Unanticipated Birth Outside the Birthing Unit

Guidelines for Labour Assessment, Imminent Birth, Immediate Newborn Care and Transfer



Revised: May 2025

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 (NS) occur in a hospital with an active obstetrical service. Occasionally, pregnant persons 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 to optimize healthy outcomes for both the parent and newborn. **Transfer should not be attempted if it is suspected that birth may occur on 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 (NRP) skills
- ✓ Postpartum/postnatal assessment and care
- ✓ Equipment
- ✓ Stock Medications for obstetrical emergencies and routine birth
- ✓ Laboratory tests

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 person'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 pregnant persons 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. Pregnant persons 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 pregnant person, and their partners and family.

The following skills are required:

- ✓ Assessing frequency, strength, and duration of contractions
- Helping pregnant persons in early labour with decision-making (e.g.to consider the potential need for travel or transfer to the most appropriate facility for labour and birth)
- ✓ Auscultating the fetal heart rate 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 pregnant persons 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)
 - o supporting skin to skin and the initiation of breastfeeding

Assessment of Well-Being

The pregnant person is the best source of information about their obstetrical and medical history and presenting concerns. Some pregnant persons, 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 **GA** of the newborn (determines the urgency of the transfer process, and the most appropriate referral centre for transfer)
- the presentation of the newborn (i.e. is the newborn coming out headfirst 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 newborn is born.

Key Questions to Assess Well-Being

Questions about the Pregnant Patients Current Status	Consideration
✓ Are you pregnant?	Confirm pregnancy and that viability has been achieved (> 20 weeks)
 ✓ When is your due date? OR ✓ How many weeks pregnant are you? OR ✓ When is your newborn 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 newborn?	 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? OR ✓ Do you have any medical conditions? 	Some pre-existing health conditions (e.g. diabetes, hypertension, obesity) may increase risk for adverse perinatal outcomes.
✓ Have there been any concerns with this pregnancy?	Conditions which have resulted in increased fetal or maternal surveillance (multiple gestations or breech presentation) should be discussed with a referral centre.

Questions about Fetal Status	Consideration		
 Have there been any concerns with the newborn's health during this pregnancy? 	The LifeFlight MCP will collaborate with the referring physician regarding decisions about transfer.		
 Has your baby been less active today? AND 	Further assessment is indicated to confirm fetal wellbeing (i.e. confirmation of a fetal heartbeat via auscultation or POC ultrasound)		
✓ When did you last feel your baby move?	If a compromised newborn is anticipated and birth is imminent, arrange neonatal transport immediately. If birth is not imminent, arrange transport.		
Questions About Labour	Consideration		
 ✓ Describe what you are feeling now. ✓ When did this start? 	Consider how the symptoms have changed over time and what made them decide to come to hospital.		
 Can you describe the pain? Frequency Duration Strength or intensity Constant or intermittent Location 	 Frequency = time from beginning of one contraction to beginning of next Duration = how long does the contraction last from beginning to end? Strength = How firm is the uterus with contractions? How does pain rate on a scale of 1 to 10? 		
✓ Do you have any pelvic or vaginal pressure?	Pelvic or vaginal pressure may indicate imminent birth or less urgent conditions. Further assessment is required (e.g. urge to push vs urinary frequency)		
 Has your water broken? If so, when? Is it clear in colour? Is there a foul odour? 	May be felt as a gush, trickle, or wetness Inspect leaking fluid for presence of blood or meconium (newborn's first stool: green, yellow, brown or black)		
✓ Is there any vaginal bleeding?✓ When did this start?	Note: amount, colour (bright vs dark), consistency		

Auscultation of Fetal Heart Rate

The fetal heart rate (FHR) is most easily heard through the fetal back, with the pregnant person in a semi-recumbent or lateral lying position. When unsure of the fetal position, you may consider asking the pregnant person on which side they most frequently feel their baby kicking. Assuming this to be the location of the fetal limbs, you would auscultate on the opposite side of the abdomen, midway between the umbilicus and symphysis publis. The FHR will be heard lower in the abdomen as the fetus moves down into the pelvis as labour progresses.



Listen to the FHR 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 person (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' 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 GA 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

- Birthing person exclaims, "The baby is coming!"
- Uncontrollable urge to push (they may express a need to defecate)
- Separation of the labia, bulging perineum and rectum
- Bloody show
- Uncontrollable passage of stool
- Difficulty maintaining calm, or expression of panic
- Sudden nausea and vomiting
- Crowning of the fetal presenting part (typically the head)

Planning for Care

The presence or absence of labour, other concerns for the birthing person 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 the pregnant person is in labor, transfer should take place as soon as possible if birth is not imminent. Every effort must be made to avoid birth during transport.

Guidelines for discharge home:

If the pregnant person 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 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 center or call LifeFlight to consult with the Medical Control Physician (MCP).
- Maintain continuous support and assessment.
- Consider safety of conditions for transfer (time before birth, weather).
- Ensure appropriate care providers are available to attend during transfer. If the pregnant person is to be transferred unattended, the transferring physician maintains responsibility until the pregnant person arrives at the intended destination and is taken into care.
- Reassess labour progress prior to transfer.
- If birth is imminent and the newborn is preterm (< 37 weeks) or if the newborn is anticipated to be compromised, 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 and 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 person.
- Provide a safe, comfortable, private environment with continuous support.

Labour/Birth Assessment: A Quick Reference



When Birth is Imminent

Birth is a natural process, and most of the time is uncomplicated, particularly when the pregnancy is at term (> 37 weeks). It is quite possible that most people 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 birth 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 birthing person, partner, and family. **Healthcare professionals should:**

- > Always remain with the labouring person.
- > Ensure help is available to prepare for birth.
- Provide support and care to the pregnant person, partner, and family.
- > Provide care for the newborn.

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 newborn'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)¹. The environment should be warm to minimize potential heat loss for the newborn. Additional ways to maintain normothermia include:

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

<u>Standard provincial documentation forms for labour and birth</u> will help prompt your care; samples of these are in Appendix C and can be requested from the <u>RCP office</u> or via <u>the RCP online order form</u>.

Assisting with Birth ² : Step by Step				
Call for Assistance				
	There are at least two persons requiring			
	assessment and care at each birth – the birthing person, and the newborn. Both 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 used and use gender-inclusive language. ✓ Minimize distraction and noise in the room 			
	 ✓ Provide privacy 			

Boulton, J. E., Coughlin, K., O'Flaherty, D., & Solimano, A. (2021). ACoRN, acute care of at-risk newborns: A resource and learning tool for health care professionals. The Canadian Pediatric Society (2nd ed.). Oxford University Press.
 Society of Obstetricians and Gynecologists of Canada (2024). ALARM Course manual. Advances in labour and risk management (31st ed. 2024-2025).

