

Unanticipated Birth Outside the Birthing Unit

Guidelines for Labour Assessment,
Imminent Delivery, and Transfer



Revised: August 2022

The information in this resource is up to date as of the time of publication. RCP aims to review posted resources at a minimum every five years, unless new evidence to support practice changes in opposition of this information would require immediate removal and revision. Please feel free to contact us with any questions or concerns about information found in an RCP resource. (902)470-6798.

This is a clinical practice guideline only, intended for use by regulated health professionals. Practices may differ across facilities and practice environments, depending on available resources and prescriber preference. All policies and procedures must be approved by the appropriate processes within each facility / Nova Scotia Health (e.g., Maternal/Child or Perinatal Committee, Medical Advisory Committee, etc.).

The information in this guideline is intended to be inclusive of all childbearing persons including those who do not identify as a woman or female. Some of the content may include gendered language to reflect the populations studied and reported by researchers. However, RCP continually strives to shift the culture and improve our use of language in perinatal health to better reflect all persons and childbearing families, and we encourage all perinatal health professionals to do the same.

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Introduction

Most births in Nova Scotia occur in a hospital with an active obstetrical service. Occasionally, patients arrive in active labour in the Emergency or Outpatient area of a facility where an obstetrical service is unavailable. Health care professionals must be able to accurately assess these situations to determine the safest and most effective way to care for labouring persons. In some cases, the assessment may indicate that there is enough time for transfer to the nearest facility with an active obstetrical service. When it is likely that birth will occur, transfer may not be appropriate. Local clinicians must have the basic knowledge and skills required to support labour and birth in order to optimize healthy outcomes for both the parent and infant. **Transfer should not be attempted if it is suspected that birth may occur en route.**

This document has been developed to support health care professionals who do not deliver babies as part of their usual practice. It is intended to provide guidance and support to safely and effectively assess and care for labouring/birthing persons. Included are guidelines for:

- ✓ Obstetrical and fetal assessment
- ✓ Indications for transfer and the transfer process, including a provincial directory of all facilities offering an obstetrical service and details regarding EHS LifeFlight
- ✓ Care and documentation during labour and birth when transfer is not possible
- ✓ Basic neonatal resuscitation skills (NRP)
- ✓ Postpartum/postnatal assessment and care
- ✓ Equipment
- ✓ Medications to keep in stock for obstetrical emergencies and routine birth
- ✓ Laboratory tests

Transfer should not be attempted if it is suspected that birth may occur en route.

Roles of the Emergency Team

The value of multidisciplinary assessment and care by the emergency department team should never be underestimated. It is, however, the physician's responsibility to make a final decision regarding the laboring patient's care. Where time and circumstances permit, it is always advisable to **seek support and advice from a referral centre or from the transport team/EHS LifeFlight Medical Control Physician (MCP).**

Emergency Health Services (NS) – EHS LifeFlight – 1-800-743-1334

Physicians transferring patients via regular EHS ground transport (i.e. not LifeFlight ambulances) retain and assume clinical responsibility until they reach a facility with an active obstetrical service. Patients who are clinically unstable and not suitable for transport without the support and expertise of the obstetrical or neonatal LifeFlight team, should remain onsite until the LifeFlight team is available and able to assume care.

Clinicians in ambulatory care or outpatient/emergency settings should be able to recognize labour and perform basic assessments of maternal, fetal, and newborn well-being. To complete a comprehensive assessment and provide reassurance to the patient, and their partners and family, **the following skills are required:**

- Assessing frequency, strength, and duration of contractions
- Helping those in early labour with decision-making; to consider the potential need for travel or transfer to the most appropriate facility for labour and birth
- Auscultating the fetal heart tones with a Doppler or stethoscope
- Recognizing a normal (or abnormal) fetal heart rate
- Providing initial stabilization in consultation with referral centre colleagues until care is transferred
- Recognizing signs of rapidly progressing labour and birth
- Assisting and supporting patients during labour and birth
- Providing appropriate postpartum and newborn assessment and care, including;
 - first steps of newborn resuscitation (providing warmth and establishing effective ventilation if necessary), and
 - supporting the initiation of breastfeeding

Assessment of Well-Being

The patient is the best source of information about their obstetrical and medical history and presenting concerns. Many pregnant patients, particularly after 36 weeks' gestation, will carry a copy of their Nova Scotia Prenatal Record (PNR) with them; this will provide valuable information about the pregnancy. In addition to the information gained from the PNR, a discussion and description of personal health history can be obtained with key questions.

When **birth is imminent** and there is little time to do a comprehensive assessment, it is most important to assess:

- the **gestational age** of the baby (determines the urgency of the transfer process, and the most appropriate referral centre for transfer)
- the **presentation** of the baby (i.e. is the baby coming out head first or breech – buttocks or feet. Cesarean birth is recommended for some breech presentations.)
- **whether or not the amniotic membranes have ruptured**. It is best not to artificially rupture the membranes unless 1) instructed to do so by an obstetrician at the referral centre; or 2) the baby delivers.

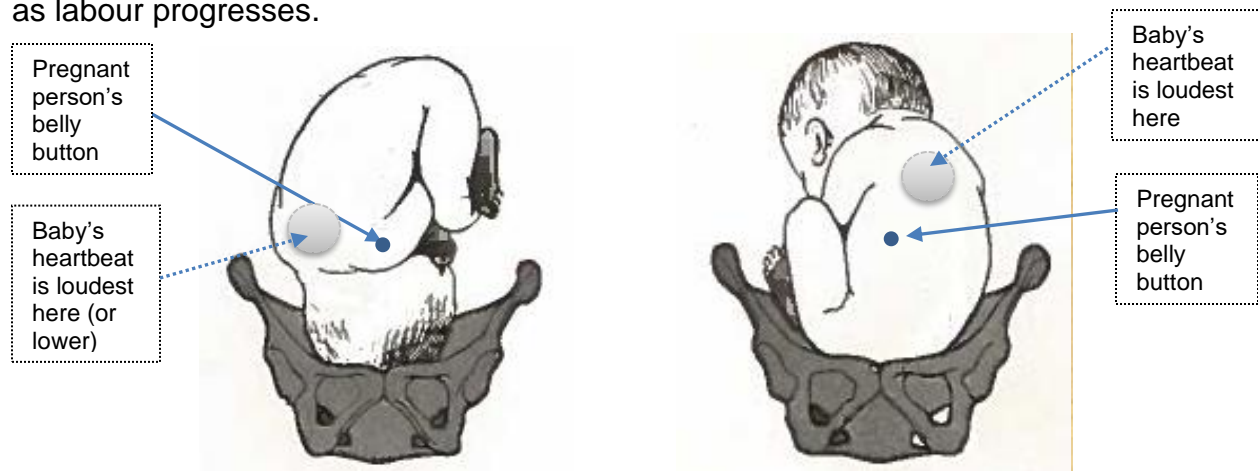
Key Questions to Assess Well-Being

Questions regarding current status	Consideration
✓ Are you pregnant?	Confirm pregnancy and that viability has been achieved (> 20 weeks)
✓ When is your due date? <i>OR</i> ✓ How many weeks pregnant are you? <i>OR</i> ✓ When is your baby due?	< 37 weeks = preterm Neonatal transport should be arranged as soon as possible if birth is imminent and in-utero transport is not an option.
✓ Is this your first baby?	If NO , have they experienced vaginal birth before, or cesarean birth? Previous vaginal birth: expect a faster labour and delivery than experienced before. Previous cesarean birth: discuss with LifeFlight MD (MCP).
✓ Do you have any health concerns? <i>OR</i> ✓ Do you have any medical conditions?	Some pre-existing health conditions (e.g. diabetes, hypertension, obesity) may increase risk for adverse perinatal outcomes.

<ul style="list-style-type: none"> ✓ Have there been any concerns with this pregnancy? 	<p>Conditions which have resulted in increased fetal or maternal surveillance (multiple gestations or breech presentation) should be discussed with a referral centre.</p>
Questions regarding baby's status	Consideration
<ul style="list-style-type: none"> ✓ Have there been any concerns with the baby's health during this pregnancy? 	<p>The LifeFlight MCP will collaborate with the referring physician regarding decisions about transfer.</p>
<ul style="list-style-type: none"> ✓ Has your baby been more or less active today? <i>AND</i> ✓ When did you last feel your baby move? 	<p>Further assessment is indicated to confirm fetal health (i.e. confirmation of a fetal heart beat via auscultation or POC ultrasound)</p> <p>If a compromised baby is anticipated and birth is imminent, arrange neonatal transport immediately. If birth is not imminent, arrange transport.</p>
Questions about labour	Consideration
<ul style="list-style-type: none"> ✓ Describe what you are feeling now. ✓ When did this start? 	<p>Consider how the symptoms have changed over time and what made them decide to come to hospital</p>
<ul style="list-style-type: none"> ✓ Can you describe the pain? <ul style="list-style-type: none"> ○ Frequency ○ Duration ○ Strength or intensity ○ Constant or intermittent ○ Location 	<ul style="list-style-type: none"> • Frequency = time from beginning of one contraction to beginning of next • Duration = how long does the contraction last from beginning to end? • How firm is the uterus with contractions? • How does pain rate on a scale of 1 to 10?
<ul style="list-style-type: none"> ✓ Do you have any pelvic or vaginal pressure? 	<p>Pelvic or vaginal pressure may indicate imminent birth or less urgent conditions. Further assessment is required (e.g. urge to push vs urinary frequency)</p>
<ul style="list-style-type: none"> ✓ Has your water broken? <ul style="list-style-type: none"> ○ If so, when? ○ Is it clear in colour? ○ Is there a foul odour? 	<p>May be felt as a gush, trickle, or wetness</p> <p>Inspect leaking fluid for presence of blood or meconium (baby's first stool – green or yellow-green)</p>
<ul style="list-style-type: none"> ✓ Is there any vaginal bleeding? ✓ When did this start? 	<p>Note: amount, colour (bright vs dark), consistency</p>

Auscultation of Fetal Heart Tones

The fetal heart tones are most easily heard through the baby's back, with the patient in a semi-recumbent or lateral lying position. When unsure of the baby's position, you may consider asking the pregnant person on which side they most frequently feel the baby's kicks. Assuming this to be the location of the baby's limbs, you would auscultate on the opposite side of the abdomen, midway between the umbilicus and symphysis pubis. The fetal heart tones will be heard lower in the abdomen as the baby moves down into the pelvis as labour progresses.



Listen to the fetal heart tones for a full minute, following a contraction. The rhythm should be regular, and the normal range is between 110 – 160 bpm. It is common to hear a deceleration that quickly recovers, so reposition the pregnant patient (e.g. to opposite side-lying) and listen again following the next contraction.

Signs and Symptoms of Labour

- Regular contractions and/or back pain not relieved with rest or other comfort measures
- Pelvic or vaginal pressure
- Increased vaginal discharge, including but not limited to bloody show
- Ruptured membranes with or without contractions (this may be indicated by slow leaking of fluid, wetness, 'popping' sound or sensation accompanied by fluid, or a larger gush of fluid)
- Cervical change (someone who is skilled at cervical assessment may perform a pelvic exam only after careful assessment, consideration, and consultation regarding gestational age and membrane status; or if birth is imminent)

Do not perform a pelvic exam if the pregnancy is less than 36 weeks' gestation or if you are unaware of placental location, unless birth appears imminent or you have consulted with a physician from a regional or tertiary hospital.

