No previous caesarean section
- Gestational age >37 weeks
- Birth weight >4kg
- Epidural analgesia
- Augmentation with oxytocin
- Prolonged second stage
- Second-stage caesarean section

#### Fetal risk factors for IFH

- Malposition
- Mid or low-cavity station
- Caput
- Moulding

## Recognition

- Lack of head descent despite strong contractions. The head may feel fixed and immobile, often at or below the ischial spines.
- Recognition more commonly occurs once there is difficulty in birthing the fetal head during caesarean section. The surgeon will find it difficult to insert a hand between the fetal head and the uterine wall and if able to insert a hand, will have difficulty elevating the head.

#### **Management of IFH**

There are a number of techniques available to clinician's when IFH is anticipated or diagnosed. These can be categorised into:

- techniques from below, or *push* techniques, that involve elevating the fetal head from the direction of the vagina. These include fetal head elevation with Fetal Pillow<sup>®</sup> and manual fetal head elevation.
- techniques from above, or *pull* techniques, that involve disimpacting the fetus from the direction of the hysterotomy such as abdominal cephalic disimpaction, reverse breech extraction and Patwardhan's method
- tocolytics (uterine relaxants) such as terbutaline, glyceryl trinitrate (GTN) and salbutamol (see *Queensland Clinical Guidelines: Prolonged and/or obstructed labour*).

#### Note:

- Augmentation with syntocinon may further impact the fetal head and should not be introduced once obstructed labour is diagnosed.
- Unsuccessful attempts at an instrumental birth can lock the head further into the pelvis.
- If requested, the Fetal Pillow<sup>®</sup> is inserted prophylactically prior to caesarean section.
- At any point, a change of clinician should be considered to aid in the disengagement of the impacted fetal head.

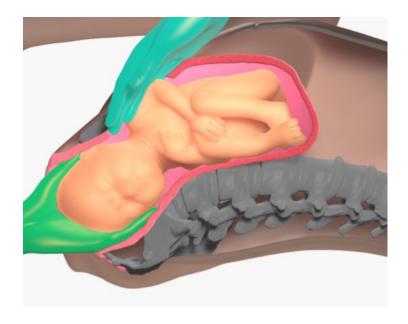
Let's look at these techniques a little more closely.

#### Fetal Pillow®

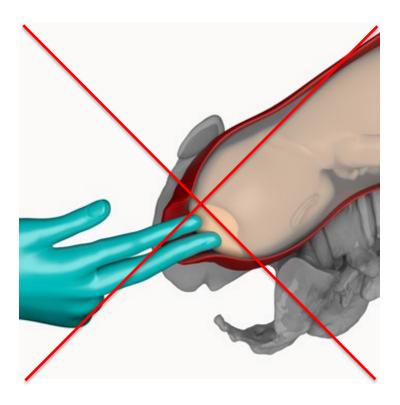
Fetal Pillow® is a balloon cephalic elevation device that can be used at caesarean sections over 37 weeks at full dilation. It involves inserting fluid into a balloon to gently elevate the fetal head. While there is wide-spread use of the Fetal Pillow®, there is currently a lack of high-quality scientific evidence to show whether the fetal pillow improves outcomes for the woman or the baby.<sup>33</sup> The only published clinical trial was retracted due to inconsistencies in the results, highlighting the need for more robust, high-quality evidence to support its effectiveness across diverse clinical settings. While further research is being undertaken, there are currently no major safety concerns<sup>34</sup> and the *Queensland Clinical Guideline: Prolonged and or obstructed labour* advises that fetal head elevation may be considered at a full dilation caesarean section, suspicion of IFH, or unsuccessful instrumental birth.

Watch this video from CooperSurgical for an explanation on how to use the Fetal Pillow®: <a href="https://youtu.be/NOYpIzRzx0o?si=4cqaFRrcMBEEdIji">https://youtu.be/NOYpIzRzx0o?si=4cqaFRrcMBEEdIji</a>

# Manual fetal head elevation (push method)



The push technique is where an assistant's hand is inserted into the vagina and the fetal head is displaced superiorly using the palm of the hand, while the surgeon attempts to flex and elevate the head into the hysterotomy.



Do not use direct digital pressure, this increases the risk of a fetal skull fracture.

# **Abdominal cephalic disimpaction**

This is a technique used at caesarean section to elevate the fetal head towards the mother's head. The goal is to flex and lift the head out of the pelvis, avoiding excessive traction or force. Proper flexion of the head is crucial as it presents the smallest antero-posterior diameter.<sup>19</sup> Deflexion of the head can cause worsening of the impaction by pushing the head further behind the pubic symphysis.

Figure 1 External view



Figure 2 Internal view



#### **Reverse breech extraction**

This is a technique used at caesarean section where instead of attempting to lift the fetal head out of the pelvis, the surgeon reaches into the uterus and grasps the baby's feet. The feet are delivered first and the impacted fetal head is delivered last.

This technique may be preferred when the IFH cannot be dislodged by other vaginal or abdominal methods, or when vaginal access is limited or not feasible.

Figure 4 Internal view

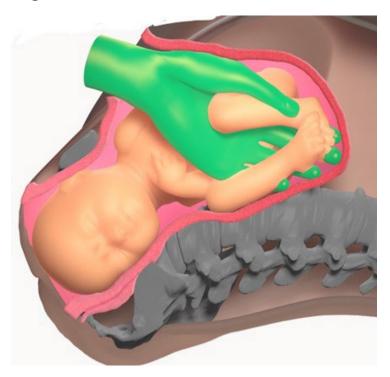


Figure 3 External view



### Patwardhan's method

This method is also used during second-stage caesarean sections where the head is deeply impacted. It involves delivering the baby by first delivering the shoulders, then secondly the body, and lastly the head. It may be used when other methods have been unsuccessful, or if the fetal shoulders are easily accessible.







#### **Uterine relaxants**

The use of tocolytics can be used as an adjunct to other methods as they relax the uterus and reduce the strength of uterine contractility.

The choice of tocolytics will be based on individual circumstances, prescriber familiarity and health facility availability. It is important to note that uterine relaxants increase the risk of atonic postpartum haemorrhage.

The <u>Queensland Clinical Guidelines: Prolonged and/or obstructed labour</u> provides the following options:

- Terbutaline 250 micrograms subcutaneously
  - Terbutaline is a risk factor for neonatal hypoglycaemia
- Glyceryl Trinitrate (GTN)
  - 400 microgram sublingual spray

or

- 50-100 microgram intravenous (IV)
- Salbutamol 100 microgram IV.<sup>2</sup>

#### **Summary**

Impacted fetal head is a complex and time-critical obstetric emergency that requires prompt recognition and skilled management to prevent serious maternal and neonatal harm. Risk factors span maternal, fetal, and clinical domains, with second-stage caesarean sections and fetal malposition being particularly significant. Junior clinicians and midwives often report limited exposure and training in IFH, highlighting the need for targeted education and simulation-based skill development.