Labor & Pushing Techniques



- Support the birthing person into a position that is comfortable and allows visibility of the perineum.
- ✓ Encourage bearing down/pushing according to the patient's own preference (spontaneous with natural urges or directed with Valsalva Maneuver (i.e. holding breath and counting). Spontaneous pushing is recognized as best clinical practice. Spontaneous pushing follows natural urges, which is often 3-5 pushes per contraction.
- There may be times when directed pushing (i.e. holding breath and counting) is required. For example, in times of fetal distress and ineffective spontaneous pushing.
- Wash hands and wear gloves.
- ✓ Get equipment ready



Scan to view RCP's simulation of an uncomplicated vaginal birth

Birth of the Head



- ✓ If the amniotic membranes have not yet ruptured and are bulging through the vagina, consider breaking them with your fingers, or leave them intact. 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.
- Apply light pressure with the opposite hand on the back of the fetal head to maintain flexion.
- ✓ Delivery of the fetal head is advised at the end or between contractions by light panting and gentle, short pushes to prevent perineal trauma.
- ✓ Do not pull on the fetal head.

Check for the Cord



- ✓ Once the head is born the birthing person will feel some relief and often will naturally pause before continuing to push.
- ✓ Feel for the umbilical cord around the fetal neck.
- ✓ If you feel cord:
 - try to gently loosen the cord and bring it out over the fetal head.
 Sweep again in case it is looped twice and repeat this step if needed.
- ✓ If you cannot loosen the cord, DO NOT CUT
 THE CORD until after the fetal shoulders are delivered, and:
 - gently push the cord back over the fetal shoulder allowing the shoulder to slip under it as the fetus delivers.
 OR
 - keep the fetal head close to the perineum allowing the remainder of

	the body to deliver or "concreased
	the body to deliver or somersduit
	out". After birth remove the cord from
	the newborn's neck and body as
	required.
Restitution	F
	\checkmark Allow the fetal head to spontaneously turn
	(restitute) to face left or right.
	\checkmark Let the uterine contractions do the work of
	turning the fetus through the pelvis once the
	head is born.
	\checkmark As the fetus restitutes (i.e. turns to one side
	or the other), the shoulders are lining up to
	move through the pelvic bones.
	✓ If needed, a helper on each side can support
	both of the birthing person's legs to flex the
	hips while they bear down with the next
	contraction.
Support the Head and Guide the Bod	V
	✓ Place a hand on either side of the fetal head
	 Place a hand on either side of the fetal head for support.
6	 Place a hand on either side of the fetal head for support. The 'pushing power' comes from the birthing
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Lo)(.	 Place a hand on either side of the fetal head for support. The 'pushing power' comes from the birthing person and their uterine contractions, not from the birth attendant pulling
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Newborn's Born!	
	\checkmark Lift the newborn onto the birthing person's
	abdomen or chest where they can see and
	hold their newborn.
	\checkmark Keep the newborn warm by placing them
	'skin-to-skin' with the birthing person:
10900 4	- page 27 for newborn assessment
Contraction of the second seco	and care
	- page 31 for neonatal resuscitation
	\checkmark As you gently dry the newborn with warm
	towels/blankets, they should begin to cry
	vigorously.
	✓ Do not suction a vigorous newborn.
	✓ Secretions are often present in a newborn's
	mouth and nose, and the newborn can
	usually clear these independently (e.g.
	'spitting up' or sneezing) or these may be
	wiped away with a soft cloth.
	\checkmark Cover both the birthing person and the
	newborn with warm, dry blankets. Replace
	wet blankets with dry warm ones.
	\checkmark Give oxytocin 10 units IM to the birthing
	person.
	✓ Remember to record the time of birth!
Congratulations	

Congratulate all and praise the birthing person's efforts!

Clamping the Umbilical Cord and Collecting Cord Bloods

Preterm (<37 weeks) singletons: Deferred (delayed) umbilical cord clamping (DCC) is recommended for 60 to 120 seconds.

Term singletons: DCC is recommended for 60 seconds. DCC beyond 60 seconds increases the risk of hyperbilirubinemia requiring phototherapy.

- When cord clamping cannot be deferred as recommended, then DCC for at least 30 seconds is superior to immediate clamping³.
- Disrupted utero-placental circulation is a contraindication for DCC.
- ✓ <u>Clamping the Umbilical Cord:</u>

To clamp the umbilical cord, place 2 metal clamps on the umbilical cord and cut in between.



³ McDonald, S. D., Narvey, M., Ehman, W., Jain, V., Cassell, K., Obstetricians and Gynecologists of Canada, & Fetus and Newborn Committee. (2022, March 15). *Umbilical cord management in preterm and term infants*. Position Statement. <u>https://cps.ca/documents/position/umbilical-cord-management-in-preterm-and-term-infants</u>

- ✓ 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). With the umbilical cord still clamped, first draw an arterial and then a venous cord gas specimen into two 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 analysis within 60 minutes.
- ✓ <u>Cord Blood</u>: From the cord that is still attached to the placenta, release the clamp slowly to allow the flow of approximately 10 mL of cord blood into a medicine cup or a lavender topped EDTA collection tube. Ensure the clamp is closed securely around the umbilical cord.
- ✓ Remember to label the blood collection tube accordingly.
- ✓ <u>Placing an Umbilical Cord Clamp</u>: After the cord has been cut, the metal clamp that is attached to the newborn can be replaced with a plastic umbilical cord clamp. Leave 3-5cm length of cord between newborn and the plastic cord clamp. Ensure that the plastic clamp is tightly secured before removing the metal clamp.

Waiting for the Placenta





- ✓ Ideally, one member of the care team is observing and caring for the newborn during skin-to-skin time, while another care provider assesses the birthing person's vaginal bleeding while awaiting placental delivery. The placenta should come within 20-30 minutes.
- ✓ It is normal to see a <u>small</u> trickle of bright blood from the vagina after the newborn is born but before the placenta is delivered.
- ✓ You may see small tears in the skin or vaginal tissue; not all will need repair.
- DO NOT massage the fundus (top of the uterus) or apply pressure to 'assist' the delivery of the placenta.
- ✓ Signs of placental separation include:
 - ✓ Lengthening cord
 - ✓ Gush of blood
 - ✓ Rising of the uterus in the abdomen
 - ✓ Uterus becoming firmer.
 - ✓ Feeling of cramping
 - ✓ Feeling vaginal/rectal pressure
- ✓ AFTER signs of placental separation gentle traction can be applied to the cord with the other hand supporting the uterus just above the pubic bone.
- ✓ Gentle traction using ring forceps, or maternal coughing can be used to

ensure all amniotic membranes are
delivered.
✓ Massage the fundus immediately after
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 hemorrhage.