Signs and Symptoms of Imminent Birth

- Patient exclaims, "The baby's coming!" or "The baby's moving down!"
- Uncontrollable urge to push (they may express a need to defecate)
- Bulging perineum and rectum
- Uncontrollable passage of stool
- Difficulty maintaining calm, or expression of panic
- Sudden nausea and vomiting
- Crowning of the fetal presenting part (typically the head, occasionally e.g. buttocks)

Planning for Care

The presence or absence of labour, other concerns for the patient or fetus, or other safety factors such as time, distance and travel conditions will influence your decision to:

- Discharge home
- Transfer to a referral centre or facility with an active obstetrical service
- Provide care in your facility

If in labour, transfer if possible.

Guidelines for discharge home:

If the patient is not considered to be in labour, their symptoms are not concerning, or if they are in the early/latent stage of labour, reassure and offer these options:

- return home, OR
- travel to the hospital where birth was intended, considering distance and travel conditions. You may seek the recommendations of the birth hospital (e.g. if there is suspected or confirmed rupture of membranes).

Discuss the signs of labour (page 5) as well as supportive care/comfort measures. Encourage them to return if they can't get to a facility with an active obstetrical service.

Guidelines for transfer to a referral centre:

- Consult with physician on call at the appropriate referral centre, or call LifeFlight to consult with the Medical Control Physician (MCP).
- Maintain continuous support and assessment.
- Consider safety of conditions for transfer (adequate time before delivery, weather).
- Ensure appropriate care providers are available to attend during transfer. If patient is to be transferred unattended, the transferring physician maintains responsibility until the patient arrives at the intended destination and is taken into care.
- Reassess labour progress prior to transfer.
- If birth is imminent and the baby is preterm (< 37 weeks) or if the baby is anticipated to be compromised in any way, contact LifeFlight to mobilize the Neonatal Team.

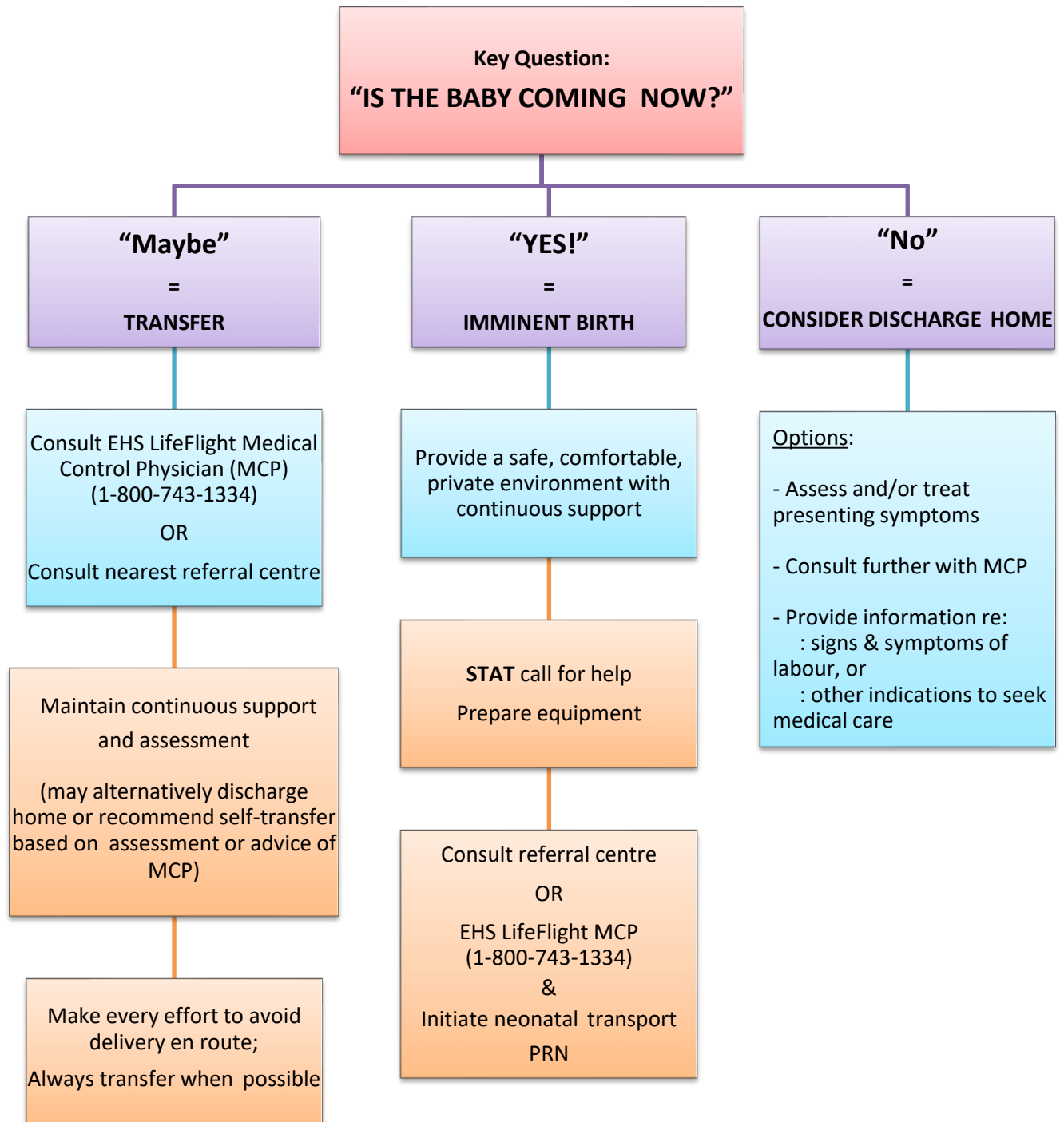
Guidelines for providing care in your facility:

- If unable to safely transfer due to imminent delivery or poor travel conditions, support the birth in your department.
- Call for additional help as needed.
- All Emergency Department staff must be familiar with the location and use of equipment required to care for a labouring or birthing patient.
- Provide a safe, comfortable, private environment with continuous support.

Labour/Birth Assessment: A Quick Reference

Signs and Symptoms of Imminent Birth:

- “The baby’s coming!”
- Uncontrollable urge to push
- Bulging perineum and rectum
- Uncontrollable passage of stool
- Patient may panic/not settle
- Sudden nausea and vomiting
- Crowning of the fetal head



When Birth is Imminent

Birth is a natural process and the vast majority of the time is uncomplicated, particularly when the pregnancy is at term (> 37 weeks). It is quite possible that most who give birth in an emergency room will have had previous vaginal deliveries, hence the precipitous nature of the labour and inability to get to a facility with an active obstetrical service. A successful vaginal birth history gives a very good indication that this delivery will go smoothly.

It is important to remain calm and provide both emotional and physical support to the labouring person, their partner and/or family. The goals of care are to prevent or minimize trauma by supporting the normal processes and movements of birth, and to create a positive lasting memory of the birth for the patient, partner and family. **Healthcare professionals should:**

- remain with the labouring person at all times
- ensure help is available to prepare for delivery
- provide support and care to the patient, partner and family
- provide care for the newborn baby

Ideally, a separate room should be available for the birth. All equipment should be kept in an area known to all staff and readily available for an imminent delivery.

It is **very important** to keep the baby's body temperature in the normal range (normothermia: between 36.5° and 37.5° C), and to avoid both hypothermia (<36.5° C) and hyperthermia (>38° C). The environment should be warm to minimize potential heat loss for the baby (CPS 2016). Additional ways to maintain normothermia include:

- immediate skin-to-skin contact of either parent with the baby
- using warmed towels or blankets when drying or covering baby
- closing windows and keeping the baby away from windows, outside walls, or any other potential sources of cold or drafts (e.g. vents).
- If the baby is placed in a warmer or incubator, it must be servo-controlled with a temperature sensor to ensure baby's temperature is maintained in the normal range.

Keep the baby's body temperature between 36.5° and 37.5° C

Standard provincial forms for labour and birth will help prompt your care; samples of these are in Appendix A and can be photocopied or requested from the RCP office.

Assisting with Birth: Step by Step...

Call for Assistance

There are at least **two patients** present at each delivery – the birthing person, and the baby.
Each will require a care provider.

Sound Confident and Reassuring



- ✓ Close up eye contact
- ✓ Make a physical connection e.g. touch their shoulder or arm
- ✓ Speak in a quiet confident voice
- ✓ Call them by name and use gender-inclusive language as requested
- ✓ Minimize the distraction and noise in the room, provide privacy

Position to Promote Delivery and Prevent Tissue Trauma



- Side-lying or tilted with the support of a pillow under their side is the best position to promote circulation, optimally oxygenate the baby and minimize trauma to the perineum
- ✓ If preferred, the patient can lean back against a person, wall, or bed
 - ✓ Encourage bearing down/pushing according to the patient's own preference (spontaneous with natural urges, or directed with Valsalva Manoeuvre (i.e. holding breath and counting))
 - ✓ Flex knees or encourage the birthing person to pull back on their knees while pushing during contractions
 - ✓ Wash hands and wear gloves
 - ✓ Get equipment ready



Scan using your portable device (phone or tablet) to view
 RCP's Simulation of Normal Vaginal Birth

Birth of the Head



- ✓ If the amniotic membranes have not yet ruptured and are bulging through the vagina, break them with your fingers or use an instrument (e.g. Allis clamp) to break the water. Note the color, quantity and odour of the fluid
- ✓ Hold a towel or sponge between the vagina and the anus and apply gentle pressure to support the perineum and to encourage continued flexion of the fetal head
- ✓ Maintain flexion with light pressure on the back of the baby's head
- ✓ Encourage light panting and gentle pushes as the head emerges to prevent the forceful expulsion of the head and perineal trauma
Do not pull on the baby's head

Check for the Cord



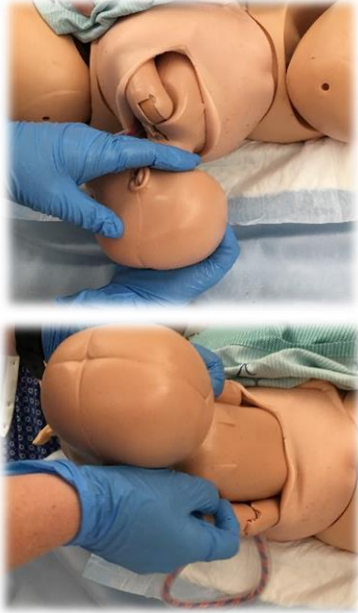
- ✓ Once the head is born, encourage the patient to stop pushing for a moment while you check for the umbilical cord around baby's neck
- ✓ You will have time before the next contraction to sweep your fingers around both sides of baby's neck, feeling for the cord
- ✓ If you feel cord, try to gently loosen it and bring it out over the baby's head. Sweep again in case it is looped twice; *OR*
- ✓ If you cannot loosen the cord, you may have to clamp it with two clamps, cut between the clamps, and unwind the cord
- ✓ If you have had to clamp and cut the cord, you will have to quickly deliver the baby

Restitution



- ✓ Allow the baby's head to spontaneously turn to face left or right
- ✓ Let the uterus do the work of turning the baby through the pelvis once the head is born
- ✓ As the baby restitutes (i.e. turns to one side or the other), the shoulders are lining up to move through the pelvic bones
- ✓ With a helper on each side, support both of the patient's legs to flex the hips while they bear down with the next contraction

Support the Head and Guide the Body



- ✓ Place a hand on either side of the baby's head for support
- ✓ The 'pushing power' comes from the birthing person and their uterus, **not** from the birth attendant pulling
- ✓ Move hands downward with the baby's head as you guide the upper (i.e. anterior) shoulder under the pubic arch
- ✓ Use a gentle downward motion; **never pull**
- ✓ Once the upper shoulder is delivered, **gently guide the baby's body without pulling in an upward direction over, not through, the perineum**
- ✓ Feel the contraction pushing the baby out with the help of a steady easy push from the patient (you can encourage them to gently 'help the baby along' with panting or easy grunting). This will help to prevent forceful expulsion and injury to the vagina and perineum

Baby's Born!