Effective management relies on timely identification, appropriate technique selection, and collaborative teamwork. Techniques such as fetal head elevation must be understood and practiced by all staff who may be called to assist. The use of uterine relaxants and devices like the Fetal Pillow® should be quided by clinical judgement and current guidelines.

Ultimately, improving preparedness and confidence among maternity care providers can enhance outcomes and reduce the trauma associated with IFH for both women and babies.

# **Further resources:**

Queensland Clinical Guidelines – Instrumental Vaginal Birth	
Author	Queensland Health
Link	Short guide: Instrumental vaginal birth

RANZCOG	– Clinical guidance statement: Delivery of fetus at caesarean birth
Author	RANZCOG
Link	Delivery-Fetus-Caesarean-Birth.pdf

Prompt Flex Enhanced C Section Module Video	
Author	Limbs & Things
Link	<u>The Enhanced C Section Module for Birth Simulator PROMPT Flex - YouTube</u>

Caesarean Section for deeply impacted head video. (Demonstration of techniques)	
Author	MedNav
Link	Caesarean Section for deeply impacted head

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# **Glossary**

**AC (Abdominal Circumference)**: A fetal biometric measurement used in ultrasound to estimate fetal size and growth.

**Apgar:** A quick test performed on a newborn at 1 and 5 minutes after birth to assess heart rate, respiration, muscle tone, reflex response, and colour.

**Bandl's Ring:** A pathological retraction ring that can form during obstructed labour, indicating uterine rupture risk.

**BSL (Blood Sugar Level):** A measure of glucose concentration in the blood, important in monitoring gestational diabetes.

BMI (Body Mass Index): A measure of body fat based on height and weight.

BP (Blood Pressure): The pressure of circulating blood on the walls of blood vessels.

**BRAINS Acronym:** A decision-making tool for consumers receiving maternity care: Benefits, Risks, Alternatives, Instinct, Nothing, Space.

**BSL (Blood Sugar Level):** A measure of glucose concentration in the blood, important in monitoring for gestational diabetes.

**Continuity of Midwifery Care:** A model where a woman receives care from the same midwife or team of midwives throughout pregnancy, birth, and postnatal period.

**CPD (Cephalopelvic Disproportion):** A condition where the baby's head is unable to pass through the mother's pelvis.

**CTG (Cardiotocography):** A monitoring method to record fetal heart rate and uterine contractions.

**Deflexed Head:** A fetal head position where the chin is not tucked, potentially complicating vaginal delivery.

**EFW (Estimated Fetal Weight):** An ultrasound-based estimate of the baby's weight in utero.

**Endometritis:** Inflammation or infection of the uterine lining.

**GBS (Group B Streptococcus):** A bacterial infection that is screened for by some health institutions and can be passed to the baby during delivery.

**GDM (Gestational Diabetes Mellitus):** Diabetes diagnosed during pregnancy that was not clearly overt diabetes prior to gestation.

**Haematuria:** Presence of blood in the urine, which may occur during pregnancy or labour due to various causes.

**HC (Head Circumference):** A fetal measurement used to assess growth and development.

**Hypertonus:** Excessively strong or prolonged uterine contractions, which can compromise fetal oxygenation.

**IFH (Impacted Fetal Head):** A situation during caesarean section where the fetal head is deeply engaged in the pelvis and difficult to deliver, therefore requiring additional manoeuvres.

ISBAR: A communication framework commonly used in

healthcare: Identify, Situation, Background, Assessment, Recommendation.

**Malpresentation:** Any fetal position other than head-down (cephalic), such as breech or transverse.

**MHR (Maternal Heart Rate):** The heart rate of the pregnant person, monitored during labour to differentiate from fetal heart rate.

**Obstructed Labour:** Labour where the baby cannot progress through the birth canal despite strong contractions.

**OS (Cervical Os):** The opening of the cervix; can be internal or external.

**Oxytocin:** A hormone used to induce or augment labour and control postpartum bleeding.

**Partogram:** A graphical record of labour progress, including cervical dilation, fetal heart rate, and contractions.

**Patwardhan's method:** A method used to deliver a deeply impacted fetal head during caesarean section that involves removing the fetal shoulder and arms first and the head last.

**QMEWT (Queensland Maternity Early Warning Tool):** A charting tool used to detect early signs of maternal clinical deterioration to prompt timely intervention.

**ROA (Right Occipito-Anterior):** A fetal position where the back of the baby's head is toward the mother's right front side—favourable for vaginal birth.

**ROT (Right Occipito-Transverse):** A fetal position where the back of the baby's head is toward the mother's right side—may require rotation for birth.

**RSQ (Retrieval Services Queensland):** A service that coordinates and provides emergency medical retrieval and transport across Queensland.

**SROM (Spontaneous Rupture of Membranes):** The natural breaking of the amniotic sac, commonly referred to as "water breaking."

**TENS (Transcutaneous Electrical Nerve Stimulation):** A non-pharmacological method of pain relief using mild electrical currents, often used during labour.

### **Obstructed labour facilitator guide**

### Facilitator's note:

There is no simulation component for obstructed labour and IFH.

The midwifery facilitator will guide participants through the obstructed labour session (60 mins, includes interactive case study) in the debriefing room and the obstetric facilitator will run the IFH skills station session (60 mins, includes Fetal Pillow®, vaginal cephalic disimpaction, abdominal cephalic disimpaction, reverse breech extraction, Patwardhan's method) in the simulation or clinical space. Split your participants into two groups, ensuring there is medical staff in each group.

### Learning objectives

- Identify key risk factors associated with obstructed labour
- Apply shared decision-making principles when discussing obstetric interventions
- Detect delays in labour progress and initiate timely escalation of care

### Overview of obstructed labour session

- Review of obstructed labour pre-reading using PowerPoint slides
- Case study
- Plan of care presentations (time permitting)
- Debrief and summary

### **Interactive case study (60 mins)**

### **Materials**

- 1 set of time points 1-5 per group (pgs. 43-47 of this document)
- 1 copy of Instrumental birth per group (pg. 48 of this document)
- 1 blank HHS partogram for each timepoint per group (for iEMR users, utilise downtime partogram)
- 1 set of CTGs for time points 2-5 per group (pgs. 49-56 of this document)
- 2 pens/pencils per group (or whiteboard markers if using laminated materials)
- 1 shared decision-making process infographic per group (pg. 57 of this document)
- Simulated participant notes (pgs. 58-59 of this document)