Assessment and Care of Birthing Person Following Birth

At a minimum, check vital signs, including pain, bleeding, fundal height and tone, bladder fullness, and perineum, for all postpartum person's:

- every 20 minutes for the first hour after birth,
- every hour for the next four hours, and then (if not transferred),
- every 12 hours until discharge.

Checks may be more frequent if indicated.

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 postpartum person's buttocks/back and weigh sanitary pads to fully appreciate the degree of blood loss.
- If the birthing person has any known risk factors for postpartum hemorrhage (e.g., previous history, precipitous birth, etc.) consider initiating a large bore IV (18 gauge) as soon as possible, ideally prior to the

birth. After the delivery of the placenta, consider starting a prophylactic oxytocin infusion by adding 20-40 units of oxytocin to 1000mL of 0.9 NaCl or Ringers lactate and infuse at a rate of 150mL/hr.



RCP Simulated Photo

- If the bleeding is excessive, treatment of postpartum hemorrhage is required. Massage the uterine fundus and start an oxytocin infusion; add 20-40 units of oxytocin to 1000mL of 0.9% NaCl or Ringers Lactate and infuse rapidly via IV infusion pump for 4+ minutes until a firm uterine tone is achieved⁴. The IV infusion rate should then be adjusted as outlined in the medication table for treatment of postpartum hemorrhage.
- If a continuous infusion or bolus of oxytocin IV and fundal massage do not control vaginal bleeding, start a second IV of NaCl (infuse wide open) and consider giving an alternate uterotonic and antifibrinolytic such as:
 - Ergonovine maleate (Ergot)
 - Carboprost tromethamine (Hemabate)
 - Misoprostol (Cytotec)
 - Tranexamic acid (TXA) (Cyklokapron)

See Medication Table (pages 38-41) for recommended dosages and routes.

Consult with a physician at your referral centre for advice with management of excessive bleeding.

4 Robinson, D., Basso, M., Chan, C., Duckitt, K., & Lett, R. (2022). Guideline no. 431: Postpartum hemorrhage and hemorrhagic shock. Journal of Obstetrics and Gynaecology Canada, 44(12). https://doi.org/10.1016/j.jogc.2022.10.002

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



- If the fundus is higher than at the level of the umbilicus and/or is not midline, prompt intervention is required. This can be caused by a full bladder or clots forming in the uterus, both of which are common causes of postpartum hemorrhage.
- Ensure visualization of the perineum during fundal assessment. The amount and color of the blood (bright red, dark red) is important to assess.

Bladder

- The bladder should not be palpable.
- A distended bladder can interfere with uterine contractility leading to uterine atony and increased postpartum bleeding.
- If the bladder is distended encourage the postpartum person to void. If they are unable to void on their own, it is appropriate to recommend catheterization 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.

Assessment and Care of Newborn

First Impressions

- After birth the newborn should be placed directly on the birthing person's abdomen or chest for skin-to-skin care.
- Rapidly evaluate the newborn:
 - $\circ~$ Is the newborn term?
 - Does the newborn have good muscle tone?
 - Is the newborn breathing and/or crying?
- If the answer is "No" to any of these questions the newborn should have the cord clamped and cut and be brought to a radiant warmer (if available) or a surface that resuscitation could be initiated. The 5 initial steps of newborn care should be completed immediately once placed on the resuscitation surface available.
- Otherwise, the newborn can remain skin-to-skin for the initial steps newborn care:
 - Provide warmth
 - Dry and stimulate
 - o Position the head and neck to promote optimal airway position
 - Remove secretions from the airway needed (wipe mouth with dry towel or blanket)
- Healthy term newborns seldom require more than a clear airway and adequate warmth.
- Routine suctioning is not recommended. If the newborn 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.

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

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

Newborn Assessment for Apgar Scoring:

Heart Rate (HR): absent/not detected \rightarrow less than 100 bpm \rightarrow greater than 100 bpm.

- Auscultate HR or feel pulse at base of cord.
- SPO2 monitor could applied on the **right** hand or wrist for assistance in assessing HR.
- ECG (if you have access) may be helpful to identify HR, especially if it is low or difficult to palpate.

Respiratory Effort: none \rightarrow slow/irregular \rightarrow vigorous crying

• Stimulate if respirations are absent or gasping.

Muscle Tone: limp \rightarrow some flexion of limbs \rightarrow active motion

Reflex Irritability: no response \rightarrow facial grimace \rightarrow coughing or sneezing

Colour: blue to pink

- The newborns central areas lips, tongue and trunk- should turn pink shortly after birth, while hands and feet may remain pale or bluish for up to 24 hours. Be prepared to differentiate cyanosis from bruising.
- If the newborn is breathing but appears blue, be prepared to provide supplemental oxygen based on targeted preductal SpO₂saturation levels. Avoid over- or under- oxygenation, as both can be harmful.
- Place an SpO₂ monitor on the newborn's right hand or wrist. If their SpO₂ is low and not improving, deliver just enough supplemental oxygen to reach the target for their age. This can be done by using your hand as a mask over the newborn's nose and mouth, holding the oxygen tubing between your fingers.

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 31 for an overview of Neonatal Resuscitation, or Appendix A 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 person's screening results will be known, and so erythromycin eye ointment is recommended⁵.

Vitamin K Img IM (thigh) is recommended to administered to all newborns within the first 6 hours after birth. A dose of 0.5mg is appropriate for newborns weighing less than 1500g⁶. Skin-to-skin contact or breast(chest) feeding during administration is known to reduce the newborns pain experience.

Keeping the Newborn Warm

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

Means to promote newborn normothermia (all babies):

- **Direct skin to skin** care 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 newborn's temperature (per axilla) every 30 minutes for the first two hours.
- Keep newborn away from sources of drafts (e.g. vents).

⁵ Moore, D. L., MacDonald, N. E., Canadian Pediatric Society, & Infectious Diseases and Immunization Committee (2024). *Preventing Ophthalmia Neonatorum*. Canadian Paediatric Society. <u>https://cps.ca/documents/position/ophthalmia-neonatorum</u>

⁶ Ng, E., & Loewy, A. D., & Fetus and Newborn Committee (2024). *Guidelines for vitamin K prophylaxis in newborns*. Canadian Paediatric Society. <u>https://cps.ca/documents/position/vitamin-k-prophylaxis-in-newborns</u>

- Do not place newborn 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.

Smaller or preterm newborns 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 may be used to prevent heat loss through evaporation if the newborn is less than 32 weeks gestational age (GA).
- Portable gel warming mattress.

Do not use outdated radiant warmers due to the risk of injury from improper or faulty operation. Alternatively, use gel warming mattresses, wrapped in a blanket or towel, to safely manage temperature regulation in at-risk newborns. Never microwave IV bags for newborn warming.

Neonatal Resuscitation – An overview

Rapid Evaluation

- ✓ Term gestation?
- ✓ Breathing or crying? If 'yes' to all, newborn may remain skin to skin
- ✓ Good tone?

