



NL Newborn Resuscitation Record (Form # D0062)

Guide for Completion

September 2023



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1. SUMMARY OF CHANGES

What's new?

The Newborn Resuscitation Record was developed in accordance with the recommendations from the Textbook of Neonatal Resuscitation, 8th Edition as well as through consultation with a variety of health care providers, including physicians, nurses, midwives, and respiratory therapists.

Reference Tables:

Target Pre-Ductal SpO₂, MRSOPA, ETT Size and Depth Insertion-NTL + 1 cm, and Medication Dosing Table

- Reference tables adjusted based on recommendations made in the Textbook of Neonatal Resuscitation, 8th Edition.

Interventions: Epinephrine Dose

Epinephrine dosing changed to align with the Textbook of Neonatal Resuscitation, 8th edition.

- ETT dose: 0.1mg / kg with no maximum dose
- UVC / IV / IO dose: 0.02 mg / kg

2. Introduction

The British Columbia Newborn Resuscitation Form and Guide for Completion has been adopted and adapted, with permission, for use in NL. The NL Newborn Resuscitation Form reflects best practice for neonatal resuscitation as recommended in the 8th Edition Neonatal Resuscitation Textbook.

This form is designed to reflect accurate and timely documentation of a neonatal resuscitation and act as a documentation tool for recording patient care. Also, it is within the Perinatal Program of Newfoundland and Labrador’s (PPNL) mandate to collect and analyze perinatal data, in an effort to evaluate provincial perinatal health outcomes, and improve health care system functioning. In order to assist in meeting this objective, specific fields on the perinatal forms are collected as part of a comprehensive database for the PPNL.

Complete and accurate documentation of assessments and interventions performed during a neonatal resuscitation is critical, as it assists with clinical decision making, decreases levels of stress among staff, patients, and families, and provides data that can guide quality improvement.^{1,2} Complete and accurate documentation is also essential for ensuring reliable evaluation of the Neonatal Resuscitation Program (NRP). Retrospective reviews of neonatal resuscitation documents report unsatisfactory documentation in 45% of reviewed records, and emphasize the need for a standardized neonatal resuscitation document.^{3,4} Education on the use of the standardized document, including simulation training, is also important as it may improve the quality of completion.⁵

In the event of a neonatal resuscitation, it is recommended that an experienced team member be assigned the role of the recorder, and this should be their only role. The role of the recorder is to document events as they occur in real time, and provide decision support to the team leader by prompting assessments and interventions based on the NRP algorithm.² Closed loop communication by all team members is also important, as it will assist the recorder in documenting the neonatal resuscitation event accurately and completely.

The NL Newborn Resuscitation Record (D0062) is a standardized form that was developed specifically for the documentation of neonatal resuscitation, and is consistent with the NRP guidelines (8th edition). It is also a tool that facilitates communication and continuity of care between facilities and care providers. In addition to the Newborn Record, which is completed at the time of birth, the Newborn Resuscitation Record should also be used if the baby requires resuscitation with oxygen or positive pressure ventilation (PPV) in the delivery setting. This form should also be used in any other setting where a baby requires resuscitation.

4 W's of Neonatal Resuscitation	
When?	In the event of a neonatal resuscitation.
Who?	An experienced team member should be assigned the role of the recorder.
What?	The role of the recorder is to document events as they occur in real time, and to prompt assessments and interventions based on the NRP algorithm.
Why?	To document the neonatal resuscitation event accurately and completely; to assist with clinical decision making, reduce stress, guide quality improvement.

3. Abbreviations

ABBREVIATION	DEFINITION
CPAP	Continuous P ositive A irway P ressure
GA	G estational A ge
ECG	E lectro c ardiography
EPI	Epinephrine
ETT	E ndo t racheal T ube
IO	I ntra o sseous
IV	I ntra v enous – For the Newborn Resuscitation Record IV includes peripheral, UVC and IO routes
LMA	L aryngeal M ask A irway
NICU	N eonatal I ntensive C are U nit
NRP	N eonatal R esuscitation P rogram
NSB	N ormal S aline B olus
NSF	N ormal S aline F lush
NTL	N asal T ragus L ength
PPNL	P erinatal P rogram N ewfoundland and L abrador
PEEP	P ositive E nd E xpiratory P ressure
PIP	P eak I nspiratory P ressure
PPV	P ositive P ressure V entilation
PSBC	P erinatal S ervices B ritish C olumbia
RBC	R ed B lood C ells
Resp.	Respiratory
Resus.	Resuscitation
Temp.	Temperature
UVC	U mbilical V enous C atheter
VOL-EXP-IV	V olume E xpansion I ntravenous (includes UVC and IO)