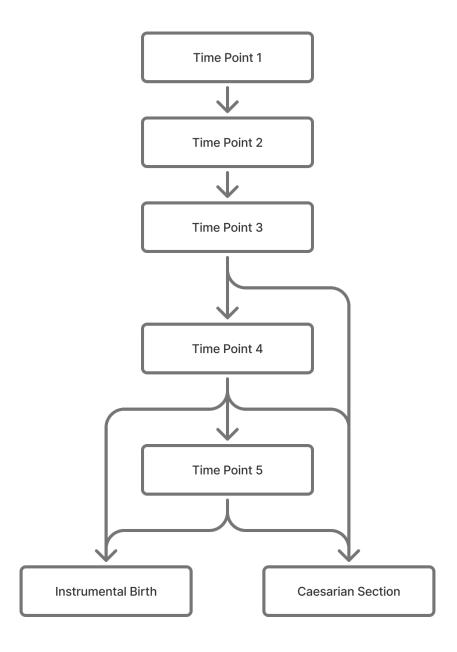
### **Facilitation steps:**

- 1. Introduce the session using the PowerPoint presentation and review the outcomes on slide 2.
- Using slide 3, elicit a few definitions of obstructed labour from participants before moving on to slide 4 and showing the definitions from the Queensland Clinical Guideline – Prolonged and/or obstructed labour – Short Guide and Queensland Clinical Guideline – Normal birth.
- 3. Show participants slide 5 and encourage them to access the new guideline on QHEPS.
- 4. Move on to slide 6 and ask participants to provide examples of what causes or contributes to obstructed labour before moving on to slide 7 and eliciting any factors affecting progression of labour not already mentioned.
- 5. Continue to slide 8 and elicit key clinical signs associated with obstructed labour before moving on to slide 9 and showing the signs listed in the *Queensland Clinical Guidelines:*Prolonged and/or obstructed labour short guide.
- 6. Use slide 10 to ask 1-2 additional questions, time permitting.

### Some suggestions are:

- What can a woman do to reduce her chances of an obstructed labour?
- What can clinicians do to reduce a woman's chance of obstructed labour?
- When should you escalate your concerns (and to who) if you suspect obstructed labour?
- What complications can occur from obstructed labour?
- 7. **Case study:** Move on to slide 11 and introduce the case study discussion activity. Let participants know that they'll be working through a scenario in a group, coming up with a plan of care based on the information in the case study.
  - Each group will receive information about the woman (Talia) as the scenario plays out in the form of time point handouts (pgs. 43-47 of this document). Groups will make a plan of care for Talia based on each time point using the shared decision-making process. All groups will successfully birth their baby either via instrumental birth or caesarean section, although groups may arrive at this decision at different time points. The achievement of the learning objectives will occur through the group discussions and facilitator debrief and summary.

The below image illustrates the possible paths groups could take.



As there will be different clinical backgrounds/experiences/assumptions among the different group members, each group may come up with a different plan of care – and that's ok! Remind participants that this activity is a good opportunity to collaborate as a team and apply the shared decision-making process outlined in the pre-reading.

**Note**: The *Time point 1* handout has a space for you to write in the birthing facility level to better contextualise the case study to the participants' facility.

- 8. Show participants the learning objectives for the case study on slide 12 to reinforce the expectations for the activity.
- 9. Move on to slide 13 and set up the activity, allowing some time to answer any questions before the activity begins.
- 10. Give each group the following materials:
  - a. a copy of Time point 1
  - b. pens/pencils/markers
  - c. a blank partogram
  - d. a copy of the *Shared decision-making process* infographic.
- 11. Ask participants to begin, reminding them to ask for the next time point once they've finished their current one. Participants will continue working through the time points until they make the decision for an instrumental birth, or caesarean section.

If at any point the group decide to do an instrumental birth, give them the *Instrumental birth* time point. After they have completed the instrumental birth card, they will be advised that the instrumental birth was successful. They will need to wait until the other group/s catch up to the decision to do a caesarean section or an instrumental birth.

If a group has a CTG as part of their plan of care, provide it to them with their next timepoint sheet. For example, if a group requests a CTG at Time point 1, provide them with the *Time point 2 – CTG* handout along with the *Time point 2* handout, once they've finished their plan of care for Time point 1.

If there is a simulated participant available to play the role of Talia, encourage groups to consult with them at each time point to better practice the shared decision-making process. There are notes to guide the simulated participant located later in this resource kit.

### Time point 1 - Facilitator guidance:

Routine care as per facility's normal birth guideline and intrapartum management for GDM (diet control).

There should be some discussion from participants about supporting optimal birth, addressing the needs of the woman and having a collaborative approach to planning the woman's care as per the shared decision-making process tool.

Some clinicians may consider a CTG due to Talia experiencing 24 hours of irregular tightenings. This may open a discussion about spurious labour. Try to keep the discussion on track and encourage the group to agree on a plan of care to keep the case study progressing. If they request a CTG, this will be provided along with *Time point 2*.

### Time point 2 - Facilitator guidance:

There may be some variation from participants about when to reassess the woman based on her progress.

There should be some discussion from participants about supporting optimal birth, addressing the needs of the woman and having a collaborative approach to planning the woman's care.

### Time point 3 - Facilitator guidance:

There may be some variation from participants about when to reassess the woman based on her progress and individual circumstances. The plan should include any discussions had with the woman about pain management, pros/cons of caesarean birth, continuous fetal monitoring, plan for reassessment of cervical dilation and what consultations/referrals with clinicians have occurred.

### Time point 4 - Facilitator guidance:

Talia is now fully dilated however other factors for consideration are:

- increasing BP, pulse, maternal temp and FHR baseline.
- coupling of contractions
- haematuria
- deflexed head and increasing caput

Clinicians should be discussing all findings with the woman and considering the full clinical picture.

Discussions between clinicians should include communication and escalation to the midwifery team leader and obstetric team.

### Time point 5 - Facilitator guidance

Discussion points for this timepoint will include:

- elevated BP, maternal pulse, temperature
- haematuria
- non-reassuring CTG (elevated rising baseline, complicated variable decelerations, absent variability) indicating likely fetal compromise
- significant caput and a deflexed head at spines

The group is encouraged to consider the full clinical picture while keeping the woman at the centre of her care. If the recommendation for a caesarean section hasn't yet occurred, then this should occur at timepoint 5. This timepoint continues to provide the opportunity to explore collaborative teamwork, available resources, and appropriate escalation pathways, all within the framework of respectful maternity care. While each group may focus on different aspects of the case, every discussion should allow participants to engage with diverse perspectives, discuss any points of contention, and learn through meaningful dialogue.

### 12. Plan of care presentation (20 mins time permitting)

**Note**: If you have a large number of participants, you may not have enough time for all groups to present. In that situation, feel free to move on to the Debrief and Summary sections.

Use slide 15 to set up the presentation activity. Have each team nominate a presenter and choose a group to start. Emphasise that there is no one 'correct' answer as the plans will

always differ based on the teams that are creating them and the maternal and facility circumstances not necessarily provided in the case study.

Ask participants to actively listen to the presenting group and wait to contribute until all groups have presented their plans of care. There will be time to discuss and share knowledge at the end of the session. Once all groups have presented their plans of care, move on to the case study debrief and session summary.