If 'no' to any of these questions the cord must be clamped and cut, and the newborn must be moved to a safe place to begin neonatal resuscitation. Newborns require a different approach to resuscitation than adults. When a newborn requires resuscitation, it is usually caused by ineffective respirations, leading to respiratory acidosis due to inadequate gas exchange.

The focus of neonatal resuscitation is effective ventilation!

Effective PPV =

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

A - Airway (30 seconds)

- Provide warmth.
- Dry with towel or blanket (discard/replace when wet), and stimulate (gently rub the newborn's back, truck, or extremities)
- Position the head and neck to open the airway (neutral or slightly extended position)
- Clear secretions if needed (e.g. use a blanket or towel to gently wipe inside the newborns mouth. If suction is required, use a bulb suction, suction mouth FIRST, then each of the nares)

B - Breathing (30 seconds)

- Evaluate respirations and heart rate.
- If apneic, gasping, or HR < 100 bpm:
 - start PPV at a rate of 40-60 bpm via bag and mask or neo puff (site dependent)
 - $\circ\;$ the goal is to start PPV before 1 minutes of life.
 - at an FiO₂ of 21% (room air) if the newborn is term.
 - at an FiO₂ of 30%, if the newborn is preterm (less than 37 weeks).
 - place an SpO₂monitor on the newborn's right hand or wrist. Adjust
 FiO₂ to reach the target SpO₂ for their minutes of age.

- reassess HR after 15 seconds of PPV
- if there is no increase in HR and there is no chest rise with PPV begin corrective steps (MR. SOPA):

M: Mask adjustment

- **R:** Reposition head and neck
 - Give 5 breathes, if not chest movement
- S: Suction mouth then nose

Open mouth

- Give 5 breathes, if not chest movement
- P: Pressure increase
 - 5-10 cm increments to a max of 40cm for term and 30 cm for preterm
 - Give 5 breathes, if not chest movement

A: Alternate Airway

- LMA
- ETT (if trained to do so)
- Increasing HR is the number one indicator of effective ventilation.
- If the HR begins to rise and is >60 bpm but <100 bpm continue with PPV until the newborn begins to effectively breathe on their own.
- If the newborns HR is < 60 bpm after **30 seconds of effective PPV**, start chest compressions and provide 100% oxygen.

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 (ratio is 3 compressions: 1 breath).
- Continue to assess pre-ductal oxygenation status via the SpO₂ monitor on the newborn's right hand or wrist.
- Titrate oxygen to achieve target SpO₂levels.

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)			

 Discontinue chest compressions when HR > 60 bpm; discontinue PPV and transition to free-flow oxygen when HR > 100 bpm and newborn is breathing spontaneously.

Additional resuscitative measures are described in the NRP algorithm (Appendix A). Consult the MRP for neonates through EHS LifeFlight 1-800-743-1334

Transfer

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

Consult with an obstetrician at your regional centre or directly through LifeFlight regarding management and/or transfer. If the newborn 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 newborn.

If it is necessary to transfer the newborn after birth, parents will need information about transfer, 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 should provide information about alternate accommodations for parents.

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

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

Tertiary Centres:

Halifax: IWK Health, Birth Unit	902-470-6670
Sydney: Cape Breton Regional Health Care Complex Labour and Delivery Unit	902-567-7834
<u>Regional Centres:</u>	
Amherst: Cumberland Regional Health Care Centre	902-667-5400 Ext.6144
Antigonish: St. Martha's Regional Hospital Children's and Women's Health Unit	902-867-4200
Bridgewater: South Shore Regional Hospital	902-527-5214
Kentville: Valley Regional Hospital	902-678-7381 Ext. 3050
New Glasgow: Aberdeen Hospital	902-752-7600 Ext. 2530
Truro: Colchester East Hants Health Centre	902-898-2918
Yarmouth: Yarmouth Regional Hospital	902-742-3541 Ext. 130

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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 birth.
- A copy of standard provincial documentation for labour and birth will help prompt your assessments (see appendix B).

Ste	rile emergency delivery tray contents:
1	4 clamps (it is useful to have at least one pair of Kochers or an Allis
v	clamp to rupture membranes if needed)
✓	1 pair curved scissors
\checkmark	l pair suture scissors
~	Blood Bank collection tube and stopper to indicate clotted
•	specimen
\checkmark	1 umbilical cord clamp
~	1 small bowl
✓	1 towel
\checkmark	1 drape
\checkmark	l large pad suitable to place under the birthing person's buttocks
~	Sponges
\checkmark	Gloves
* I	Disposable emergency delivery trays are available. These are often
n	nore practical in a community hospital that does not provide obstetric
S	ervices.

You will also need:

- Several warm flannel blankets/towels to dry the newborn. The newborn should be placed skin-to-skin with the birthing parent (abdomen or chest), and both covered with clean, dry, warm linens. The newborn should always be dried immediately; this can be done while skin-to-skin. Alternatively, the newborn can be held skin-to-skin with the partner or other support people. If skin to skin is not possible you may also bundle the newborn 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. Plastic bags for placenta (2)
- 7. Identification bracelets: 1 for birthing parent, 1 for newborn
- 8. Folder with RCP chart form package & necessary hospital laboratory requisitions

9. Newborn resuscitation equipment (Appendix A) and a neonatal resuscitation record (Appendix D)

Med	lications for V	aginal Birth and Obs [.]	tetrical Emergen	cies: Recommended fo	r Stock in t	he ED
		Р	revention of PPH	,8		
Drug Name / Level of Care	Agent/Class	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects
Oxytocin (All hospitals)	UTEROTONIC AGENT CLASS: OXYTOCICS	Active Third Stage Management: Prevention: of PPH is always Oxytocin	Hypersensitivity to Oxytocin	 10 IU IM, OR 3 IU IV with the delivery of the anterior shoulder or immediately after the newborn is delivered, OR 20-40IU in 1000mL of Ringer's Lactate or NaCl at 150 mL/hr. *Individuals at high risk of PPH may receive both an initial bolus of dose of 10IU IM or 3IU IV after the newborn is delivered AND a prophylactic infusion after delivery of the placenta. 	Room temperature	-Hypotension -Tachycardia -Water intoxication -ECG changes have been observed following the administration of concentrated solutions.
Tranexamic Acid (TXA) (Cyklokapron) (All hospitals)	ANTIFIBRINOLYTIC	Prevention of PPH in VERY HIGH-RISK births.	Hypersensitivity to TXA or any component of the formulation. Injection: active intravascular clotting subarachnoid hemorrhage	 1 g IV over 30 - 60 seconds. Within 10 min after birth. May repeat x 1 in 30 min. *Provincial drug manuals guide care providers to administer TXA IV over 10 min. 	Room temperature	-N&V -Diarrhea -Dizziness -Hypotension -Visual color disturbances -Thrombo- Embolic event