<https://www.flickr.com/photos/inferis/110652572/>

- ✓ Lift the baby onto their parent's abdomen or chest where they can see and hold the baby
- ✓ Keep the baby warm by placing them 'skin-to-skin' with the birthing parent (unless baby requires resuscitation – see page 19)
- ✓ As you gently dry the baby with warm towels, they should begin to cry vigorously
- ✓ Do not suction a vigorous baby
- ✓ Secretions are often present in a newborn's mouth and nose, and the baby can usually clear these independently (e.g. 'spitting up' or sneezing) or these may be wiped away with a soft cloth. Excessive secretions may be cleared using a bulb suction or a large-bore (10-12 F) catheter in the mouth, then nose, as required
- ✓ Cover both with warm, dry blankets
- ✓ Give oxytocin 10 units IM to the birthing parent
- ✓ **Remember to record the time of birth!**

Congratulations!

- ✓ Congratulate all and praise the birthing parent's efforts!

Cord Bloods

Deferred (delayed) umbilical cord clamping (DCC) for 60 to 120 seconds is recommended for any infant who does not require resuscitation (all gestations) When cord clamping cannot be deferred for a full 60 to 120 seconds, then DCC for at least 30 seconds is superior to immediate clamping. Disrupted utero-placental circulation is a contraindication for DCC.

- ✓ **Cord Blood:** Place two clamps on the cord and cut in between. If available, a plastic cord clamp may replace the clamp used on the baby's cord stump. From the cord that is still attached to the placenta, draw cord blood into a clotted blood specimen tube and label accordingly.
- ✓ **If possible, obtain Cord Blood Gases:** (Note: the larger vessel in the cord is the umbilical vein, the two smaller vessels are the umbilical arteries). Double clamp the cord and draw up 1) an arterial and 2) a venous specimen into labeled pre-heparinized syringes; cord blood samples are most accurate and stable at room temperature for 60 minutes. If not analyzed within 60 minutes, store the samples at 4-8 °C and document the time of analysis. A clamped blood-filled 20 cm segment of cord may alternatively be collected for delayed analysis.

Waiting for the Placenta



- ✓ Ideally, a member of the care team is observing and caring for the baby during skin-to-skin time, while another assesses bleeding while awaiting placental delivery. The placenta should come within a few minutes
- ✓ It is normal to see a small trickle of bright blood from the vagina after the baby is born but before the placenta is delivered
- ✓ You may see small tears in the skin or vaginal tissue; not all will need repair
- ✓ Signs of placental separation include:
 - ✓ Lengthening cord
 - ✓ Gush of blood
 - ✓ Rising of the uterus in the abdomen
- ✓ Do not massage the fundus (top of the uterus) or apply pressure in an attempt to 'assist' the delivery of the placenta
- ✓ **Very gentle** traction can be applied to the cord with the other hand supporting the uterus just above the pubic bone
- ✓ You may apply gentle traction with ring forceps to the amniotic membranes if they are somewhat adherent to the uterine wall
- ✓ **Massage** the fundus as soon as the placenta is delivered; it should be firm and palpable around the level of the umbilicus
- ✓ **Examine the placenta** to note that it is intact, with no apparent sections missing. Retained placental parts lead to postpartum haemorrhage

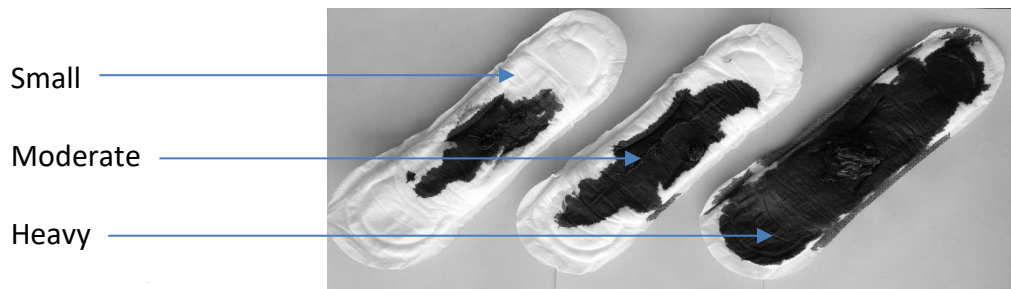
Assessment and Care Following Birth

Checks may be more frequent if indicated. At minimum, check postpartum patient's vital signs, bleeding, fundal height and tone, bladder fullness, and perineum:

- every 15-20 minutes for the first hour after birth,
- every hour for the next four hours, and then (if not transferred)
- once a day until discharge.

Bleeding

- Lochia will be red (rubra) and moderate to heavy within the first hour after delivery. Bleeding should not exceed the saturation of a pad within the first hour. You may have to check for pooling under the patient's buttocks/back and weigh sanitary pads to fully appreciate the degree of blood loss.



- If the parturient has any known risk factors for postpartum hemorrhage (e.g., previous history, precipitous birth, etc.) consider initiating a large bore IV as soon as possible, ideally prior to the birth.
- If the bleeding is excessive, massage the uterine fundus. Start an oxytocin infusion; add 20-40 units of oxytocin to 1 litre of 0.9% NaCl or RL and run at a rate of 100-125 mL/hour. This rate can be increased if necessary.
- If a continuous infusion or bolus of oxytocin IV and fundal massage does not control the bleeding, start a second IV line of NaCl (running wide open) and consider giving an alternate uterotonic such as:
 - Ergonovine maleate
 - Carboprost tromethamine (Hemabate) or
 - Misoprostol (Cytotec)

See Table (page 25) for recommended dosages and routes.

**Consult with a physician at your referral centre for advice
if management of excessive bleeding is required**

Vital Signs

- BP
- Pulse
- Respirations
- Temperature
- Pain

Fundal Height and Tone

- The fundus should be firm and palpated at the level of the umbilicus and in the midline of the abdomen.
- The flat of the hand should be used to palpate the fundus, while supporting the lower portion of the uterus with the other hand.



Postpartum Uterine Massage

Bladder

- The bladder should not be palpable.
- If the fundus is above the umbilicus or off from the midline this may indicate that the bladder is full. A distended bladder can interfere with uterine contractility leading to uterine atony and increased postpartum bleeding.
- If the bladder is distended encourage the patient to void. If they are unable to void on their own, it is appropriate to catheterize to prevent or control postpartum bleeding.

Perineum

- Perineal lacerations causing excessive bleeding should be repaired; small, minimal tears generally heal well.
- An ice pack is recommended to provide comfort and prevent or reduce swelling.

Neonatal Assessment and Care

First Impressions

- If the baby is vigorous at birth (crying, good tone, and HR >100 bpm) place the baby directly on the birthing parent's abdomen or chest. Defer clamping and cutting the cord for at least 30 to 60 seconds.
- Gentle massage while drying the infant with warm blankets or towels is usually all that is required to stimulate regular respirations.
- Healthy newborns seldom require more than a clear airway and adequate warmth.
- **Routine suctioning is not recommended.** If the baby has excessive secretions, it may be necessary to remove them by wiping the mouth and nose with a towel or by suctioning with a bulb syringe (*remember to depress the bulb before placing it in the mouth). Alternatively, you may consider using a large-bore (10-12 F) catheter to suction secretions from the mouth, then nose, if required. Suction pressure should be set at a maximum of 80-100 mmHg. Be careful not to suction vigorously or deeply as this can produce a vagal response. Brief, gentle suctioning with a bulb syringe is usually adequate to remove secretions.

Apgar scores are assigned at 1, 5, and 10 minutes:

Assessment	0	1	2	1 min	5 min	10 min
Heart Rate	Absent	Below 100	Above 100			
Respiratory Effort	Absent	Slow irregular	Good crying			
Muscle Tone	Limp	Some flexion	Active motion			
Reflex Irritability	None	Grimace	Cough sneeze			
Colour	Blue Pale	Body Pink with Blue extremities	All Pink			
Totals						

Baby Assessment for Apgar Scoring:

Heart Rate (HR): absent/not detected, less than 100 bpm, or greater than 100 bpm

- Auscultate HR or feel pulse at base of cord
- ECG (if you have access) may be helpful to identify HR, especially if it is low or difficult to palpate

- Provide positive pressure ventilation (e.g. bag and mask) if HR is less than 100 bpm
- Begin chest compressions if HR is less than 60 bpm after 30 seconds of **effective** (chest rising, bilateral air entry, heart rate is increasing) positive pressure ventilation.

Respiratory Effort: none → slow/irregular → vigorous crying

- Stimulate if respirations are absent or gasping.
- If baby is still not breathing effectively (includes gasping), initiate positive pressure ventilation (PPV) at 40-60 breaths/min.

Muscle Tone: limp → some flexion of limbs → active motion

Reflex Irritability: no response → facial grimace → coughing or sneezing

Colour: blue to pink

- Should turn centrally pink (lips, tongue, and central trunk) very quickly, hands and feet may stay pale to bluish for up to 24 hours. You may need to distinguish cyanosis from bruising.
- If the baby is breathing but appears blue, administration of supplemental oxygen is required. Attach a pulse oximetry probe on the baby's right hand or wrist. If the oxygen saturation levels are low and not increasing, you may need to provide just enough supplemental oxygen to help them achieve the targeted value for their age. This can be done by cupping your hand as a mask over the baby's nose and mouth while holding the oxygen tubing between your fingers (i.e. 'free-flow' oxygen). Try to avoid oxygenation that is either too high or too low – either can be harmful.

Targeted Preductal SpO₂ After Birth	
1 min	60% - 65%
2 min	65% - 70%
3 min	70% - 75%
4 min	75% - 80%
5 min	80% - 85%
10 min	85% - 95%

(AAP/CPS 2021)

Resuscitation

See page 19 for an overview of Neonatal Resuscitation, or Appendix B for the complete NRP Flow diagram and equipment list.

Medications

Universal screening for gonorrhea and chlamydia is recommended in pregnancy. In an emergency it's unlikely the birthing parent's screening results will be known, and so erythromycin eye ointment is indicated. (CPS position statement 2015) See medication details page 24.

Vitamin K 1mg IM (thigh) is administered to all babies within the first 6 hours after birth. A dose of 0.5mg is appropriate for infants weighing less than 1500 g. (CPS position statement reaffirmed 2016). Skin-to-skin contact or breastfeeding during administration is known to reduce the infant's pain experience.