### 13. Debrief/summary: (10mins)

Bring participants back to sit in one large circle for a debrief and summary of learnings. Choose 2 or 3 points to focus on for the debrief/summary.

Open the discussion to the group and guide the group to:

- compare approaches
- identify common priorities
- resolve disagreements
- align with evidence-based guideline
- consider how women-centred care can be incorporated throughout the case study.

### Sample question prompts for debrief/summary:

- How did you arrive at your decision?
- What were your priorities at each point?
- How would you involve the women in your plan of care?
- What did the group find challenging?
- Were there differences in clinical judgement?
- How did you resolve these differences?
- How can this exercise improve real-time teamwork?

### Time point 1

### History

Talia is 28 years old at 40+1 gestation.

G1P0, A POS blood group, GBS neg. GDM – diet controlled. BMI 26.

Scans at 12 weeks and 20 weeks - NAD

Scan at 36 weeks showed EFW 87%, AC 82%, HC 88%, placenta 6cm clear of os.

Talia is keen for a natural birth and attended childbirth education classes at her local hospital as well as an extra class on active birthing skills. She walks her dog every day and has been doing pregnancy yoga classes. She has been eating well and managing her BSLs well with education, dietary adjustments, and gentle exercise.

### **Presentation**

After 24 hours of irregular tightenings, Talia's contractions have become regular, and she has presented in labour to her birthing unit for assessment at 03:30hrs. She was able to sleep for a few hours overnight. SROM occurred at home at 01:00hrs this morning and liquor is clear. She is booked at a level \_\_\_\_\_ birthing facility.

### Findings at 04:00hrs

### Clinical

- Obs BP 118/66, pulse 80bpm, temp 36.8, FHR 146bpm, non-fasting BSL 5.1mmol/L
- Abdominal palpation cephalic, ROT, 2/5 above brim
- Contractions- 3:10 mod, lasting 45-50 seconds
- Vaginal exam attended with Talia's consent:
  - Cervix 5cm dilated, 0.5cm effaced, -1
  - Partially applied
  - Nil caput
  - Clear liquor.

### **Psychosocial**

Getting back pain with contractions. Talia's using the TENS machine and a heat pack with good effect. She is well supported by her partner but is tired after experiencing irregular tightenings for the last 24 hours.

### Discussion and plan of care

### Time point 2

Talia is admitted to the birthing ward and four hours have passed.

### Findings at 08:00hrs

### Clinical

- Obs BP 122/75, pulse 82bpm, temp 36.9, FHR 150bpm, BSL 6.2mmol/L
- Abdominal palpation cephalic, ROT, 2/5 above brim.
- Contracting 3:10 mod/strong lasting 60 seconds.
- Vaginal exam attended with Talia's consent:
  - Cervix 7cm dilated, 0.5cm effaced, 1
  - Some oedema to cervix, moulding and slight caput +
  - Not well applied to cervix, moderate flexion of head (military attitude)
  - Clear liquor.

### **Psychosocial**

Contractions are strong and regular, and her back pain remains. Talia has been alternating between using the TENS machine and spending time in the shower, however her energy is low, and she is finding it more difficult to manage. She's unsure about whether her progress is normal.

### Discussion and plan of care

### Time point 3

Three hours later Talia is requesting analgesia.

### Findings at 11:00

### Clinical

- Obs BP 136/83, pulse 105bpm, temp 37.6, FHR 155bpm, BSL 5.8mmol/L
- Abdominal palpation cephalic, ROT, 2/5 above brim
- Contractions 3:10 mod/strong lasting 60 seconds
- Vaginal exam attended with Talia's consent:
  - Cervix 8cm dilated, oedematous cervix, not well applied
  - Head deflexed, at spines with moulding and caput +
  - Meconium liquor now present.

### **Psychosocial**

Talia is tired and struggling with contractions. After considering her options for pain relief, she has decided to have an epidural. She is also stating 'I am worried about how long my labour is taking. Do I need a caesarean section?'

### Discussion and plan of care

### Time point 4

Two hours later, Talia's epidural has been inserted and is working well.

### Findings at 13:00

### Clinical

- Obs BP 135/87, pulse 114bpm, temp 37.9, FHR 165bpm, BSL 6.3mmol/L
- Abdominal palpation cephalic, ROP, 1/5 above brim
- Contractions 3:10, mod/strong, incoordinate/coupling
- Haematuria is present in IDC
- Vaginal exam attended with Talia's consent:
  - Cervix fully dilated
  - Head deflexed, ROP, at spines with moulding and caput ++
  - Meconium liquor present.

### **Psychosocial**

Talia's pain is resolved with an effective epidural sited. She has had a short nap post epidural insertion and is resting between clinician assessments. She is becoming increasingly worried about her baby and is unsure about what will happen next.

### Discussion and plan of care

### Time point 5

Talia is reassessed one hour after her last assessment due to fetal indications.

### Findings at 14:00

### Clinical

- Obs BP 142/90 MHR 114bpm, Temp 38.2, FHR- 165bpm, BSL 6.5mmol/L.
- Abdominal palpation cephalic, ROP, presenting part at spines.
- Haematuria is present in IDC
- Vaginal exam attended with Talia's consent:
  - Cervix fully dilated
  - Head deflexed, ROP, at spines with moulding and caput +++
  - Meconium liquor present.

### **Psychosocial**

Talia's pain is well managed with an epidural, but she is worried about her baby and she wants to have a caesarean section.

### Discussion and plan of care

### **Instrumental birth**

The obstetric doctor is recommending an instrumental birth.

As a team, work through the relevant parts of the shared decision-making tool and how you will guide Talia through this process. What resources and processes do you want in place when preparing to perform this instrumental birth.