4. Documentation Recommendations

The purpose of the resuscitation record is to facilitate clear, concise, factual, objective, timely documentation of a neonatal resuscitation event. Delay in documentation can cloud the memory of events, increase the possibility of documentation errors, and affect the continuity of care. Due to the urgency of most resuscitation efforts, accurate event documentation is often not possible if one person is not assigned the role of the recorder. To ensure accurate and complete documentation of a neonatal resuscitation event, the following should be kept in consideration:

- The form is kept in a location that is quickly and easily accessible, and the location is known to all relevant staff.
- The recorder is identified/ confirmed as soon as possible in the event of a neonatal resuscitation, but preferably before the birth.
- The recorder is an experienced team member with a good working knowledge of the NRP algorithm.
- The recorder is familiar with the NL Newborn Resuscitation Record, how to enter data, and how to obtain the necessary information.
- Team members announce the assessments and interventions that they are performing clearly and directly to the recorder.
- Documentation is clear and legible.

Practice Point

Generally, a health care provider will document only the care that they provide, and will not allow others to document for them, nor will they document the care that is provided by someone else. There are two exceptions to this rule:

- In an emergency, such as a neonatal resuscitation, a health care provider who is designated as the recorder will document the care provided by other health care providers.
- A health care provider may record a verbal order given by another health care provider when circumstances require doing so, such as during a neonatal resuscitation.

5. Clinical Practice Resources

The NRP Textbook (8th edition), on which this record is based, is a valuable resource that may assist not only with best practices in newborn resuscitation, but also with clinical documentation. The textbook provides lessons on resuscitation, emphasizing the importance of adequate preparation, effective ventilation, and teamwork. It also summarizes the steps that should be followed to evaluate and resuscitate a baby with a flow diagram, and includes other valuable resources, such as case studies, reference tables, videos and photographs. Some of the reference tables have been embedded in the Newborn Resuscitation Record itself, in order to help guide decision making during a resuscitation event. These tables are summarized below.

Table 1: Target Pre-ductal SpO₂ After Birth

Target Pre-ductal SpO ₂ 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%

This table provides the range of target pre-ductal oxygen saturation values for the baby during the first 10 minutes after birth.

Table 2: MRSOPA

MR SOPA	
M	Mask adjustment
R	Reposition airway
Give 5 breaths –assess chest rise	
S	Suction mouth
O	Open mouth
Give 5 breaths –assess chest rise	
P	Pressure increase
Give 5 breaths –assess chest rise	
A	Alternate airway (ETT or LMA)

MR SOPA is a mnemonic that may assist in remembering the ventilation corrective steps that can be taken to address the common reasons for ineffective ventilation (i.e., leak around the mask, airway obstruction, and insufficient ventilating pressure).

Table 3: Initial ETT Insertion Depth for Orotracheal Intubation

Initial ETT insertion depth: NTL + 1cm = cm marking at lip		
Weight (g)	GA weeks	ETT size
Below 1000	Below 28	2.5 mm
1000-2000	28-34	3.0 mm
Greater than 2000	Greater than 34	3.5 mm
CHEST COMPRESSIONS = 100% oxygen		

This table is meant to be a guide for determining the appropriate size of the endotracheal tube that should be used and its depth of insertion (at the baby's lips), according to the baby's gestational age and/or weight.

Table 4: Medication Dosing

MEDICATION DOSING					
Epinephrine 0.1 mg/mL concentration					
	Baby's Weight				
MEDICATION	0.5 Kg	1 Kg	2 Kg	3 Kg	4 Kg
EPI – ETT 0.1 mg/kg (1 mL/kg)	0.05 mg (0.5 mL)	0.1 mg (1 mL)	0.2 mg (2 mL)	0.3 mg (3 mL)	0.4 mg (4 mL)
EPI – IV (0.02 mg/kg) (0.2 mL/kg)	0.01 mg (0.1 mL)	0.02 mg (0.2 mL)	0.04 mg (0.4 mL)	0.06 mg (0.6 mL)	0.08 mg (0.8 mL)
Administer IV Dose rapid push and FLUSH with 3 mL NS					
VOL–EXP- IV 0.9% NaCl 10 mL/kg	5 mL IV	10 mL IV	20 mL IV	30 mL IV	40 mL IV
Volume infused slowly over 5 – 10 minutes					

This table provides a summary of the dosing that should be used when administering endotracheal epinephrine, intravenous epinephrine, and/or volume expander, according to the baby's estimated weight

6. Completion of the Form

Place the patient **Addressograph / Label** in the dedicated space in the upper right corner of the page, on Pages 1 and 2. If the addressograph or label is not available, record the baby's **Surname, Sex, and Birth Order** (if a multiple pregnancy) in the same space.