⁷ IWK Drug Information Resource. (n.d.). <u>https://www.dir.iwk.nshealth.ca/</u> 8 LibGuides at Nova Scotia Health. (n.d.). <u>https://library.nshealth.ca/Nurses/PharmacyResources</u>

Med	Medications for Vaginal Birth and Obstetrical Emergencies: Recommended for Stock in the ED											
			Treatment of PPH	ł								
Drug Name / Level of Care	Agent/Class	Indications	Contraindications	Dosc	ıge	Storage	Potential Adverse Effects					
Oxytocin (All hospitals)	UTEROTONIC AGENT CLASS: OXYTOCICS	Treatment of PPH *if required after placental delivery for uterine atony.	Hypersensitivity to Oxytocin	 Add 20 mL of R or NaC Rap ove Then ru infusion IU of Oxytocin per Liter of IV Fluid 20 30 40	-40 IU to 1000 inger's Lactate I. id infusion r 4 min un at a MAX n of 15IU/hr. Infusion rate to delivery 15 IU/hr. 750 500 375	Room temperature	-Hypotension -Tachycardia -Water intoxication -ECG changes have been observed following the administration of concentrated solutions.					
Carboprost (Hemabate) (Regional & Tertiary hospitals)	UTEROTONIC AGENT CLASS: PROSTAGLANDIN	Treatment of PPH *if required after placental delivery for uterine atony.	-Cardiovascular, pulmonary, renal or hepatic disease -Known hypersensitivity to the preparation.	 250 mcg IM or IMM (intra-myometrial) *May repeat every 15 min, maximum 8 doses (2 grams) 		Refrigerate at 2 to 8° C	-N&V -Diarrhea -Hypertension -Pyrexia -Headache -Flushing -Diaphoresis -Restlessness					
Ergonovine maleate (Ergometrine) (All hospitals)	UTERONTONIC AGENT CLASS: ERGOT ALKALOID	Treatment of PPH *if required after placental delivery for uterine atony.	Should not be used with any of the HDP: -Chronic HTN -Gestational HTN -Preeclampsia -Eclampsia	 0.25 mg May re hours *(slow IV injection saving circumstication saving circumsti circumstication saving circumstication s	g IM peat every 2 on ONLY in life- cances)	Refrigerate at 2 to 8° C; Stable 60 days without refrigeration	-Peripheral vasospasm -Hypertension -Nausea -Vomiting					

Med	ications for V	aginal Birth ai	nd Obstetrical Eme	ergencies: Recommended f	or Stock in	the ED
			Treatment	of PPH		
Drug Name / Level of Care	Agent/Class	Indications	Contraindications	Dosage	Storage	Potential Adverse Effects
Misoprostol (Cytotec) (All hospitals)	UTEROTONIC AGENT CLASS: PROSTAGLANDIN	Treatment of PPH *if required after placental delivery for uterine atony.	Use caution with history of cardiovascular disease	• 400 mcg sublingual or oral *There is no evidence for a second misoprostol dose	Room temperature	-Nausea -Vomiting -Diarrhea -Shivering -Pyrexia
Tranexamic Acid (TXA) (Cyklokapron) (All hospitals)	ANTIFIBRINOLYTIC	Treatment of PPH *if required after placental delivery with increased fibrinolysis (>500 mL blood loss after vaginal birth, or blood loss causing hemodynamic instability).	Hypersensitivity to TXA or any component of the formulation. Injection: active intravascular clotting;	 1 g 1 g IV over 30 - 60 seconds. Initiated as soon as possible after the diagnosis of PPH. May repeat x 1 in 30 min If IV access is not established, IM TXA may be reasonable. No benefit when given >3 hours from onset of PPH *Provincial drug manuals guide care providers to administer TXA IV over 10 min. 	Room temperature	-Nausea -Vomiting -Diarrhea -Dizziness -Hypotension -Visual color disturbances -Thrombo- Embolic event
Fibrinogen (All hospitals)	CLASS: BLOOD COAGULATION FACTOR	Treat or prevent severe PPH due to hypo- fibrinogenemia	-Active thromboembolism	• START with 4 g IV (60mg/kg)	Refrigerate at 2 to 8° C; follow blood bank policy	-Allergic reaction -Fever/Chills -Headache

Laboratory Tests

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

Cord Blood (collect if possible):

- ABO, Rh type and DAT (Direct Antiglobulin Test)
 - Following birth, collect at least 1 mL into a 10 mL lavender topped EDTA tube.
- Carefully label and refrigerate.
- Forward to Laboratory with the appropriate requisition as soon as possible.

PRN Bloodwork:

- Consider obtaining CBC, ABO/Rh and type and crossmatch if any identified risk factors for postpartum haemorrhage exist.
- Consider Rubella or Varicella Titre if immunization status unknown or unsure.

Rh Negative or Rh Unknown:***

- Collect the following within 12 hours of birth:
 - ABO, Rh type & Antibody screen into a lavender topped EDTA tube.
 - Kleihauer-Betke into a lavender topped EDTA tube (Central Zone prefers a purple top EDA tube)
- Complete appropriate requisition.

*Note: If specimen is from a non NSH *Central Zone Hospital*; Do not accession and send directly to the IWK Haematology Lab.

⁹ *Rh program of Nova Scotia*. Rh Program of Nova Scotia | Reproductive Care Program of Nova Scotia. <u>https://rcp.nshealth.ca/rh</u>

¹⁰ Fung-Kee-Fung, K., Wong, K., Walsh, J., Hamel, C., & Clarke, G. (2024). Guideline no. 448: Prevention of rh D alloimmunization. Journal of Obstetrics and Gynaecology Canada, 46(4), 102449. https://doi.org/10.1016/j.jogc.2024.102449

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 birth in an emergency or outpatient department can be overwhelming. Even for experienced caregivers who routinely attend births 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 <u>time of birth</u> 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. <u>RCP provides standard documentation forms for NS hospitals to support the</u> <u>documentation of perinatal care.</u> Images of these forms are in Appendix C. Forms can be requested from the <u>RCP office</u> or via <u>the RCP online order form</u>.