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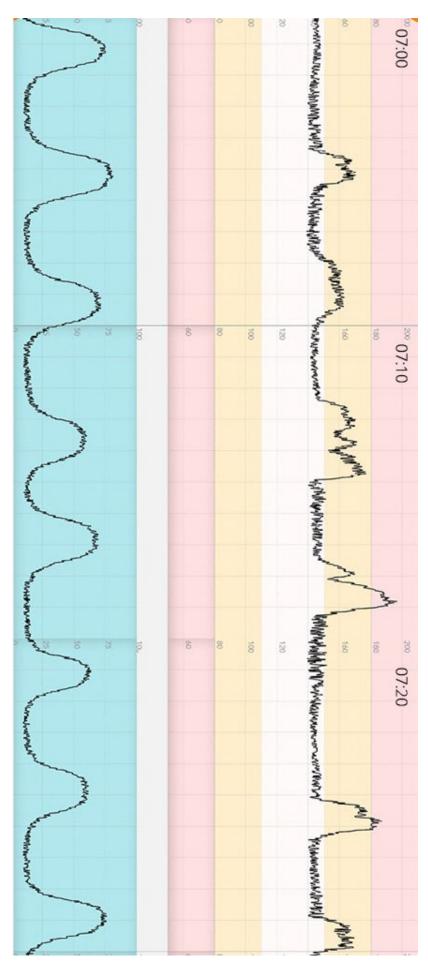
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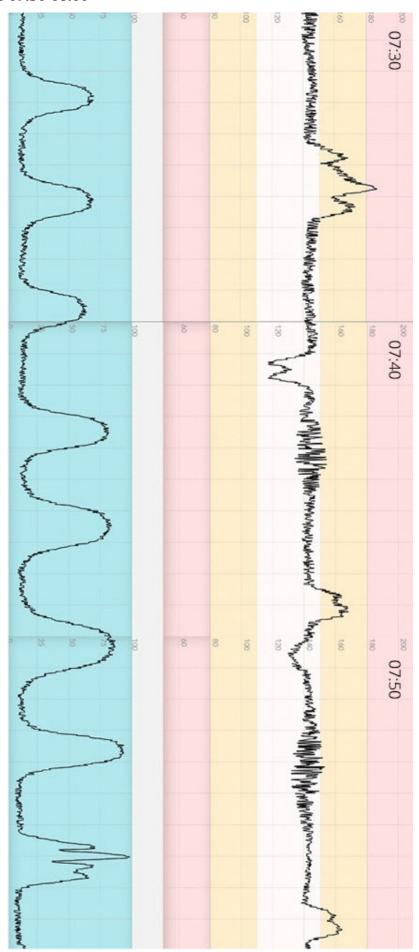
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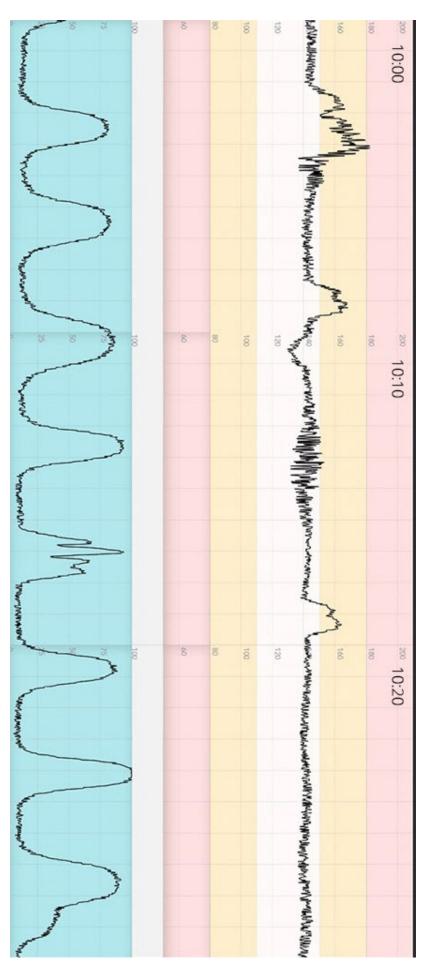
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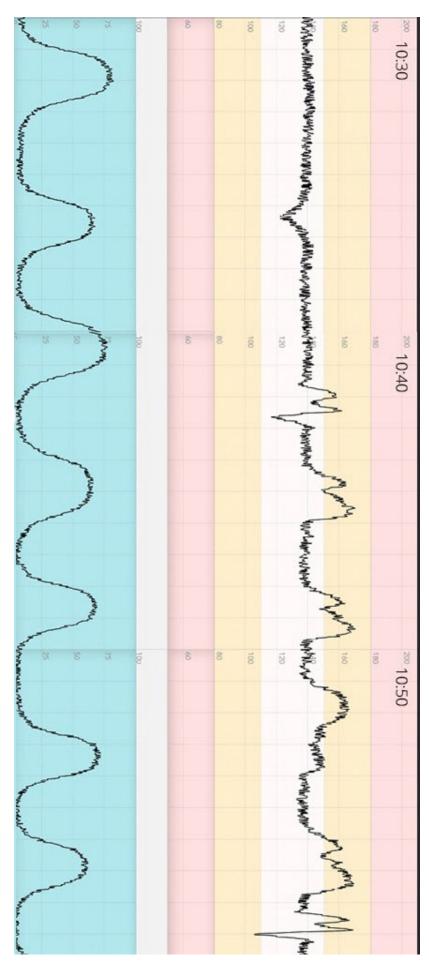
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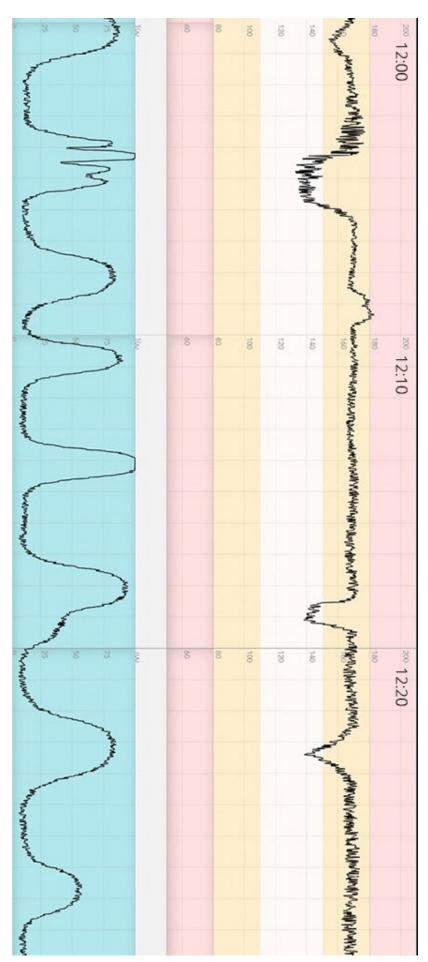
### Time point 3 - CTG 10:00-10:30