Section A: Demographics and Background

This section of the Newborn Resuscitation Record can be completed anytime during the resuscitation event, including prior to, during, or immediately after the resuscitation has taken place. Information about the time of birth, cord clamping, and gestational age can be determined at the time of the resuscitation or derived from the Labour and Birth Summary Record or the Newborn Record.

Item	Description
Resus. Date (dd / mm / yyyy)	Record the date of the neonatal resuscitation event (following the dd / mm / yyyy format).
Resus. Time (hh:mm)	Record the time when the neonatal resuscitation event began (following the 24-hour clock hh:mm format).
Resus. Location	Specify the location where the neonatal resuscitation event occurred by selecting one of the following: <input type="checkbox"/> Birth Room <input type="checkbox"/> NICU <input type="checkbox"/> Other If ' Other ' is selected, please specify the location (e.g., mother's residence, postpartum unit, emergency department).
Time of birth (hh:mm)	Record the time when the baby was born (following the 24-hour clock hh:mm format).
Cord Clamped	Specify the time after birth (in seconds) when the umbilical cord was clamped by selecting one of the following: <input type="checkbox"/> <15 sec <input type="checkbox"/> 15–30 sec <input type="checkbox"/> 31–60 sec <input type="checkbox"/> >60 sec
Gestational Age (wks / days)	Record the gestational age (in weeks and days) at which the baby was born. Gestational age can be based on the mother's ultrasound exam or the baby's physical assessment.
Weight (g)	Record the weight of the baby (in grams) at the time of the neonatal resuscitation event. The baby's birth weight can be used if the resuscitation began immediately after birth. Specify whether the baby's weight was estimated or based on an actual measurement by selecting one of the following: <input type="checkbox"/> Estimated <input type="checkbox"/> Actual

Section B: Assessments and Interventions

Complete this section of the Newborn Resuscitation Record in real time as the resuscitation event is taking place. Do not leave blank lines between entries. Do not squeeze entries between lines.

Item	Description
1. Time	
<p>Actual time (hh:mm) or Age (min)</p>	<p>Record the timing of all major events (e.g., assessments and interventions) and decisions that took place during the neonatal resuscitation using a single time reference.</p> <ul style="list-style-type: none"> Use either actual time on a wall clock (following the 24-hour clock hh:mm format) or the baby's age (in minutes) from an Apgar timer. Indicate the time source by circling either 'ACTUAL TIME (hh:mm)' or 'AGE (min)' in the column header. <p><i>Note: The more complex the resuscitation, the more entries should be recorded.</i></p>
2. Assessment	
<p>Resp. Effort</p>	<p>Record the baby's respiratory effort by noting one of the following codes:</p> <p>✓ = Good / crying</p> <p>D = Decreased (defined as breathing that is so shallow or slow that it is unable to meet the needs of the body)</p> <p>0 = Absent/Gasping</p> <p>→ Go to <u>INTERVENTIONS, MEDICATIONS, NOTES</u></p> <p>Record if the respiratory effort is laboured (e.g., tachypnea, grunting, retractions).</p> <p>Record spontaneous respiratory rate and time of initiation of spontaneous effort.</p>
<p>Heart Rate (per min)</p> <p>A = Auscultation E = ECG Ox = Pulse oximeter</p>	<p>Top-left corner — Record the number of heart beats (per minute).</p> <p>Bottom-right corner — Specify the method by which the heart rate was obtained by noting one of the following codes:</p> <p>A = Auscultation E = Electrocardiography (ECG) Ox = Pulse oximeter</p> <p><i>Note: If the baby has a low heart rate or poor perfusion, a pulse oximeter is not a recommended method for measuring the heart rate.</i></p> <p><i>Note: Palpation of the cord is not a recommended method for measuring the heart rate.</i></p>
<p>O₂ SATURATION (%)</p>	<p>Record the baby's pre-ductal (right hand or wrist) oxygen saturation (%) as per the pulse oximeter.</p>
<p>Colour</p>	<p>Record the colour of the baby by noting one of the following codes:</p> <p>P = Pink M = Mottled / pale C = Cyanotic</p>
<p>Tone</p>	<p>Record the tone of the baby by noting one of the following codes:</p> <p>✓ = Active motion SF = Some flexion H = Hypotonic / flaccid</p>