- 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

Appendix A

Flow Diagram for NRP"



11 Textbook of Neonatal Resuscitation, 8th Ed. By American Academy of Pediatrics and American Heart Association. Edited by Gary M. Weiner and Jeanette Zaichkin (2021)

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Equipment for Neonatal Resuscitation

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

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

Canadian Pediatric Society's Neonatal Resuscitation Record¹²

Neol Documer	. OG nt every 1-2	minut	es (if p	ossibl	e)								American	Academy of Pe Adapted with p	diatrics American termission from Jane	Heart Association Germano, D0, FAAP
Name:						GA:			Date/t	ime of birth:			Date/Time:			Wt/EFW:
Maternal ri	sk factors/event	s leadin	g to resu	IS:												
Location:	Delivery Rm			U 🗆	Nursery	□ Oth	er				1	hermoregulation (if preterm):	Plastic wrap	Thermal mattres	s Room temp:
Preheat	warmer Che	ck PPV	device v	ith mas	k 🗆 P	rep puls	e oximet	ter I	Check	laryngoscope	Prep	ETT Access EC	G leads D Prep	UVC Prep	epinephrine	Prep volume
				MR. SO	IPA M	R: Mask	adjustr	nent 8	Reposi	tion airway SC	D: Suction	n & Open mouth	P: Pressure incr	ease A: Alterr	native airway	
Time	Breathing oN Sajstee	HR Auscultated	HR on Monitor	0 ₂ Saturation	02 Concentration	CPAP Pressure	PIP/PEEP	Chest Movement	CO2 Detector Color	Airway	Compressions 02 increase to 100%	Access	Preferred IV Epi 0.1mg/mL (0.1 - 0.3mL/kg)	ET Epi 0.1 mg/mL (0.5 - 1mL/kg)	Volume 10mL/kg	Notes (color, tone, ETT size and insertion depth, OG tube, total volume infused, transillumination, etc.)
													mL	mL	DNS DPRBC	
										OLM DETT			mL	mL	INS IPRBC	
										OLM DETT			mL	mL	DNS DPRBC	
													mL	mL	DNS DPRBC	
										OLM DETT			mL	mL	D NS D PRBC	
										OLM DETT			mL	mL	DNS DPRBC	
										OLM OETT			mL	mL	DNS DPRBC	
										OLM DETT			mL	mL	D NS D PRBC	
										OLM DETT			mL	mL	INS IPRBC	
													mL	mL	DNS DPRBC	
													mL	mL	DNS DPRBC	
													mL	mL	D NS D PRBC	
Outcome:	Admission Tem	peratur	e:		Stabilize	d/remai	ned on u	unit	Trans	ferred to:		Time:				
Expired	Time:	Noti	fication:	🗆 Far	nily Tir	ne:			OB prov Baby's p	ider: hysician:		Tir Tir	ne:			
Team Lead	er:															
Scribe (prin	t name):					So	ribe: (sid	on nai	ne):				Date	/Time:		

Key: EFW = estimated fetal weight. Epi = epinephrine ETT = endotracheal tube GA = gestational age IO = intraosseous IV = peripheral IV LM = laryngeal mask IVS = Normal Saline PIPPEEP = positive inspiratory pressure/positive end expiratory pressure PRBC = packed red blood cells U = umbilical venous catheter

Page 1 of _____ (more recording space on next page)

NEV. 3720

Name:																
				MR. SO	PA M	R: Mask	adjustr	nent 8	i Reposi	tion airway SC	: Suction	a & Open mouth	P: Pressure incr	ease A: Alterr	native airway	
Time	Breathing ON Sisted	HR Auscultated	HR on Monitor	O ₂ Saturation	02 Concentration	CPAP Pressure	PIP/PEEP	Chest Movement	CO2 Detector Color	Airway	Compressions 02 increase to 100%	Access	Preferred IV Epi 0.1mg/mL (0.1 - 0.3mL/kg)	ET Epi 0.1 mg/mL (0.5 - 1mL/kg)	Volume 10mL/kg	Notes (color, tone, ETT size and insertion depth, OG tube, total volume infused, transillumination, etc.)
													mL	mL	INS IPRBC	
										D LM D ETT			mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
													mL	mL	DNS DPRBC	
										D LM D ETT			mL	mL	INS IPRBC	
										DLM DETT			mL	mL	INS IPRBC	
													mL	mL	DNS DPRBC	
										OLM DETT			mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
										DLM DETT			mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
										D LM D ETT			mL	mL	INS IPRBC	
													mL	mL	INS IPRBC	
													mL	mL	NS PRBC	
										D LM D ETT			mL	mL	INS IPRBC	
										OLM OETT			mL	mL	INS IPRBC	
										OLM DETT			mL	mL	INS IPRBC	
										OLM DETT			mL	mL	INS IPRBC	
Scribe (prin	t name):															
Scribe: (sig	n name):							Date	Time:							

NeoLog Continued Document every 1-2 minutes (if possible)

Key: EFW = estimated fetal weight. Epi = epinephrine ETT = endotracheal tube GA = gestational age IO = intraosseous IV = peripheral V. LM = laryngeal mask. NS = Normal Saline PIPIPEEP = positive inspiratory pressure/positive end expiratory pressure PRBC = packed red blood cells. U = umbilical venous catheter

page _____ of _____

¹² Neonatal critical event log. (2020) <u>https://cps.ca/uploads/nrp/NRP_8th_ed_ITK_NeoLog.pdf</u>

Appendix B:

Infographics for Birth, Postpartum and the Newborn





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Appendix C

Samples of Standard Documentation for Labour and Birth

Images of the RCP chart forms are listed in order of their chart form number:

- 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





PREADMISSION MATERNITY ASSESSMENT To be used only for labour assessment prior to or upon admission to labour/delivery area, provided the prenatal record is present on

late (YYYY/MON/DD):	Time (H	H:MM):		
Gravida (G): Term	T): Preterm (P):	Abortus (A):	Living children (L):	Stillbirth (S):
Best estimate of gestational	age: weeks If unce	rtain, describe:		4
SUMMARY OF SIGNIFIC	CANT PROBLEMS in current	pregnancy and past his	story:	
			\sim	
				*
LABOUR ASSESSMEN	r			
Estimate of when regular co	ntractions became established	Date (YYYY/MON/DD		Time (HH:MM):
Membranes ruptured: D Ye	s 🗆 No 🕞 Questionable	Date (YYYY/MON/DD		Time (HH:MM):
Meconium present: 🛛 🛛 Ye	s 🗆 No			
	лт			
Blood pressure:	Cardiopulmonany status		nal Describe:	
Sudd heiste:	Carciopuinonary status:		nar Describe:	
Fundal height:	cm Presentation:	Engagement:	lYes ∐No	
Estimated fetal weight:	Grams 🛄 Libs. Fe	al heart rate (FHR):		
PELVIC EXAM	0	1	2	3
Dilatation	~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.	
RISHOP SCORE:)			
BISHOF SCORE.				
ADDITIONAL HISTORY	OR CLINICAL EVALUATIO	N:		
SIGNATURE/STATUS/PRI	NT NAME:			