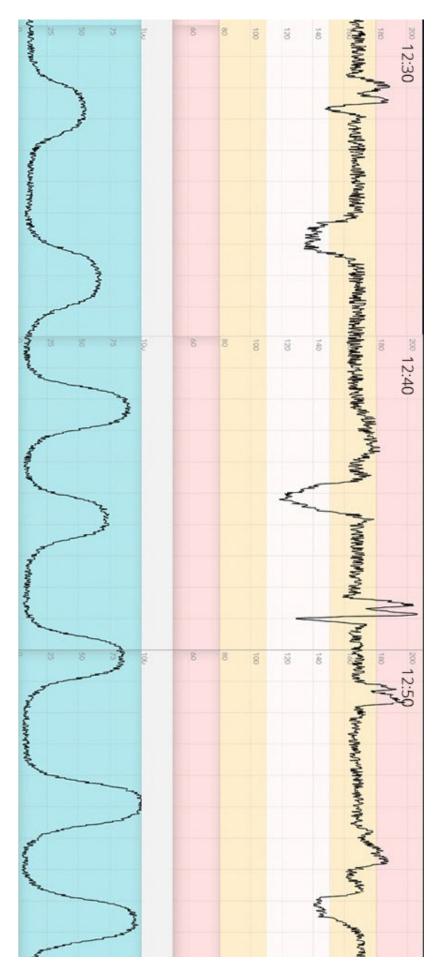
### Time point 3 - CTG 10:30-11:00



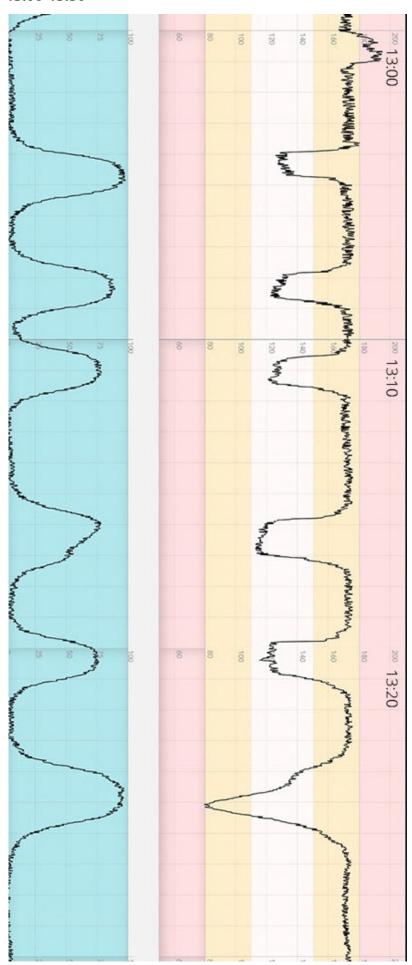
### Time point 4 - CTG 12:00-12:30



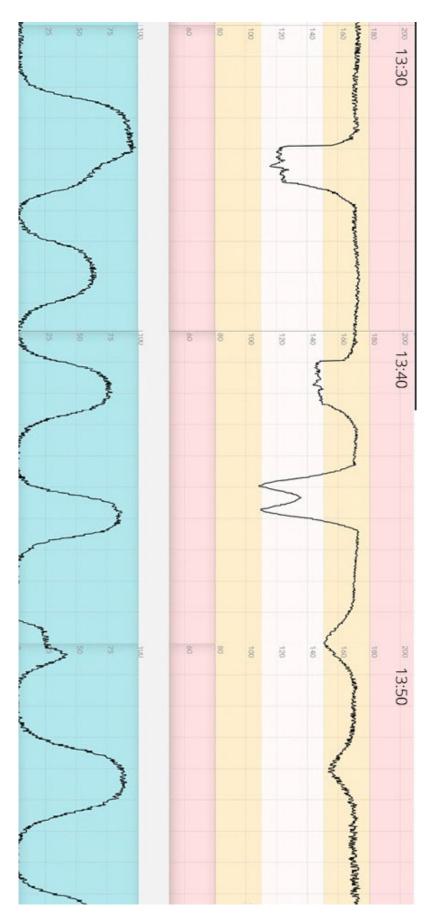
### Time point 4 - CTG 12:30-13:00

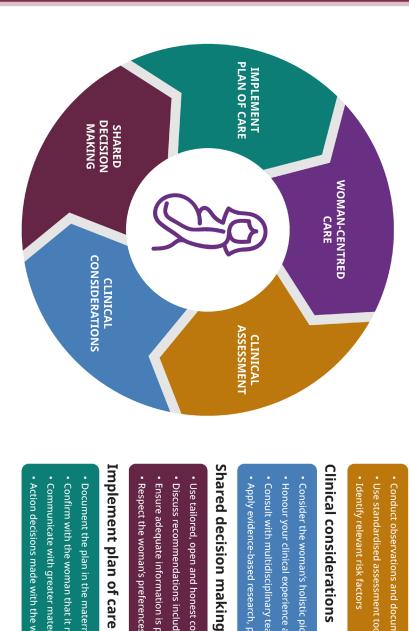


Time point 5 - CTG 13:00-13:30



### Time point 5 - CTG 13:30-14:00





# Shared decision-making process

### Woman-centred care

Review history and pregnancy records first, before clarifying with the woman

Actively listen to the woman - consider the woman's individual needs, values, preferences and circumstances

Respect the woman's intuition and gut feelings

Use tailored, open and honest communication

### Clinical assessment

- Conduct observations and document findings
- Use standardised assessment tools (i.e. Q-MEWT, partogram)
- Identify relevant risk factors

### Clinical considerations

- Consider the woman's holistic picture
- Honour your clinical experience and intuition
- Consult with multidisciplinary team members (as required)
- Apply evidence-based research, professional standards and guidelines (NMBA, RANZCOG, ACM)

## Use tailored, open and honest communication

- Respect the woman's preferences, goals and decision-making rights • Ensure adequate information is provided to enable informed consent and informed decision making Discuss recommendations including the benefits and risks
- Document the plan in the maternity care notes
- Confirm with the woman that it reflects her decisions and preferences
- Communicate with greater maternity team (as required)
- Action decisions made with the woman

### Simulated participant notes

This information will prompt you with answers that group participants may ask you questions about. If they ask something that is not provided below you are welcome to come up with an answer that best fits in with the scenario.

### Time point 1

- It's 04:00am. You are feeling a bit tired from broken sleep through the night; however, you are very excited about labour commencing.
- Your pregnancy has been straight forward except for having gestational diabetes controlled with diet (no medication required).
- Yesterday the tightenings were mild (20 seconds long, every 10 minutes), however since midnight they have been stronger and more regular contraction (45 seconds long, 3 minutes apart).
- You were able to get a few hours of sleep before the contractions began at 11:00pm last night.
- Your waters broke at 01:00am this morning and the colour has been clear.
- You phoned the hospital at 03:00am and were advised to come in.
- You haven't required any analgesia to date.
- You have been using a TENS machine and a heat pack which is really helping.
- You are mostly feeling the contractions in the middle of your back.
- Your partner is present and is a great support.
- Your baby has been moving well.

### Time point 2

- Your energy is getting low.
- You are unsure about what the findings of the vaginal exam indicate and ask for some more clarification around this.
- You can ask how the baby is and if there are any concerns with your baby (you can do this at any point throughout the case study).
- You are keen to continue alternating between the TENS machine and the shower as you are finding these two things really helpful.