Keeping Baby Warm

Maintaining the baby's body temperature may become a major challenge because you are unlikely to have a radiant warmer readily available (CPS 2016). It is essential for caregivers to provide warmth to newborn infants, as hypothermia and cold stress place a baby at increased risk for morbidity and mortality. Overheating a baby is also harmful, but is less likely to happen. Aim to maintain a newborn (axillary) body temperature of 36.5° – 37.5° Celsius.

Means to promote newborn normothermia (all babies):

- **Direct skin to skin** cuddling with a parent.
- Change wet blankets/towels and replace with dry blankets/towels that have been (ideally) warmed.
- Maintain room temperature at 23°C to 25°C.
- Check baby's temperature (per axilla) every 30 minutes for the first two hours.
- Keep baby away from sources of drafts (e.g. vents).
- Do not place baby on, in or near cold equipment, or near walls or windows.
- If a hat is not available, a cap fashioned out of stockinette may be used.
- Clean food-grade plastic wrap or a bag may be used to prevent heat loss through evaporation.

Smaller or preterm infants have more difficulty maintaining a normal body temperature, and it may be necessary to employ these supports in addition to the above:

- Clean food-grade plastic wrap or a bag
- Portable gel warming mattress

Some facilities in NS still have radiant warmers that were used when there was an active obstetrical service on site. We recommend that these not be used. The risks of infant injury from improper use or poorly functioning equipment outweigh the benefits. Gel warming mattresses may be used with caution (wrapped in a blanket or towel) to provide heat to

prevent or treat cold stress in at-risk infants waiting for or during transport. Blankets or IV bags should never be warmed in a microwave to provide heat to an infant.

Neonatal Resuscitation – An overview

Initial Assessment

- ✓ Term gestation?
 - ✓ Breathing or crying?
 - ✓ Good tone?
- } If 'yes' to all, baby stays with mother.

If 'no' to any of these, newborns require a different approach to resuscitation than adults. When a newborn requires resuscitation, it is usually caused by a problem with respiration leading to inadequate gas exchange.

The focus of neonatal resuscitation is effective ventilation of the baby's lungs:

A – Airway (30 seconds)

- Provide warmth
- Dry with towel or blanket (discard/replace when wet), and stimulate (gently rub the newborn's back, trunk, or extremities)
- Position the head and neck to open the airway (neutral or slightly extended position)
- Clear secretions if needed (e.g. suction mouth, then nose)

B – Breathing (30 seconds)

- Evaluate respirations and heart rate
- If apneic, gasping, or HR < 100 bpm, provide PPV with room air at a rate of 40-60/min.
- To ensure you are giving effective respirations (see indicators at right) you may need to reposition the head/neck or mask, use suction to clear secretions, or insert a laryngeal mask or endotracheal tube (if trained to do so).
- If HR < 60 bpm after **30 seconds of effective positive pressure ventilation**, start chest compressions and provide 100% oxygen

Effective PPV =

- Chest wall movement
- HR increasing to >100 bpm
- Improving tone and colour ("pinking up")

C – Circulation

- Ensure you have given at least 30 seconds of effective PPV before you consider beginning chest compressions.
- Coordinate effective PPV and chest compressions (3 compressions:1 breath).
- Use pre-ductal pulse oximeter (if available) and titrate oxygen to achieve target SpO₂ levels (page 17).
- Discontinue chest compressions when HR > 60 bpm; discontinue PPV and transition to free-flow oxygen when HR > 100 bpm and baby is breathing spontaneously.

Additional resuscitative measures are described in the NRP algorithm on page 40 (Appendix B).

Consult the MRP for neonates through EHS LifeFlight 1-800-743-1334

Transfer

When possible, it is ideal to transfer the labouring patient to a facility with an active obstetrical service. Furthermore, it is beneficial to transfer a baby in utero, especially when the need for special care is anticipated. **Transfer should not be attempted if it is suspected that birth may occur en route.**

Consult with an obstetrician at your regional centre or directly through LifeFlight regarding management and/or transfer. If the fetus is expected to need special care and prenatal transfer is not an option, the neonatal transport team (through contact with LifeFlight) should be notified to facilitate their presence at the birth or as soon as possible thereafter to care for the infant.

If it is necessary to transfer the baby after birth, parents will need information about parent rooms or courtesy rooms in the referral hospital. Staff should check with the receiving centre to ensure the availability of a room, as space is sometimes limited. If a parent room is not available, staff in referring hospitals can provide information about alternate accommodations for parents.

Regardless of where postpartum/postnatal care is provided, when they are both stable the baby should always remain with the birthing parent.

Active Obstetrical Service Directory

**Emergency Health Services – EHS LifeFlight – 1-800-743-1334
(For Prenatal/Postpartum and Newborn Transfer)**

Tertiary Centres:

Halifax: <i>IWK Health Centre</i> Birth Unit	902-470-6670
Sydney: <i>Cape Breton Regional Health Care Complex</i> Labour and Delivery Unit	902-567-7834

Regional Centres:

Amherst: <i>Cumberland Regional Health Care Centre</i> Switchboard	902-667-5400 Ext.6144
Antigonish: <i>St. Martha's Regional Hospital</i> Children's and Women's Health Unit	902-867-4200
Bridgewater: <i>South Shore Regional Hospital</i> Maternal/Child Unit	902-543-5214
Kentville: <i>Valley Regional Hospital</i> Switchboard	902-678-7381 Ext. 3050
New Glasgow: <i>Aberdeen Hospital</i> Switchboard	902-752-7600 Ext. 2530
Truro: <i>Colchester East Hants Health Centre</i> Maternal/Child Unit	902-893-5545
Yarmouth: <i>Yarmouth Regional Hospital</i> Switchboard	902-742-3541 Ext. 130

Equipment

Ideally, a warm separate area or private room should be available for labour and birth

- Keep all equipment in a designated area, where it is readily available for an imminent delivery.
- A copy of standard provincial documentation for labour and delivery will help prompt your assessments.

Sterile emergency delivery tray contents:	
✓	4 clamps (it is useful to have at least one pair of Kochers or an Allis clamp to rupture membranes if needed)
✓	1 pair curved scissors
✓	1 pair suture scissors
✓	Blood collection tube and stopper to indicate clotted specimen
✓	1 umbilical cord clamp
✓	1 small bowl
✓	1 towel
✓	bulb suction
✓	1 drape
✓	1 large pad suitable to place under the birthing patient's buttocks
✓	Sponges
✓	Gloves
<i>* Disposable emergency delivery trays are available. These are often more practical in a community hospital that does not provide obstetric services.</i>	

You will also need:

1. Several *warm* flannel blankets/towels to dry the infant. The infant should be placed skin-to-skin with the birthing parent (abdomen or chest) and both covered with clean, dry, warm linens. The infant should always be dried immediately; this can be done while skin-to-skin. Alternatively, the infant can be held skin-to-skin with the partner or other support people. You may also bundle the infant in 2 or 3 warm blankets/towels.
2. Warm, sterile water (to wash the perineum following birth)
3. Suction catheters (#6,8,10)
4. Sanitary pads
5. Ice pack for perineum (provides comfort and prevents swelling; can be made and stored

ahead by soaking a sanitary pad in water and placing it in the freezer. They must be wrapped in a light cloth to protect the perineum from the direct contact with ice).

6. 2 heparinized syringes for cord gases
7. Plastic bag for placenta
8. Identification bracelets: 1 for birthing parent, 1 for baby
9. Folder with RCP chart form package & necessary hospital laboratory requisitions
10. Newborn resuscitation equipment (Appendix B)

Medications for Obstetrical Emergencies and Routine Birth:
Recommended for Stock in Emergency Rooms

For Routine Birth

Drug Name / Level of Care	Use	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects	Reference
Erythromycin Eye Ointment <i>(All hospitals)</i>	Topical Antibiotic	If parental GC/CT status positive or unknown, use as prophylaxis for neonatal ophthalmia due to <i>N gonorrhoeae</i> or <i>Chlamydia trachomatis</i>	None known	Each eyelid should first be wiped gently with a sterile cotton ball to remove foreign matter and permit adequate eversion of the lower lid. A line of ointment 1 to 2 cm long is placed in each lower conjunctival sac, if possible covering the whole lower conjunctival area. After 1 min, any excess ointment should be wiped gently from the eyelids and surrounding skin with a sterile cotton ball.	Room temperature	Mild to Moderate symptoms of irritation.	Canadian Paediatric Society: Position Statement ID02-03 (March 2015; reaffirmed 2021)
Oxytocin <i>(All hospitals)</i>	Uterotonic; acts on the smooth muscle of the uterus to stimulate contractions	- Active Third Stage management - After placental delivery to control postpartum bleeding and prevent haemorrhage	Hypersensitivity to Oxytocin	- <i>Active Third Stage management</i> : 10 IU IM or 5 IU IV with the delivery of the anterior shoulder or immediately after the infant is delivered - <i>To control postpartum bleeding</i> : Add 20-40 IU to 1000 ml 0.9% NaCl and infuse at 100-150 mL/hr.	Room temperature	Hypotension, tachycardia, water intoxication, and ECG changes have been observed following the administration of concentrated solutions.	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Vitamin K <i>(All hospitals)</i>	necessary for synthesis in the liver of factor II (prothrombin), factor VII (proconvertin), factor IX (thromboplastin), and factor X.	Prevention of haemorrhagic disease of the newborn	none known	<i>Within 6 hours of birth</i> : Single IM dose of 0.5mg (birthweight 1500 g or less) or 1.0 mg (birthweight greater than 1500 g)	Room temperature	None known other than pain associated with injection (skin-to-skin contact or breastfeeding during injection decreases infants' pain experience)	Canadian Paediatric Society: Position Statement FN97-01 (reaffirmed 2018)

For Obstetrical Emergencies and Other Indications

Drug Name / Level of Care	Use	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects	Reference
Benzodiazepine <i>(All hospitals)</i>	Anticonvulsant - Anxiolytic - Hypnotic - Sedative	to control or prevent seizure activity	known hypersensitivity to benzodiazepines; myasthenia gravis; breastfeeding		Room temperature	<i>Maternal:</i> dose-dependent CNS side effects: dizziness, drowsiness. <i>Fetal:</i> hypotonia, lethargy, sucking difficulties	Compendium of Pharmaceuticals and Specialties, online version (e-CPS) 2017
Betamethasone (Celestone) <i>(Regional and tertiary)</i>	Corticosteroid; used to promote maturation of preterm infants. It is clinically proven to reduce perinatal mortality and the incidence of IVH and RDS in infants born prematurely.	When preterm birth between 24 and 34 weeks' gestation is expected within 7 days, betamethasone is given to the mother to affect fetal lung maturation .	Allergies to corticosteroids; systemic fungal infections	Betamethasone 12 mg IM q 24h x 2 doses. <u><i>Should only be administered in consultation with an obstetrician or neonatologist</i></u>	Room temperature	<i>Maternal:</i> Fluid retention and increased blood pressure; potential for increased serum blood glucose. <i>Fetal:</i> transient reduction in fetal heart rate variability and fetal movement. Because of insufficient scientific data from randomized clinical trials regarding efficacy and safety, repeat courses of corticosteroids should not be used routinely.	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Carboprost (Hemabate) <i>(Regional and tertiary)</i>	prostaglandin F _{2α} ; Uterotonic	For the treatment of postpartum haemorrhage due to uterine atony which has not responded to conventional methods of management	Cardiovascular, pulmonary, renal, or hepatic disease; known hypersensitivity to the preparation	0.25 mg deep IM or intramyometrial; may repeat every 15 minutes for a total dose of 2.0 mg (8 doses)	Refrigerate at 2 to 8° C	Nausea, vomiting, diarrhea, elevated B/P, pyrexia, headache, flushing, diaphoresis, restlessness	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Ergonovine maleate (Ergometrine) <i>(All hospitals)</i>	Uterotonic	For the treatment of postpartum haemorrhage due to uterine atony which has not responded to conventional methods of management	hypertension, preeclampsia, hypersensitivity to drug	0.2 – 0.25 mg IM/IV; may repeat every 2 hours. Onset of action: <1 minute (IV) 2-5 minutes (IM) Duration: 3 hours (IM) 45 minutes (IV)	Refrigerate at 2 to 8° C; Stable 60 days without refrigeration	peripheral vasospasm, hypertension, nausea, vomiting	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)