of Nova Scotia		-			
SIJCP MA	IERNAL ASSESSMEN	I 			
Date	_ Time	_			
Reason for assessment		_			
Gravida (G) Term (T) _	Preterm(P)	_			
Abortus (A) Living Chil	dren (L) Stillbirth (S)				
Blood Group/Rh	28 wk Pho(D) inj. received DNo DY				
Support Person(s)		_ Current Mo	diantiana		
Primary Care Provider		- Rubella		Non-immuno	
IMP		Varicella		Non-immune	
EDD		HIV	Negative	Positive	Unknown
Gestation weeks	_ 07 G CAN OF CODO CO Wee	Hepatatis B	□ Negative	Positive	Unknown
Weeks		GC/Chlamy	dia Screening		
Current Health and Histor	y	Date (most re	cent screen)		
		Chlamydia	□ Negative	Positive	
Immunizations Received i	n Pregnancy	GBS Status	□ Negative	Positive	Unknown
(e.g.; Influenza, TDap, Hepatitis	s B and COVID-19)	Maternal Vi	tals TBR	1 1	RP
		Pre-Preg Wit		нт [/] —— / ——	BMI
Previous Pregnancy/Deliv	ery	Current MA	2.	Weight Gain	
		Lab Test	\mathcal{O}	weight dahi	
				1/4	
Medical History		Contractions	po Lines LIN started	w/h	
		Englighter #	5141180		in 10 minutes
Substance Use		Raipated	Mild D Moder	ate Strong	in to minutes.
Smoking F					
Alcohol E		Cervix	cm	station % of	f. position
Cannabia E		Examined by		/ 0 01	- position
Other E	No El Vos Deseriba	Membranes			
Initimate Partner Violence			Suspected F	Yes Date/time	
Revelopsocial Concerns		Colour and w	olume of fluid	· · · · · · · · · · · · · · · · · · ·	
Describe				done	
I shour and Birth Disp					
Key Pointe	Li written Li verbai	Fetal Prese	entation	_ Position	_ FH cm
Ney Points		- FM CActive	Decreased		
Dain Dalial Chairson		FHR	_bpm DIA	EFM Indication	
Pain Relief Choices	,	Classification	Normal A	typical CAbnorma	al
Pain Relief Choices		Interpretation			
Pain Relief Choices		NST (if indica	ited) 🗆 Normal	Atypical Abn	ormal
Pain Relief Choices Non-Pharmacological Pharmacological Prenatal Education Classes Other		Plan of Caro			
Pain Relief Choices On-Pharmacological Pharmacological Prenatal Education Classes Other Infant Feeding Choices		l'iait di Cale.		3	
Pain Relief Choices Non-Pharmacological Pharmacological Pharmacological Classes © Other Infant Feeding Choices Breast © Antenatal Colostru	m collection Other	BPP Score	U/S		
Pain Relief Choices Non-Pharmacological Pharmacological Prenatal Education Classes Other Infant Feeding Choices Breast Antenatal Colostrur Previous BF experiences N	m collection 🗆 Other	BPP Score Notes	U/S		
Pain Relief Choices □Non-Pharmacological □Pharmacological □Pharmacological □Classes □Other □Classes □Other □Infant Feeding Choices □Breast □Antenatal Colostru Previous BF experiences □N Describe	m collection Other	BPP Score Notes	U/s		
Pain Relief Choices Non-Pharmacological Pharmacological Classes Other Iclasses Other Breast Other Breast Other Previous BF experiences N Describe Plan of Care	m collection 🗆 Other lo 🖻 Yes	BPP Score Notes	U/S	For Induction	
Pain Relief Choices Dhor-Pharmacological Pharmacological Pharmacological Classes Other Infant Feeding Choices Breast Other Infant Feeding Choices Describe Piervious BF experiences IN Describe Plan of Care Attending Care Provider	m collection 🗆 Other lo 🖻 Yes	Notes	U/S	For Induction	
Pain Relief Choices Non-Pharmacological Pharmacological Prenatal Education Classes □ Other Infant Feeding Choices Breast □ Antenatal Colostru Previous BF experiences □ N Describe Plan of Care Attending Care Provider Attending Care Provider Admitted to room #	m collection 🗆 Other lo 💷 Yes	Notes	U/S	For Induction	
Pain Relief Choices Non-Pharmacological Pharmacological Prenatal Education Clases □ Other Infant Feeding Choices Breast □ Antenatal Colostru Previous BF experiences □ N Describe Plan of Care Attending Care Provider Admitted to room #	m collection 🗆 Other lo 💷 Yes Reason Date	Notes	U/S	For Induction	
Pain Relief Choices □Non-Pharmacological Pharmacological □Pharmacological □Pharmacological □Pharmacological □Ctases □Other □Infant Feeding Choices □Breast □Antenatal Colostru Previous BF experiences □N Describe □ Plan of Care Attending Care Provider □Admitted to room # □ Transferred to □	m collection	notified @	U/S	For Induction Indication Booked C/S Indication	
Pain Relief Choices Non-Pharmacological Pharmacological Classes □ Other Infant Feeding Choices Breast □ Antenatal Colostru Previous BF experiences □ N Describe Plan of Care Attending Care Provider □ Andmitted to room # □ Transferred to □ Discharged home	m collection	notified @ Time	U/S	For Induction Indication Booked C/S Indication Date	