### Time point 3

- You are finding labour challenging and the TENS/shower is no longer enough support for you.
- You ask a midwife about your options for pain relief.
- You then ask a midwife about the benefits and risks of gas and epidural. You are not keen on morphine or pethidine.
- You also ask the doctor about having a caesarean section because you are worried about how long labour is taking.
- If you feel reassured by the explanation that you don't need a caesarean section you can agree to continue with labour.
- If you are asked what you wish to do, use the BRAINS acronym to guide your questions:
  - What are the Benefits?
  - What are the Risks?
  - Ask if there are any **A**lternatives to a caesarean?
  - What's your Intuition telling you?
  - What if you choose to do **N**othing?
  - Can I have some **S**pace to consider this information with my partner?
- Option a: After considering the options you decide to have a caesarean section
- Option b: After considering the options you decide to continue with labour

### Time point 4:

- You are asking about the wellbeing of your baby.
- The epidural is providing good pain relief, you are comfortable.
- Any recommendations from the clinicians should provide you with information about the benefits, risks, alternatives and the opportunity to ask questions and have input into the decision making. If any of these are not discussed, ask for clarification.
- If you are recommended to have a caesarean section or an instrumental birth and you feel
  reassured about the information provided to you, proceed with the recommended
  intervention. If you haven't received adequate information, you can ask more questions
  before agreeing to proceed.

### Time point 5:

- You have considered the benefits and risks of your options, and you are wanting to proceed with a caesarean section.
- Ask about the wellbeing of your baby and if your partner can remain with you for the birth.

### Skills stations: Impacted fetal head

### Facilitator's note

The aim of this session is to enable participants to recognise and effectively manage impacted fetal head. It should be facilitated by an obstetrician, and there should be a mix of obstetric medical staff and midwives. While obstetric medical staff are the main target audience for these skills, midwives and other participants will benefit greatly from observing these techniques, being part of the discussions and, time permitting, practicing.

### **Objectives/outcomes:**

- identify when a Fetal Pillow<sup>®</sup> is indicated, contraindications, and potential complications
- practice inserting and removing the Fetal Pillow® (obstetric medical staff)
- recognise impacted fetal head
- manage/safely deliver impacted fetal head using:
  - vaginal cephalic disimpaction (midwives and obstetric medical staff)
  - abdominal cephalic disimpaction (obstetric medical staff)
  - reverse breech extraction (obstetric medical staff)
  - Patwardhan's method (obstetric medical staff)
- practice team collaboration when managing impacted fetal head
- understand the importance of clear communication between clinical team members and with the woman.

### **Session structure**

- Skills stations
  - Fetal Pillow<sup>®</sup>
  - vaginal cephalic disimpaction
  - abdominal cephalic disimpaction
  - reverse breech extraction
  - Patwardhan's method
- Impacted fetal head summary and discussion

### Impacted fetal head skill station: Fetal Pillow®

Overview	verview		
Station type	Instructor-led skill station using part-task trainer		
Target audience	Midwifery and medical staff providing intrapartum care		
Learning outcomes	By the end of the session, participants should be able to:		
	identify when a Fetal Pillow® is indicated, contraindications, and potential complications		
	describe and demonstrate the correct insertion and inflation technique		
	consider how to coordinate with the surgical team for effective use		
Duration	15 mins		
Station set up and equipment	Part task trainer with realistic pelvic anatomy and fetal head (e.g. PROMPT Flex or equivalent)		
	Fetal Pillow® device (sterile, single use)		
	inflation syringe (60 mL usually included with device)		
	lubricating gel (water-based)		
	• gloves		
	water (substituted for saline)		

### Skill station - Fetal Pillow®

### Introduction and demonstration of skill

- 1. Introduce the clinical scenario by asking participants in which situation they would use the Fetal Pillow®, anticipating the following answers:
  - a. the situation where the fetal head is deeply impacted in the maternal pelvis (e.g. failed instrumental delivery).
  - b. second-stage caesarean.
- 2. Emphasise the importance of preventing fetal or uterine trauma by disimpacting the head before uterine incision.
- 3. Identify device components by showing participants the Fetal Pillow®, the soft silicone balloon with a connecting inflation tube and the clear markings on the shaft for insertion depth.
- 4. Position the obstetric manikin in dorsal lithotomy or supine position.
- 5. Insert the simulated fetal head into the pelvis to mimic deep engagement.
- 6. Demonstrate vaginal insertion of Fetal Pillow®
  - a. Wear gloves and apply water-based lubricant to the Fetal Pillow®.
  - b. Gently insert the deflated device into the posterior fornix of the vagina, positioning the balloon directly beneath the fetal head. Ensure the inflation port remains accessible outside the vagina.
  - c. Confirm correct positioning the widest part of the balloon should sit below the occiput.
- 7. Inflate the device
  - a. Connect the syringe to the inflation port.
  - b. Inflate slowly using saline/water. If using manufacturer-provided syringe (60mL), participants will need to fill and discharge it three times to fully inflate the device.
- 8. As the balloon inflates, it elevates the fetal head out of the pelvis, creating space for safer delivery through the uterine incision. The part task trainer will simulate head elevation visibly.
- 9. After delivery of the baby, deflate the Fetal Pillow® completely.
- 10. Gently withdraw the device vaginally.
- 11. Inspect for damage (in real clinical use).

### Troubleshooting/discussion points:

- What if the balloon dislodges? Reinsert before inflation.
- What if inflation is difficult? Check for kinks or resistance; never force inflation.
- Discuss alternatives and limitations (e.g. digital disimpaction vs. Fetal Pillow®).
- Debrief on team communication and safety considerations.

Practice				
Details	Expected actions			
Assign roles (i.e. accoucheur to insert and inflate the Fetal Pillow® and assistant to deflate and remove) to the team or let the participants assign them and allow participants to practice.	<ul> <li>Correct insertion technique</li> <li>Correct balloon inflation volume</li> <li>Effective communication with woman and team</li> </ul>			

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### Impacted fetal head skill station – Manual disimpaction techniques

Overview	verview	
Station type	Part-task trainer	
Target audience	Midwifery and medical staff providing intrapartum care	
Learning outcomes	By the end of the session, participants should be able to:  • identify need for disimpaction of fetal head  • determine appropriate technique including consideration of contraindications, and potential complications  • describe and demonstrate disimpaction techniques  • effectively communicate recommendations with woman and team	
Duration	40 mins	
Station set up and equipment	<ul> <li>part task trainer with realistic pelvic anatomy and fetal head (e.g. PROMPT Flex enhanced caesarean model, Desperate Debra® or equivalent)</li> <li>fetal manikin/doll</li> <li>lubricating gel (water-based)</li> <li>gloves</li> </ul>	

### Manual fetal head elevation

### Introduction and demonstration manual fetal head elevation

- 1. Demonstrate the correct technique of manual fetal head elevation.
- 2. Emphasise proper hand placement: flat hand behind fetal occiput, not on the fontanelle. Gently cup the baby's head and use palm of hand to flex and elevate the head.
  - a. Encourage participants to use closed fingers and gently cup the occiput with the palm.
  - b. Ensure participants exert no digital pressure on the fetal skull.
- 3. Technique requires coordination with surgeon applying upward traction on the uterus (refer to image in prereading if needed).
  - a. Communication between the vaginal assistant and surgeon is key demonstrate this by checking that the vaginal assistant is in the correct position with the surgeon i.e. that the surgeon can feel the assistant's hand and if there is any movement of the fetal head out of the pelvis.