Drug Name / Level of Care	Use	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects	Reference
Hydralazine (Apresoline) <i>(All hospitals)</i>	vasodilator - antihypertensive	treatment of severe pre-eclampsia or eclampsia	drug allergy; systemic lupus; severe tachycardia; myocardial insufficiency due to mechanical obstruction; cardiac failure; aortic aneurysm	Initial dose 5 mg via slow IV injection; may repeat IV dose 5-10 mg q 30 minutes for total dose of 20 mg IV. Dosage must be individualized and titrated according to patient's blood pressure and fetal response; close monitoring of B/P and FHR is essential.	Room temperature	hypotension, tachycardia, palpation, anginal symptoms, flushing, headache, gastrointestinal disturbances, proteinuria, abnormal liver function tests	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Indomethacin (Indocid PDA) <i>(All hospitals)</i>	non-steroidal anti-inflammatory; tocolytic	For women with preterm labour in preparation for transfer to Level III facility.	allergy to ibuprofen or other NSAIDs, history of liver or kidney disease, blood or urine abnormalities	100 mg pr x 1 dose <u>Protocol provided for reference; please confirm with LifeFlight MCP</u>	Room temperature	<i>Maternal:</i> SOB, wheezing, tightness in chest; dependent edema, malaise, fever, loss of appetite, visual disturbances, confusion, depression, dizziness, lightheadedness, hearing problems; skin rash or hives, yellow discoloration of the skin or eyes: bloody or black tarry stools, rectal bleeding or discomfort when passing stools, vomiting or persistent indigestion, nausea, stomach pain, constipation or diarrhea; oliguria, dysuria, or change in urine colour. <i>Fetal/neonatal:</i> constriction of ductus arteriosus	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Labetalol (Trandate) <i>(All hospitals)</i>	antihypertensive- α - and β -blocker	treatment of pre-eclampsia or eclampsia	drug allergy; uncontrolled congestive heart failure; asthma; history of obstructive airway disease; > 1 ^o AV block; cardiogenic shock and states of hypoperfusion; sinus bradycardia	Start with 20 mg IV; repeat 20–80 mg IV q30min, or 1–2 mg/min, max 300 mg in 24 hours (then switch to oral). For severe hypertension, BP should be lowered to <160 mmHg systolic and <110 mmHg diastolic.	Room temperature	<i>Maternal:</i> hypotension, headache, fatigue, dizziness <i>Fetal/neonatal:</i> neonatal bradycardia	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)

Drug Name / Level of Care	Use	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects	Reference
Magnesium Sulphate (MgSO₄) (All hospitals)	CNS depressant Fetal neuroprotection	eclampsia (seizure) prevention or treatment. Preterm labour (<32 weeks)	antepartum haemorrhage, chorioamnionitis, hypocalcaemia, renal failure, myasthenia gravis	<i>Should be administered only under the continuous supervision of a health care professional familiar with the proper dosage, monitoring parameters, and the use of the antidote, Calcium Gluconate.</i> <u>Loading dose:</u> 4 gm bolus over 20 mins followed by a continuous infusion of 1 gm/hr. If solution is not premixed, withdraw 80 ml from a 1000 ml bag of RL. Add 40 mg (80 ml) MgSO ₄ 50% to the bag. The resultant concentration is 40 gm MgSO ₄ per 1000 ml.	Room temperature	hyporeflexia, respiratory depression/arrest, maternal hypotension, maternal/fetal hypocalcemia, pulmonary edema, cardiac arrest, generalized CNS depression of mother/fetus	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Misoprostol (Cytotec) (All hospitals)	Prostaglandin E1 analog; Uterotonic	For the treatment of postpartum haemorrhage due to uterine atony which has not responded to conventional methods of management	use caution with history of cardiovascular disease	600-1000 mcg per rectum, PO, or sublingual Dosage and route may vary depending on experience of prescriber	Room temperature	Nausea; vomiting; diarrhea; pyrexia; shivering	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)
Nifedipine (Adalat) (All hospitals)	antihypertensive - calcium channel blocker	treatment of severe pre-eclampsia or eclampsia	allergy to nifedipine, extreme bradycardia, severe congestive heart failure and/or severe left ventricular dysfunction; concomitant use of drugs known to affect cardiac conduction, 2 ^o or 3 ^o heart block	10 mg capsule to be swallowed (not chewed) Repeat 10 -20mg every 45 minutes; Maximum 50mg <u>Protocol provided for reference; please confirm with LifeFlight MCP</u>	Room temperature	vasodilatory effects; angina, congestive heart failure, pulmonary edema, tachycardia, bradycardia, excessive hypotension, skin rashes; arthritis and transient blindness	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021)

Drug Name / Level of Care	Use	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects	Reference
Penicillin G Sodium <i>(All hospitals)</i>	antibiotic; Group B streptococcal (GBS) disease prophylaxis or treatment	Treatment at time of labour or rupture of membranes: all women positive by GBS screening done at 35-37 weeks; women with infant previously infected with GBS; documented GBS bacteriuria; < 37 weeks gestation unless there is evidence of negative GBS screening in past 5 weeks; maternal fever.	allergy to penicillin	5 million IU IV, then 2.5 million IU IV q4h. <i>Women who are allergic and <u>not at risk</u> for anaphylaxis:</i> substitute Cefazolin 2 g IV then 1 g IV q8h. <i>Women who are allergic and <u>at risk</u> for anaphylaxis:</i> substitute clindamycin 900 mg IV q8h or erythromycin 500 mg IV q6h. <u>Protocol provided for reference; please confirm with LifeFlight MCP</u>		signs of sensitivity include: rash, urticaria, chills, fever, edema, arthralgia, anaphylaxis.	SOGC Clinical Practice Guideline #149 (2004); SOGC Clinical Practice Guideline #276 (2012)
Tranexamic Acid (TXA) (Cyklokapron) <i>(All hospitals)</i>	Fibrinolysis inhibitor; Second-line treatment of severe postpartum haemorrhage (PPH) following uterotonics	Active PPH associated with increased fibrinolysis (>500 mL blood loss after vaginal birth, or sufficient blood loss to cause hemodynamic instability).	Hypersensitivity to TXA or any component of the formulation. Injection: active intravascular clotting; subarachnoid hemorrhage Oral: Active thromboembolic disease; history of thrombosis or thromboembolism; intrinsic risk of thrombosis or thromboembolism.	Within 3 hours of PPH diagnosis: 1 g IV over 10 minutes Can be repeated if: <ul style="list-style-type: none"> - Bleeding persists after 30 minutes - Bleeding re-starts within 24 hours 	Room temperature	Nausea, vomiting, diarrhea. Dizziness, hypotension (especially with rapid infusion). Thromboembolic events. Vision colour disturbances (treatment should be discontinued).	Advances in Labour and Risk Management (ALARM) course manual, SOGC (2020-2021) NSH IV Drug Therapy Manual (2019) UpToDate (2022)

<p>WinRho <i>(All hospitals)</i></p>	<p>Rho (D) immune globulin</p>	<p>prevention of rhesus (Rh) alloimmunization</p>	<p>maternal Rh-positive status; maternal weak D (D^w) status; paternal Rh-negative status when paternity is certain</p>	<p><i>Postpartum nonsensitized Rh-negative woman delivering an Rh-positive infant: 300 µg IV or IM within 72 hours of delivery.</i></p> <p><i>Following miscarriage, threatened abortion, ectopic or partial molar pregnancy from 8 to 12 weeks: 120 µg IV or IM.</i></p> <p><i>Following miscarriage, threatened abortion, ectopic or partial molar pregnancy >12 weeks: 300 µg IV or IM.</i></p>	<p>Store in refrigerator; may need to obtain from blood bank</p>	<p>Blood product reactions</p>	<p>SOGC Clinical Practice Guideline #133 (2003)</p> <p>Rh Program of NS (2022) Guideline for Rh prophylaxis before 8 weeks (56 days) gestation for Early Pregnancy Complications and Medical Abortions</p>
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Laboratory Tests

TIP: Keep corresponding requisitions with the emergency delivery equipment and chart forms.

Cord Blood:

- ABO, Rh and DAT (Direct Antiglobulin Test)
- Following birth, collect at least 1 mL into a 10 mL clotted blood collection tube.
- Carefully label and refrigerate.
- Forward to laboratory with the appropriate requisition as soon as possible.

Cord Blood Gases:

- From a separate section of cord and using preheparinized syringes, draw up a specimen from the umbilical artery (smaller blood vessel) and the umbilical vein (larger vessel); label accordingly and send for blood gas analysis. Alternatively these specimens may be refrigerated for later analysis.

Rh Positive:

- Healthy birthing parents who are Rh-positive do not require routine laboratory testing unless there are specific indications (i.e. CBC related to blood loss, rubella or varicella titre if immunization status is unknown or unsure).

Rh Negative patients who have given birth, or those with antibodies (alloimmunized):

- ABO, Rh type & Antibody screen
- Within twelve hours following delivery, collect and fill two 10 mL clotted blood tubes
- Complete appropriate requisition.

Rh Negative birthing patients with Rh positive or Rh unknown baby:

- Kleihauer
- Within twelve hours following delivery, collect sample using one 4 mL EDTA tube.
- Complete appropriate requisition.

PRN Bloodwork:

- CBC
- Rubella and/or varicella titre if immune status is unknown

Newborn Bloodwork:

Laboratory screening tests routinely done for full term healthy newborns include metabolic and endocrine screening (e.g. PKU screening), and a screen for bilirubin level. Blood

samples are typically collected at 24-48 hours of age.

Documentation

Documenting the events of an unexpected delivery in an emergency or outpatient department can be overwhelming. Even for experienced caregivers who routinely attend deliveries it can be challenging to maintain accurate and contemporaneous documentation. Much of the documentation of the birth can be done after the birth has occurred and all are assessed to be healthy and safe in the immediate postpartum/postnatal period. Noting and remembering the time of birth is one important aspect of care and can be documented on the birth record as soon as circumstances permit.

Keeping a small stock of RCP forms for use during unexpected births can help promote the best care possible. These forms can help prompt caregivers to initiate appropriate assessments and treatments such as the timing of routine intrapartum/postpartum and neonatal assessments and the administration of medications routinely used in care. While some of the forms may not be applicable, depending on the duration of stay, the maternal assessment forms, partogram, birth record, and newborn assessment forms will be helpful and necessary to use for any birth even if a transfer is indicated shortly thereafter.