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Preterm(P)	SRM Date Suspected Time ARM Duration ARM Duration Meconium No Yes Time first noted Meteors Series S	 Medica	tions (t					
Living Children (L)	Suspected Time ARM Duration ARM Duration Meconium No Yes Time first noted Matemat fear > 38' in labour.		tions /t					
Stillbirth (S) Gest wks EDD Gest wks GBS Status III Neg. III Pos. III Unknown Preg/Med complications	ARM Duration Meconium DNo Yes Time first noted Matemal fease: > 38° in labour.	Medica	tione (t					
EDD Gest wks GBS Status II Neg. II Pos. II Unknown Preg/Med complications	Meconium No Yes Time first noted	Medica	tione (t					
GBS Status DNeg. DPos. Unknown Preg/Med complications	Time first noted	Tin	uons (i	o mother wit	hin 24 h	ours be	fore bir	th)
Preg/Med complications	Maternal fever > 38' in Jabour		ne	Drug	[Dose	Ro	ute
Initiation (December of Lations)								
initiation/Progress of Labour	Induction Method							
Spontaneous onset	Cervical Ripening Type	_						
Oxytocin augmentation	DARM							
Induction Reason	Oxytocin Mechanical (catheter)	Baby						10
1st Stage Established Date	Time				2	1 Min	5 Min	10 Mi
The Stage Established Date	IIIIe	Heart	Absent	Below 100	Above		0 1111	10 1111
2 nd Stage Onset Date	Time	Rate	Absend	Class	100			
Birth Date Time	Position at birth	Effort	Absent	irregular	crying			
	0	Muscle	Linpa	Some	Active			
	22000	- Ione Reflex	KO	Tlexion	Couch			-
	Botation	Irritab.	None	Grimace	sneeze			
Low Low	Manual or Forceps	Colour	Blue	Body Pink Blue extrem	All pink			
Outlet Outlet	4	APGAR	Score	Dide extrem	Totals			
Attempted Only	ed Only	Erythron	nycin Ev	Ointment				
Other Intervention (e.g. Breech Ext	raction)	(If indica	ated)	Si	gnature			
Placental Delivery Date	Time	Resus	citation				M	ax. %
Spontaneous Assisted Man	ual	(Duratio	n)	< 1 min.	1–3 mir	n. >3 m	in. or d	uration
Umbilical Vessels 3 2	Cord pH done II No II Ye	as 02					_	
Abnormalities Describe		-PPV					_	
Oxytocin DNo DYes Type	Dose Route	- EI tube	(ventilati	on) L			_	
Infusion postpartum							_	
PPH INO Yes		Chest o	ompressi			-		
Estimated blood loss <a><500 mL	00 1000 mL □ > 1000 mL	Trachea	I suctioni		es			
Episiotomy Laceratio	ns	Meconiu	im below	cords INO I	Yes E	pinephrir	ne 🗆 No	Ye
None None	□ 3 ^{er} (anal sphincter)	Other m	ed No	Ves	1			_
Midline (vagir	nal) La Lo Lo	Delaye	d Cord	Clamping	Cord	Milking	d clare	nina ie
	neal) 🛛 4 ⁿ (rectal mucosa)	□ < 30	Sec.		not fe	ayeu cor asible)	u ciam	ung is
Mediolatera 2nd' (perio		10 20 10	60 800					
Mediolatera Mediolatera Mediolatera Mo Yes Count	verified Sutures Sponges	30 to > 1 m	60 sec. nin. to 3 n	nin.				
Mediolatena Mediolatena Mediolatena Mediolatena Mo Yes Count Analgesia/Anaesthesia	verified Sutures Sponges	□ 30 to □ > 1 m □ > 3 m	60 sec. nin. to 3 n nin.	nin.		8		
Mediolateta Verification Mediolateta Suture required DNo Pres Count Analgesia/Anaesthesia None Narcotic Spinal Epide	verified 🗆 Sutures 🗆 Sponges	□ 30 to □ > 1 m □ > 3 m □ Still	60 sec. nin. to 3 n nin. birth	nin. Date/Time las		8		



MATERNAL AND NEWBORN PROGRESS NOTES

ATE (YYYYMONDD) & TIME (HHMM)	PROGRESS NOTES	s	TATUS
		\bigcirc	
	\cap		
	V		
	6.01		
	~0		
	20		
	X		
	*		
age 1 of 2	Rev 2024/JUN	NSRCMN	

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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 pretern 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:



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NEWBORN	NUR	SING AS	SESSM	ENT								
Birth Date (YYYY-MM-DD)		Birth Time		Sex		Band #	1					
Birth Wt. (a)		Head Circ. ((cm)	Length	(cm)		1					
Blood Group			Feeding C	Breast	<u> </u>	Exclusive	1					
Mother Ba	iby	Coombs		With Sup	ppl, 🗆	Formula						
GESTATIONAL	L AGE	ASSESSME	NT 37 WEEKS	(Protorm)	Ma	than or	equal to 3	7 WEEKS /Ter	m) CEST		CE	
BREAST TISSU	IE	Less than or equal to 3mm			 Greater than or equipart 			al to 3mm	ing 0251		OL	
PLANTAR CRE	ASES	Smooth, Single Crease			Covering Ant. 1/3 or			r More By Dates w				wks
EAR		Relative	vely Flat, Pli	able		Stiff Carti Outer Asp	lage, Deep bect	Crease at	By As	sessment_		_wks
GENITALIA	Ma Fema	ale 🗆 Testes ale 🗆 Labia	s In Canal Minora Visib	le		Testes we Labia Maj	ell within S jora cover	crotum Minora	77			
HEAD TO TOE	ASSESS	MENT						Erythronny	cin eye ointr	ment given	Yes	D N
A OFNERA	NORM	AL ABNOR	MAL (Comm	ent on Abr	ormantie	85/		Given by	service and the second			
APPEARANC	E							Newhorn Sor	eening:	Discusser	1	
2. SKIN	-	Bruisir	na		D Pee	lina	-		оо. — ъд. [Done Done	-	
2. 5614	-	Petech	hiae		Jau	ndice		1		Arranged		
		Mecor	nium Stain		Oth Oth	er	C>	CCHD Scree	ning:			
		Edema	a		🗆 Mod	derate 🝂	Severe	Age at initial	screen:	AL 19/15	ho	urs
		Soft tis	ssue wasting	,				R. Hand	Foot	% Diff	Action	
3. HEAD		Overri	ding Suture		D Mol		•	1⊢			P/R/R	
		Hemail	toma		. Oth	X) :	Caput				P/K/I	-
4. EENT		Cleft L	.ip/Palate		3.00	¢.	-		P=Pass / R=F	Repeat / F=Fa		
		Suspe	cted Choan	al Altresia	\mathcal{O}			Further as: Screening	sessment rei declined	quired	See Note	35
5. RESP		Grunti	ng	\sim	D ↓ Bi	reath Sour	nds	Not clinical	ly appropriat	te		
		Nasal	ting	O	Tac Oth	hypnea er		Date (YYYY-M	M-DD):	Ti	me:	
6. CVS		Murme	ur		Cer	ntral Cyano	osis	Signature				
		🗆 Arrhyl	amia		Abs	ent Femo	ral Pulses	DISCHARGE		; Weight		g
		Tachy	cardia		🗆 Oth	er		Physician Order for 4	assessment discharne wr	completed itten		
7. ABDOMEN		Scaph	bio		Oth Oth	er		Feeding:	Breast 🗆	Exclusive	With Sup	pl.
		J Disten	ded						Formula			-
8. UMBILICAL		Mecor	nium Stain		C Thir	n			Medically In	dicated		
9. MUSCULO-	_	2 Vess	sels		Oth	er			Well Establ	ished		
		Spine			E Eon	it abnorma	al .	Eollow-up Bi	Problems C	Ongoing		
SKELETAL		Hip ab	normal		D Oth	er	-	- JIIOW-up Pl	an			
		Clavic	le									
10. GENITO- RECTAL		Hydro	cele		🗆 Imp	erforate a	nus	COMMENTS				
		Hypos	padias		Oth Oth	er						
		Undes	cended test	es								
11. CNS		□ ↓ Tone □ Abnor	e mal Cry		□ ↑⊤(□ Jitte	one C ery	Other					
Date (YYYY-MM-	DD):				Time	c		Date (YYYY-N	(M-DD):	Ti	me:	
Signature:								Signature:				
	d Eebru	90/2018							N	EWBORN NUR	SING ASSES	SMER



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