### Troubleshooting/discussion points

- Participants aren't properly cupping their hands or are using digital pressure on the fetal head have participants try again using the correct hand position.
- Participants aren't verbally communicating about their positions or the movement of the head Encourage participants to talk through what they're doing.

Practice			
Details	Expected actions		
Divide the group into pairs – vaginal assistant and surgeon – and allow them to practice the technique, providing feedback for unsuccessful attempts or improper technique.	<ul> <li>Successful disimpaction of the fetal head using manual fetal head elevation</li> <li>Effective communication with woman and team</li> </ul>		

### **Abdominal cephalic disimpaction**

### Introduction and demonstration of abdominal cephalic disimpaction

- 1. Demonstrate the technique
- 2. Reiterate to participants that the key to this technique is avoiding excessive force.
  - a. Surgeon to perform vaginal examination and diagnose IFH and position of fetal head.
- 3. Flexion and elevation of fetal head from vagina is then attempted.
  - a. Surgeon next moves to abdomen where caesarean incision has already been made
  - b. Through hysterotomy incision, surgeon flexes and elevates fetal head towards the uterine incision, keeping their wrist in a straight position. Consider use of non-dominant hand to elevate fetal head in order to avoid wrist flexion, side to side movement, and tearing and extension of the uterine incision.
  - c. You can then use dominant hand inside palm of non-dominant hand to elevate and deliver fetal head.
  - d. Elevate fetal head towards mother's head until it is out of the pelvis and then up towards the ceiling.

Practice				
Details	Expected actions			
Allow participants to practice the technique, providing feedback for unsuccessful attempts or improper technique.	<ul> <li>Performs vaginal examination, diagnoses IFH and anticipates may require extra steps to deliver fetal head</li> <li>Attempts elevation/flexion of fetal head vaginally</li> <li>Keeps wrist straight when flexing and elevating fetal head to reduce risk of maternal injury.</li> <li>Effective communication with woman and team</li> </ul>			

### Reverse breech extraction Introduction and demonstration reverse breech extraction 1. Elicit indication for the use of this technique provided in the pre-reading – performed when vaginal and abdominal disimpaction of the fetal head has been unsuccessful. 2. Demonstrate the technique a. With hand in uterus, identify and then grasp one or both fetal feet and apply steady traction in downward direction. Stress the importance of not misidentifying the fetal hand as a foot. b. Gently deliver the baby manikin as per a breech delivery, being careful not to hyperextend the fetal neck. Mention to participants that if you're having difficulty in terms of access, a T or I incision may be indicated and that participants should verbalise this when performing the technique. **Practice Expected actions** Details ☐ Correct identification of fetal foot rather than hand prior to commencing Allow participants to practice the technique, providing delivery feedback for unsuccessful attempts or improper ☐ Avoids hyperextension of the fetal neck technique. ☐ Recognises the potential necessity of extending the uterine incision ☐ Effective communication with woman and team

### Patwardhan's method Introduction and demonstration of Patwardhan's method 1. Provide participants with some background information about the technique: a. common in India where the technique was pioneered, but not well known in other areas b. technically challenging technique that requires training and experience c. there appears to be lower incidence of uterine incision extension compared to push techniques when skilfully performed d. needs good uterine relaxation to have best access. 2. Elicit indication for the use of this technique provided in the pre-reading – fetal head is deeply impacted, other techniques have been unsuccessful, or fetal shoulders are easily accessible. 3. Demonstrate the technique a. Deliver both fetal shoulders and arms through the incision with gentle traction b. Hold baby's back by hooking fingers into axillae gently and, applying gentle traction, deliver the trunk while the assistant applies traction to the fundus to flex the baby's abdomen, allowing delivery of the breech c. Lift the head out of the pelvis with caution to ensure the neck is not hyperextended **Practice** Details **Expected actions** ☐ Clear communication to team, especially surgical assistant as to what Divide the group into pairs and allow them to practice assistance is needed the technique, providing feedback for unsuccessful

☐ No hyperextension of fetal neck

☐ Effective communication with woman and team

attempts or improper technique.

### Impacted fetal head summary and discussion

- Ask participants what they found difficult.
- Ask participants 'How do we brief and prepare when an impacted head is suspected?' Anticipate the following answers:
  - Huddle with team to:
  - ensure all necessary team members are present -midwife, senior obstetrician, paediatrician, anaesthetist, theatre nursing staff, operation assistant
  - o discuss roles of team members
  - o set expectation of potential for difficult delivery/IFH
  - o ensure oxytocin infusion has been ceased if used in labour
  - o discuss possible complications and management e.g. PPH, neonatal resuscitation
  - o request necessary equipment and medications
  - o ensure standing stool in room (easy to access for accoucheur and assistant)
  - discuss use of Fetal Pillow<sup>®</sup>
  - discuss tocolysis drugs and timing.
- Positioning of the woman
- Avoid low hysterotomy as risk of incision extension into vagina is greater, increasing the risk of bladder/ureteral injury
- Discuss with woman and obtain consent for a vaginal examination in operating theatre +/insertion of Fetal Pillow®

### A note on tocolysis

There is insufficient high-quality evidence to support tocolysis. There is anecdotal evidence that tocolysis can facilitate disimpaction by relaxation of the uterus. However, there is no evidence to support use of a particular uterotonic. In view of theoretical risk of post-partum haemorrhage the shortest acting tocolytic agent may be advised, such as sublingual glyceryl trinitrate (GTN) or IV GTN (though this is more complicated to prepare for the appropriate dose). Some clinicians recommend the administration of tocolysis prior to uterine incision, at the point of reflection of bladder peritoneum.

- Review the role of communication and teamwork.
  - Reiterate the need to work as a team and communicate clearly. Keep the rest of the team, as well as the woman, informed as to what manoeuvres are being performed by the surgeon and what assistance the other team members can provide.
- Discuss documentation and counselling post procedure.
  - Encourage participants to ensure there is clear documentation in the operation notes about what procedures were performed, any extra uterine incisions made, uterotonics given, time of uterine incision and time of delivery.

- Remind participants about the importance of debriefing mother/parents about the birth and explaining in plain language what procedures were undertaken, what/if any implications this birth would have on further pregnancies and mode of birth, e.g. would the mother need a caesarean section next time or could she attempt a vaginal birth.
- Mention to participants that debriefing with the clinical team after a complex birth is extremely important to minimise trauma, improve and enhance individual and team learning, and create a shared understanding of the situation the team just experienced.

### **Share your feedback**

Please complete this <u>Online Survey</u> and help make Queensland Maternity Education better.

The survey should take no more than 5 minutes to complete.