RCP chart forms in order of their chart form number (for ordering purposes) are:

- RCP/01: Preadmission Maternity Assessment
- RCP/02: Maternal Assessment
- RCP/03: Labour Partogram
- RCP/04: Birth Record
- RCP/07: Maternal & Newborn Progress Notes
- RCP/08: Newborn Admission/Discharge
- RCP/09: Newborn Nursing Assessment
- RCP/10: Newborn TPR

Refer to **Appendix A** to see sample RCP chart forms.

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Appendix A

Samples of Standard Documentation for Labour and Birth

To be used only for labour assessment prior to or upon admission to labour/delivery area, provided the prenatal record is present on the chart and record has been reviewed. Otherwise the regular Medical History and Physical format should be used.

Date: _____ Time: _____

Age _____ Gravida _____ Para _____ Abortion _____ Stillbirth _____ Neonatal Death _____

Best estimate of gestational age _____ weeks. If uncertain, describe: _____

SUMMARY OF SIGNIFICANT PROBLEMS in current pregnancy and past history:

LABOUR ASSESSMENT

Estimate of when regular contractions became established Date: _____ Time: _____

Membranes ruptured No Yes Questionable Date: _____ Time: _____

Meconium present No Yes

PHYSICAL ASSESSMENT

BP _____ Cardiopulmonary Status Normal Abnormal Describe _____

Fundal Height _____ cm. Presentation _____ Engagement No Yes

Estimated Fetal Weight _____ FHR _____

PELVIC EXAM	0	1	2	3
Dilation	0	1-2	3-4	5-6
Effacement %	30	40-50	60-70	80
Station	-3	-2	-1,0	+1, +2
Consistency	firm	med.	soft	
Position	post.	mid.	ant.	

BISHOP SCORE _____

ADDITIONAL HISTORY OR CLINICAL EVALUATION:

SIGNATURE / STATUS / PRINT NAME: _____

Date: _____ Time: _____

Reason for assessment: _____

G _____ P _____ A _____ NND _____ SB _____

Blood Group/Rh: _____ 28 wk Rho(D) Inj. received: No Yes

Support Person(s): _____

Relationship: _____

Primary Care Provider: _____

LMP: _____ Known Unsure

EDD: _____ by LMP, or U/S @ _____ weeks

Gestation: _____ weeks

Current Health and History:

Previous Pregnancy / Delivery:

Medical History:

Substance Use:

Smoking: No Yes Amt/day: _____

Alcohol: No Yes Amt/week: _____

Cannabis: No Yes Frequency: _____

Other: No Yes Describe: _____

Intimate Partner Violence: No Yes

Psychosocial Concerns: No Yes

Describe: _____

Labour and Birth Plan: Written Verbal

Key Points: _____

Pain relief choices:

Non-Pharmacological: _____

Pharmacological: _____

Prenatal Education:

Classes Other: _____

Infant Feeding Choices:

Breast Other: _____

Previous BF experiences: No Yes

Describe: _____

PLAN OF CARE Attending Care Provider: _____ notified @ _____ hr.

Admitted to room # _____ Reason: _____

Date: _____ Time: _____

Transferred to: _____ Date: _____ Time: _____

Discharged home Date: _____ Time: _____

Signature/Status/Print Name: _____

For Induction Indication: _____

Booked C/S Indication: _____

Date: _____

ALLERGIES: _____

Current Medications:

Rubella: Immune Non-immune Unknown

Varicella: Immune Non-immune Unknown

HIV: Negative Positive Unknown

Hepatitis B: Negative Positive Unknown

GC/Chlamydia Screening: Date (most recent screen): _____

Gonorrhea Negative Positive Unknown

Chlamydia Negative Positive Unknown

GBS Status: Negative Positive Unknown

Maternal Vitals TPR: _____ / _____ / _____ BP: _____

Pre-preg. Wt: _____ ht: _____ BMI: _____

Current Wt: _____ Weight Gain: _____

Lab Tests:

Labour: No Yes N/A

Contractions started: _____

Contractions on assessment: Q _____ x _____

Palpated Mild Moderate Strong

IFN: No N/A Yes: Neg. Pos.

Cervix: _____ cm _____ station _____ %eff. _____ position

Examined by: _____

Membranes:

SRM: No Suspected Yes: date/time: _____

Colour and volume of fluid: _____

Feming: No Yes Not done

Fetal: Presentation: _____ Position: _____ FH: _____ cm

FM: Active (≥ 6 / 2 hours) Decreased

FHR: _____ bpm IA EFM: Indication: _____

Interpretation: _____

NST (if indicated): Normal Abnormal

If abnormal, plan for care: _____

BPP score: _____ U/S: _____

NOTES



Reproductive
Care Program
of Nova Scotia
RCP PARTOGRAM

Gravida: _____ Para: _____ Gestation: _____ weeks
 Blood group/Rh: _____ Antibodies: _____
 Date/time active labour established: _____
 Date/time of membrane rupture: _____
 Group B Strep positive? Yes No Unknown

Birth Plan: _____ Support person(s): _____
 Risk factors/concerns: _____

Date		Time												
Hours	Time	0	1	2	3	4	5	6	7	8	9	10	11	12
Cervical Dilatation (C) Station (S)	9													
	-3													
	-2													
	-1													
	0													
	1													
	2													
	3													
	4													
	5													
6														
7														
8														
9														
10														
11														
12														

Vaginal Examination:
 Effacement: _____
 % or cm long
Cx Position:
 (A) anterior, (M) mid,
 (P) posterior
Presenting Part Position:
 (L) left or (R) right,
 (O) occiput or
 (Ob) other; (A) anterior,
 (P) posterior or
 (T) transverse
Moulding/Caput:
 (M) moulding (C) caput
Amniotic Fluid:
 (O) absent, (Sc) scant,
 (Mod) moderate, or
 (L) large; (C) clear,
 (B) bloody, or
 (Mec) meconium present
Blood/Show:
 (Sc) scant,
 (Mod) moderate, or
 (L) large

Document Medications on Medication Administration Record and Birth Record

Patient and Family Teaching					
Topic	Initials	Topic	Initials	Topic	Initials
Labour Progress		Induction/Augmentation		Second Stage of Labour	
Breathing/Relaxation Techniques		Birth Plan		Cesarean Birth	
Positioning for Labour and Birth		Pain Relief Options		Preterm Birth	
Third Stage of Labour		Infant Feeding		Baby Friendly Practices	

Signatures

Print Name	Signature/Status	Initials



PARTOGRAM Page _____ of _____


Date		Time												
Fetal Health Surveillance	Mode (IA or EFM *indication)													
	Rate (beats/minute)													
	Rhythm (IA: regular or irregular)													
	Variability (absent, min., mod., marked)													
	Accelerations (Yes or No)													
Contractions	Decels (no, var., early, late, prolonged)													
	Classification (Normal, Atyp, Abn)													
	Frequency (number in 10 minutes)													
	Duration (seconds)													
	Intensity (mild, mod., strong OR mmHg)													
Oxytocin dose (mIU/minute)	Resting tone (soft, firm OR mmHg)													
	Augmentation <input type="checkbox"/> Induction <input type="checkbox"/>													
	started at _____ h. (Init.)													
	Fresh Eyes (Initial)													
	Blood pressure													
Regional Analgesia	Temperature, Pulse, Respirations													
	Oxygen Saturation													
	Somnolence Score													
	Patient Position													
	Other (e.g. glucose, reflexes)													
Regional Analgesia	Bladder assessment													
	<input type="checkbox"/> Epidural <input type="checkbox"/> Spinal <input type="checkbox"/> Combined <input type="checkbox"/> PCEA Bolus at _____ h. Continuous infusion at _____ h.													
	Dr. Infusion Rate													
	Bolus (PCEA)													
	Dermatome at or below T4 <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No													
Regional Analgesia	Bromage 4-6 <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No													
	Initials													



PARTOGRAM Page _____ of _____

Date		Time												
Fetal Health Surveillance	Mode (IA or EFM *indication)													
	Rate (beats/minute)													
	Rhythm (IA: regular or irregular)													
	Variability (absent, min., mod., marked)													
	Accelerations (Yes or No)													
Contractions	Decels (no, var., early, late, prolonged)													
	Classification (Normal, Atyp, Abn)													
	Frequency (number in 10 minutes)													
	Duration (seconds)													
	Intensity (mild, mod., strong OR mmHg)													
Oxytocin dose (mIU/minute)	Resting tone (soft, firm OR mmHg)													
	Augmentation <input type="checkbox"/> Induction <input type="checkbox"/>													
	started at _____ h. (Init.)													
	Fresh Eyes (Initial)													
	Blood pressure													
Regional Analgesia	Temperature, Pulse, Respirations													
	Oxygen Saturation													
	Somnolence Score													
	Patient Position													
	Other (e.g. glucose, reflexes)													
Regional Analgesia	Bladder assessment													
	<input type="checkbox"/> Epidural <input type="checkbox"/> Spinal <input type="checkbox"/> Combined <input type="checkbox"/> PCEA Bolus at _____ h. Continuous infusion at _____ h.													
	Dr. Infusion Rate													
	Bolus (PCEA)													
	Dermatome at or below T4 <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No													
Regional Analgesia	Bromage 4-6 <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No													
	Initials													



Grav _____ Para _____ Ab _____ SB _____ NND _____ EDD _____ Gest _____ wks GBS Status: <input type="checkbox"/> Neg. <input type="checkbox"/> Pos. <input type="checkbox"/> Unknown Preg/Med complications: _____	MEMBRANE RUPTURE <input type="checkbox"/> SRM Date _____ <input type="checkbox"/> Suspected Time _____ <input type="checkbox"/> ARM Duration _____ Meconium <input type="checkbox"/> No <input type="checkbox"/> Yes Time first noted _____ <input type="checkbox"/> Maternal fever > 38 in labour																																												
INITIATION/PROGRESS OF LABOUR <input type="checkbox"/> Spontaneous onset <input type="checkbox"/> Oxytocin augmentation <input type="checkbox"/> Induction: reason _____	INDUCTION METHOD <input type="checkbox"/> Cervical Ripening: Type _____ <input type="checkbox"/> ARM <input type="checkbox"/> Oxytocin <input type="checkbox"/> Mechanical (catheter)																																												
1st STAGE ESTABLISHED Date _____ Time _____ 2nd STAGE ONSET Date _____ Time _____ BIRTH Date _____ Time _____ Position at birth _____			Medications (to mother within 24 hours before birth) Time _____ Drug / Dose / Route _____																																										
<input type="checkbox"/> Spontaneous <input type="checkbox"/> C/S: reason _____ <input type="checkbox"/> Vacuum (&/or) <input type="checkbox"/> Forceps: reason _____ <input type="checkbox"/> Mid <input type="checkbox"/> Mid <input type="checkbox"/> Retention <input type="checkbox"/> Low <input type="checkbox"/> Low <input type="checkbox"/> Manual or <input type="checkbox"/> Forceps <input type="checkbox"/> Outlet <input type="checkbox"/> Outlet <input type="checkbox"/> Attempted Only <input type="checkbox"/> Other Intervention (e.g. Breech Extraction) _____			BABY <input type="checkbox"/> Female <input type="checkbox"/> Male Weight _____ (g) APGAR <table border="1" style="width:100%; text-align: center;"> <tr> <th></th> <th>0</th> <th>1</th> <th>2</th> <th>1 Min</th> <th>5 Min</th> <th>10 Min</th> </tr> <tr> <td>Heart Rate</td> <td>Absent</td> <td>Below 100</td> <td>Above 100</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Resp. Effort</td> <td>Absent</td> <td>Slow irregular</td> <td>Good crying</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Muscle Tone</td> <td>Limp</td> <td>Some flexion</td> <td>Active motion</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Reflex Irritab.</td> <td>None</td> <td>Grimace</td> <td>Cough sneeze</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Colour</td> <td>Blue Pale</td> <td>Body Pink Blue extrem</td> <td>All Pink</td> <td></td> <td></td> <td></td> </tr> </table>		0	1	2	1 Min	5 Min	10 Min	Heart Rate	Absent	Below 100	Above 100				Resp. Effort	Absent	Slow irregular	Good crying				Muscle Tone	Limp	Some flexion	Active motion				Reflex Irritab.	None	Grimace	Cough sneeze				Colour	Blue Pale	Body Pink Blue extrem	All Pink			
	0	1	2	1 Min	5 Min	10 Min																																							
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Reflex Irritab.	None	Grimace	Cough sneeze																																										
Colour	Blue Pale	Body Pink Blue extrem	All Pink																																										
PLACENTAL DELIVERY Date _____ Time _____ <input type="checkbox"/> Spontaneous <input type="checkbox"/> Assisted <input type="checkbox"/> Manual Umbilical Vessels <input type="checkbox"/> 3 <input type="checkbox"/> 2 Cord gtt done <input type="checkbox"/> No <input type="checkbox"/> Yes Abnormalities: describe _____ Oxytocin <input type="checkbox"/> No <input type="checkbox"/> Yes Type: _____ Dose: _____ Route: _____ Infusion postpartum _____ PPH <input type="checkbox"/> No <input type="checkbox"/> Yes Estimated blood loss: <input type="checkbox"/> <500ml <input type="checkbox"/> 500 - 1000 ml <input type="checkbox"/> >1000ml			APGAR Score Totals Erythromycin Eye Ointment: _____ (if indicated) Signature _____																																										
EPISIOTOMY <input type="checkbox"/> None <input type="checkbox"/> None <input type="checkbox"/> 3rd (anal sphincter) <input type="checkbox"/> Midline <input type="checkbox"/> 1st (vaginal) <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> Mediolateral <input type="checkbox"/> 2nd (perineal) <input type="checkbox"/> 4th (rectal mucosa) Suture required: <input type="checkbox"/> No <input type="checkbox"/> Yes Count verified: <input type="checkbox"/> Sutures <input type="checkbox"/> Sponges	LACERATIONS <input type="checkbox"/> None <input type="checkbox"/> 1st (vaginal) <input type="checkbox"/> 2nd (perineal) <input type="checkbox"/> 4th (rectal mucosa) Suture required: <input type="checkbox"/> No <input type="checkbox"/> Yes Count verified: <input type="checkbox"/> Sutures <input type="checkbox"/> Sponges		RESUSCITATION (duration) <1 min. 1-3 min >3 min. Max. % or duration O2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> PPV <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ET tube (ventilation) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> LMA <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> CPAP <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Chest compressions <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>																																										
ANALGESIA / ANAESTHESIA <input type="checkbox"/> None <input type="checkbox"/> Narcotic <input type="checkbox"/> Spinal <input type="checkbox"/> Epidural <input type="checkbox"/> Nitrous Oxide <input type="checkbox"/> General <input type="checkbox"/> Other _____			Tracheal suctioning <input type="checkbox"/> No <input type="checkbox"/> Yes Meconium below cards <input type="checkbox"/> No <input type="checkbox"/> Yes Epinephrine <input type="checkbox"/> No <input type="checkbox"/> Yes Other med <input type="checkbox"/> No <input type="checkbox"/> Yes Delayed Cord Clamping <input type="checkbox"/> < 30 sec. <input type="checkbox"/> 30 to 60 sec. <input type="checkbox"/> > 1 min to 3 min <input type="checkbox"/> > 3 min Cord Milking (if delayed cord clamping not feasible) <input type="checkbox"/> No <input type="checkbox"/> Yes																																										
COMMENTS _____ _____ _____			<input type="checkbox"/> Stillbirth Date/Time last FHR _____ Date/Time last FM _____																																										
Signature(s) of MD/MW Attending Birth _____ / _____ Signature(s) of RN Attending Birth _____ / _____			 NSRCBIR																																										

DATE & TIME	PROGRESS NOTES	STATUS



NEWBORN ADMISSION/DISCHARGE
(Including stillbirths)

Initial Assessment							
General Appearance: <input type="checkbox"/> Transitioning Well <input type="checkbox"/> If no, describe below:							
Infant Surname, First name (if known) _____ Mother's Name _____							
DOB _____ Time _____ Sex _____	Delivery: <input type="checkbox"/> SVD <input type="checkbox"/> Vacuum <input type="checkbox"/> Forceps <input type="checkbox"/> Cesarean						
Gest. Age by Assessment (weeks/days) _____ Gest. Age by Best Prenatal Estimate (weeks/days) _____	Appar: @1 _____ @5 _____ @10 _____ <input type="checkbox"/> Resuscitation						
Exam: <37 weeks (Preterm) _____ ≥37 weeks (Term) _____	<input type="checkbox"/> At risk for complications <input type="checkbox"/> Labour induced (indication): _____						
Breast Tissue <input type="checkbox"/> ≤3mm <input type="checkbox"/> >3mm	GBS Status: _____ Rx >4hours: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Plantar Creases <input type="checkbox"/> Smooth, single crease <input type="checkbox"/> Cover anterior 1/3 or more	Normal Prenatal Ultrasound: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Ear Pinna <input type="checkbox"/> Relatively flat, pliable <input type="checkbox"/> Stiff cartilage, deep crease at outer aspect	Skin-to-skin first hour(s): <input type="checkbox"/> Yes <input type="checkbox"/> No, why: _____						
Genitalia: Male <input type="checkbox"/> Testes in canal <input type="checkbox"/> Testes well within scrotum	Breastfeed first hour(s): <input type="checkbox"/> Yes <input type="checkbox"/> No, why: _____						
Female <input type="checkbox"/> Labia Minora visible <input type="checkbox"/> Labia Majora cover Minora	Erythromycin eye prophylaxis: <input type="checkbox"/> No <input type="checkbox"/> Yes, why: _____						
Comprehensive Physical Exam Completed within 24h of birth *guide on reverse side of form							
Birth Weight (g) _____ Length (cm) _____ Head Circ. (cm) _____ <input type="checkbox"/> SGA <input type="checkbox"/> LGA	Describe findings other than normal:						
Skin <input type="checkbox"/> Normal <input type="checkbox"/> Soft tissue wasting: <input type="checkbox"/> Moderate <input type="checkbox"/> Severe							
Head, Neck <input type="checkbox"/> Normal <input type="checkbox"/> Palate Intact							
<input type="checkbox"/> Red reflex: L _____ R _____ <input type="checkbox"/> Unable to obtain <input type="checkbox"/> Follow-up req'd							
Arms, Clavicles, Hands <input type="checkbox"/> Normal							
Cardiac <input type="checkbox"/> Normal <input type="checkbox"/> Femoral pulses <input type="checkbox"/> Murmur							
Respiratory <input type="checkbox"/> Normal							
Abdomen <input type="checkbox"/> Normal Cord: <input type="checkbox"/> Single UA <input type="checkbox"/> Double UA							
Spleen: _____ cm Liver: _____ cm							
Anus <input type="checkbox"/> Normal <input type="checkbox"/> Passed meconium							
Genitourinary <input type="checkbox"/> Normal <input type="checkbox"/> Passed urine	CCHD Screening final results: <input type="checkbox"/> Pass <input type="checkbox"/> Refer						
Hips, Legs, Feet <input type="checkbox"/> Normal <input type="checkbox"/> Barlow/Ortolani: L _____ R _____	<table border="1"> <tr> <th>Right hand</th> <th>Foot</th> <th>% Difference</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Right hand	Foot	% Difference			
Right hand	Foot	% Difference					
Back <input type="checkbox"/> Normal	Age when screened: _____ hours						
Neurologic <input type="checkbox"/> Normal <input type="checkbox"/> Reflexes <input type="checkbox"/> Unable to obtain reflexes	<input type="checkbox"/> Declined <input type="checkbox"/> Not clinically appropriate						
Date: _____ Time: _____ Print Name: _____	Signature/Status: _____						
Discharge							
<input type="checkbox"/> Discharge Physical Completed Discharge weight: _____(g)	Newborn Screening:						
Comments: _____	<input type="checkbox"/> Bilirubin: last TSB _____ μmol/L Date: _____ Time: _____						
	<input type="checkbox"/> To be repeated (date/time): _____						
	<input type="checkbox"/> Phototherapy (describe): _____						
Feeding <input type="checkbox"/> Breastfeeding <input type="checkbox"/> EBM <input type="checkbox"/> Exclusive <input type="checkbox"/> with Supplementation	DAT: _____ Blood type: _____						
<input type="checkbox"/> Formula: _____ <input type="checkbox"/> Medically Indicated	<input type="checkbox"/> Newborn screening blot: Date: _____ <input type="checkbox"/> To be arranged						
Indications for supplementation: _____	Other test results: _____						
Feeding issues: _____	<input type="checkbox"/> Refer to Additional Dictation <input type="checkbox"/> not applicable						
Discharge/Follow up plan: _____							
Primary Care Provider appt: _____	Consults: _____						
(FP/NP/IR) <input type="checkbox"/> Booked: _____							
<input type="checkbox"/> Parent to arrange <input type="checkbox"/> No provider	NSHSC Hearing Screen: OAE / AABR Pass / Refer						
<input type="checkbox"/> PHN referral indicated <input type="checkbox"/> Fax copy (if applicable) to: _____	<input type="checkbox"/> Hearing screen to be arranged						
Date/Time _____ Print Name/Signature/Status _____	Date/Time _____ Print Name/Signature/Status _____						



NSRCPN

A brief examination should occur within the first few minutes of life to:

- Assess for signs of successful transition to the extra- uterine environment
- Determine sex
- Identify significant congenital anomalies
- Reassure parents

In the healthy baby this examination should be undertaken while the baby maintains 'skin to skin' with the mother.

Every newborn baby should receive a comprehensive physical examination within 24h of birth. **If the baby is unwell or premature, this examination may be staged as clinically indicated.** If baby is preterm use the New Ballard Score for maturation assessment of gestational age. Findings should be documented and the results discussed with parents. A follow up comprehensive examination is recommended within the first 7-10 days of birth. All parents are contacted within 1-3 days of discharge to determine ongoing needs/supports required.

Components of the Comprehensive Newborn Physical Exam:

General Appearance

- Skin color
- State of Alertness
- Activity
- Range and symmetry of spontaneous movement
- Posture
- Muscle Tone

Growth Status

- Weight and Length
- Head Circumference

Skin

- Colour
- Texture
- Integrity
- Anomalies

Head

- Shape and symmetry
- Scalp
 - Caput
 - Cephalohematoma
- Anterior and posterior fontanelles
- Sutures

Face

- Symmetry of structure, features and movement
- Eyes
 - Size and structure
 - Position in relation to the nasal bridge
 - Red Reflex
- Ears
 - Position and structure
- Nose:
 - Position and symmetry of nares and septum
 - Patency of nares bilaterally
- Mouth
 - Size
 - Symmetry of movement
 - Shape and structure - lips, palate, tongue
- Jaw size

Neck

- Structure/ Lymph nodes/ Thyroid palpable
- Symmetry of movement
- Range of movement

Clavicles, Arms and Hands

- Length
- Proportion
- Symmetry
- Hand creases
- Structure and number of digits

Chest/Cardiorespiratory

- Chest
 - Chest size, shape, symmetry
 - Breast tissue
 - Number and position of nipples
- Respiratory
 - Chest movement and effort with respiration
 - Breath sounds/Airway
 - Respiratory rate
- Cardiac
 - Skin colour - central/peripheral
 - Heart sounds
 - Heart rate
 - Heart rhythm
 - Pulse Oximetry
 - Pulses: brachial, femoral

Abdomen

- Shape and symmetry
- Major organs (liver and spleen, palpable, size)
- Umbilicus (number of vessels)

Genitourinary

- Has the baby passed urine?
- Inguinal hernia , Lymph nodes
- Genitalia: Male, female, ambiguous
 - Male: penis, foreskin, testes
 - Female: clitoris, labia, hymen

Anus

- Position
- Patency - Has the baby passed meconium?

Hips, Legs and Feet

- Use Ortolani and Barlow's maneuvers to assess hips for stability
- Legs and feet:
 - Length and proportion
 - Symmetry
 - Anomalies (e.g. club feet)
 - Structure and number of digits

Back

- Spinal column /Ribs
- Scapulae and buttocks for symmetry
- Skin (sacral dimple/sinus)

Neurologic

- Behavior
- Posture
- Muscle tone
- Movements
- Cry
- Reflexes: Babinski, grasp, moro ,rooting, stepping, suck



NEWBORN NURSING ASSESSMENT

Birth Date	Birth Time	Sex	Band #
Birth Wt (g)	Head Circ. (cm)	Length (cm)	
Blood Group	Feeding	<input type="checkbox"/> Breast	<input type="checkbox"/> Exclusive
Mother	Baby	<input type="checkbox"/> With suppl.	<input type="checkbox"/> Formula
GESTATIONAL AGE ASSESSMENT			
< 37 WEEKS (Preterm)		≥ 37 WEEKS (Term)	
BREAST TISSUE	<input type="checkbox"/> ≤ 3 mm	<input type="checkbox"/> > 3 mm	GESTATIONAL AGE
PLANTAR CREASES	<input type="checkbox"/> Smooth, Single Crease	<input type="checkbox"/> Covering Ant. 1/3 or More	By Dates _____ wks.
EAR	<input type="checkbox"/> Relatively Flat, Pliable	<input type="checkbox"/> Stiff Cartilage, Deep Crease at Outer Aspect	By Assessment _____ wks.
GENITALIA	Male <input type="checkbox"/> Testes In Canal	<input type="checkbox"/> Testes well within Scrotum	
	Female <input type="checkbox"/> Labia Minora visible	<input type="checkbox"/> Labia Majora cover Minora	
HEAD TO TOE ASSESSMENT			
NORMAL		ABNORMAL (comment on abnormalities)	
1. GENERAL APPEARANCE	<input type="checkbox"/>	<input type="checkbox"/>	
2. SKIN	<input type="checkbox"/>	<input type="checkbox"/> Erupting	<input type="checkbox"/> Peeling
		<input type="checkbox"/> Petechiae	<input type="checkbox"/> Jaundice
		<input type="checkbox"/> Meconium Stain	<input type="checkbox"/> Other
		<input type="checkbox"/> Edema	
		<input type="checkbox"/> Soft tissue wasting	<input type="checkbox"/> Moderate <input type="checkbox"/> Severe
3. HEAD	<input type="checkbox"/>	<input type="checkbox"/> Overriding suture	<input type="checkbox"/> Molding <input type="checkbox"/> Caput
		<input type="checkbox"/> Hematoma	<input type="checkbox"/> Other
4. EENT	<input type="checkbox"/>	<input type="checkbox"/> Cleft Lip/Palate	<input type="checkbox"/> Other
		<input type="checkbox"/> Suspected Choanal Atresia	
5. RESP	<input type="checkbox"/>	<input type="checkbox"/> Grunting	<input type="checkbox"/> ↓ Breath Sounds
		<input type="checkbox"/> Nasal Flaring	<input type="checkbox"/> Tachypnea
		<input type="checkbox"/> Retracting	<input type="checkbox"/> Other
6. CVS	<input type="checkbox"/>	<input type="checkbox"/> Murmur	<input type="checkbox"/> Central Cyanosis
		<input type="checkbox"/> Arrhythmia	<input type="checkbox"/> Absent Femoral Pulses
		<input type="checkbox"/> Tachycardia	<input type="checkbox"/> Other
7. ABDOMEN	<input type="checkbox"/>	<input type="checkbox"/> Scaphoid	<input type="checkbox"/> Other
		<input type="checkbox"/> Disended	
8. UMBILICAL CORD	<input type="checkbox"/>	<input type="checkbox"/> Meconium Stain	<input type="checkbox"/> Thin
		<input type="checkbox"/> 2 Vessels	<input type="checkbox"/> Other
9. MUSCULO-SKELETAL	<input type="checkbox"/>	<input type="checkbox"/> Spine	<input type="checkbox"/> Foot abnormal
		<input type="checkbox"/> Hip abnormal	<input type="checkbox"/> Other
		<input type="checkbox"/> Clavicle	
10. GENITO-RECTAL	<input type="checkbox"/>	<input type="checkbox"/> Hydrocele	<input type="checkbox"/> Imperforate anus
		<input type="checkbox"/> Hypospadias	<input type="checkbox"/> Other
		<input type="checkbox"/> Undescended Testes	
11. CNS	<input type="checkbox"/>	<input type="checkbox"/> ↓ Tone	<input type="checkbox"/> ↑ Tone <input type="checkbox"/> Other
		<input type="checkbox"/> Abnormal Cry	<input type="checkbox"/> Jittery
Date _____ Time _____	Date _____ Time _____		
Signature _____	Signature _____		



NEWBORN T.P.R

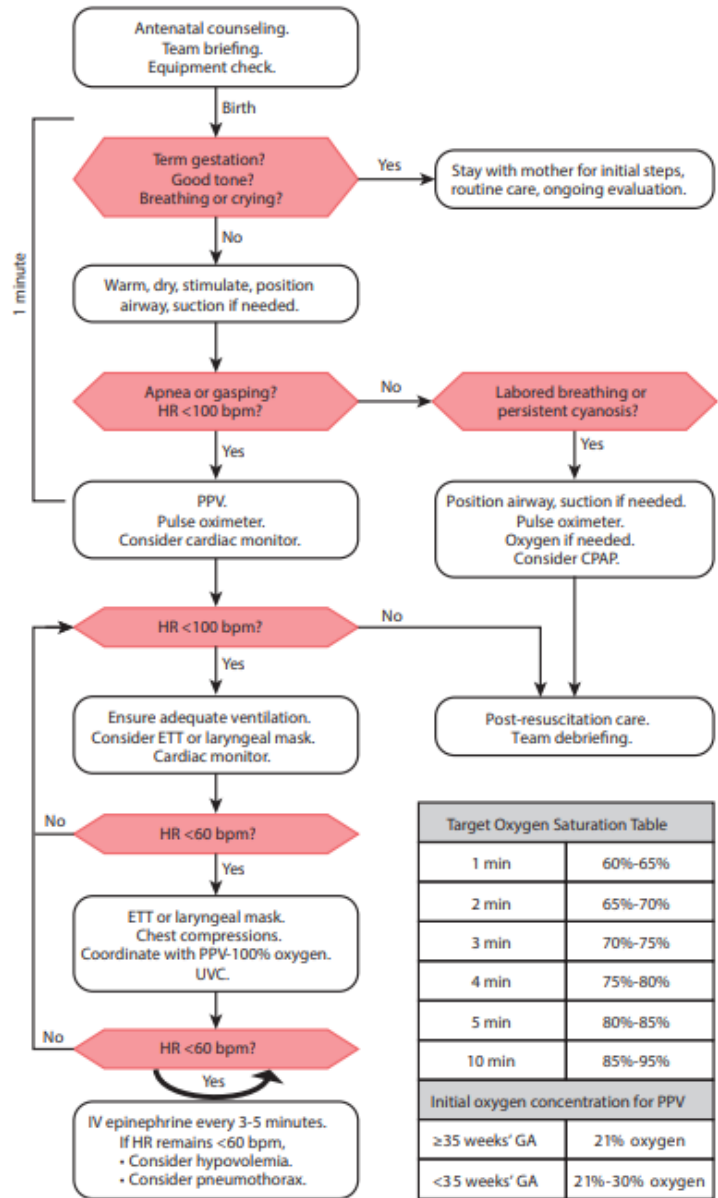


Date												
Newborn Day												
Hour												
TEMPERATURE	39											
	38											
	37											
	36											
	35											
	PULSE •	200										
		190										
		180										
		170										
		160										
150												
140												
130												
120												
110												
RESPIRATIONS X	100											
	90											
	80											
	70											
	60											
	50											
	40											
	30											
	20											

Appendix B

Flow Diagram for NRP

Neonatal Resuscitation Program® 8th Edition Algorithm



Equipment for Neonatal Resuscitation

<i>Item</i>	<i>Community Site</i>	<i>Regional Site</i>
Infant warmer		✓
Means to keep baby warm in lieu of skin-to-skin contact (e.g. gel warming mattress, cap, warm blankets/towels)	✓	
Oxygen supply	✓	✓
Appropriate size masks for term/preterm babies	✓	✓
Self-inflating neonatal resuscitation bag and tubing to connect to an oxygen source	✓	✓
O ₂ blender (or means to blend air with O ₂ ; e.g. Y-connector)	✓	✓
Manometer	✓	✓
Endotracheal tubes (sizes 2.5 to 4)	✓	✓
Tape and scissors	✓	✓
Laryngoscope (0 and 1 sized blades) with extra bulbs and batteries (*Requires specific training to achieve and maintain competency. Not to be used otherwise)	✓	✓
T-piece resuscitator (e.g. Neopuff™ Infant Resuscitator)		✓
CO ₂ detector	✓	✓
Laryngeal Mask Airway (LMA) size 1 (*Requires specific training to achieve and maintain competency. Not to be used otherwise.)	✓	✓
Bulb syringe	✓	✓
Regulated mechanical suction	✓	✓
Suction catheters (6F, 8F, 10F, 12F)	✓	✓
Suction tubing and canister	✓	✓
Feeding tube (8F catheter)	✓	✓
Syringe, catheter tipped, 20 mL	✓	✓
Meconium aspirator		✓
IV catheters (22 g)		✓
Tape and sterile dressing material	✓	✓

<i>Item</i>	<i>Community Site</i>	<i>Regional Site</i>
D10W	✓	✓
Isotonic saline solution	✓	✓
Syringes, assorted (1-20 mL)	✓	✓
Epinephrine (0.1 mg/mL)	✓	✓
Umbilical catheters (3.5F, 5F)		✓
Chest tube (10F catheter)		✓
20 g IV catheter with 3-way stopcock (in lieu of chest tube)	✓	✓
Sterile procedure trays (e.g., scalpels, hemostats, forceps)	✓	✓