Item	Description
3. Interventions	
<p>Device</p>	<p>Specify the ventilation device that was used by selecting one of the following: <input type="checkbox"/> T-piece <input type="checkbox"/> Self-inflating <input type="checkbox"/> Flow-inflating → Go to INTERVENTIONS, MEDICATIONS, NOTES</p> <p>Record if the device was changed during the neonatal resuscitation and the reason for the change.</p>
<p>O₂ on Blender (%)</p>	<p>Record the amount of oxygen delivered (%) as per the air / oxygen blender. <i>Note: This will include Positive Pressure Ventilation (PPV), Continuous Positive Airway Pressure (CPAP) or free-flow oxygen administration.</i></p>
<p>PPV Rate (per min)</p>	<p>Top-left corner — Record the number of administered breaths (per minute).</p> <p>Bottom-right corner — Indicate whether chest rise was observed by noting '✓' if it was.</p>
<p>Chest Rise ✓ if yes</p> <hr/> <p>PIP (cmH₂O)</p> <p>PEEP or CPAP</p>	<p>If Positive Pressure Ventilation (PPV) is used:</p> <p>Top-left corner — Record the Peak Inspiratory Pressure (PIP) in cmH₂O.</p> <p>Bottom-right corner — Record the Positive End-Expiratory Pressure (PEEP) in cmH₂O.</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; display: flex; flex-direction: column; align-items: center; width: 100px; height: 40px;"> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black;"></div> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black; display: flex; justify-content: space-between; align-items: center;"> PIP PEEP </div> </div> <div style="font-size: 24px; font-weight: bold;">e.g.</div> <div style="border: 1px solid black; padding: 5px; display: flex; flex-direction: column; align-items: center; width: 100px; height: 40px;"> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black;"></div> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black; display: flex; justify-content: space-between; align-items: center;"> 20 5 </div> </div> </div> <p>If Continuous Positive Airway Pressure (CPAP) is used:</p> <p>Top-left corner — *Leave blank*</p> <p>Bottom-right corner — Record the pressure in cmH₂O.</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; display: flex; flex-direction: column; align-items: center; width: 100px; height: 40px;"> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black;"></div> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black; display: flex; justify-content: space-between; align-items: center;"> CPAP </div> </div> <div style="font-size: 24px; font-weight: bold;">e.g.</div> <div style="border: 1px solid black; padding: 5px; display: flex; flex-direction: column; align-items: center; width: 100px; height: 40px;"> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black;"></div> <div style="width: 100%; height: 100%; border-bottom: 1px solid black; border-right: 1px solid black; display: flex; justify-content: space-between; align-items: center;"> 5 </div> </div> </div>

Item	Description
<p>M = Mask</p> <p>E = ETT</p> <p>L = LMA</p>	<p>Record the interface device used by noting one of the following codes:</p> <p>M = Mask</p> <p>E = Endotracheal Tube (ETT)</p> <p>L = Laryngeal Mask Airway (LMA)</p> <p>→ Go to Section <u>INTERVENTIONS, MEDICATIONS, NOTES</u></p> <p>If an ETT was used, document the following:</p> <ul style="list-style-type: none"> • Whether the ETT insertion was successful / unsuccessful • Name of the person who successfully / unsuccessfully performed the intubation procedure • Number of attempts • ETT size • Insertion depth • Confirmation method <p>If an LMA was used, document the following:</p> <ul style="list-style-type: none"> • Whether the LMA insertion was successful / unsuccessful • Name of the person who successfully / unsuccessfully inserted it • Number of attempts • LMA size • Confirmation method
<p>Chest Compressions</p> <p>with 100% O₂</p>	<p>Top-left corner — Indicate whether chest compressions were administered by noting '✓' if they were.</p> <p>Bottom-right corner — Indicate whether oxygen was turned up to 100% by noting '✓' if it was.</p>
<p>Epinephrine</p> <p>Route</p>	<p>Top-left corner — Indicate whether epinephrine was administered by noting '✓' if it was.</p> <p>Bottom-right corner —</p> <p>Record the route of epinephrine administration by noting one of the following codes: IV - Peripheral IV ETT – Endotracheal Tube UVC – Umbilical Venous Catheter</p> <p>→ Go to <u>INTERVENTIONS, MEDICATIONS, NOTES</u></p> <p>If epinephrine was administered, document the following:</p> <ul style="list-style-type: none"> • Concentration • Dose • Route • Prescriber • Effect

Item	Description
Volume	<p>Record the type of volume administered by noting one of the following codes:</p> <p>NSF = Normal saline flush (indicating that flush was given after epinephrine)</p> <p>NSB = Normal saline bolus (indicating that normal saline was given as the volume expander)</p> <p>RBC = Red blood cells (indicating that red blood cells were given as the volume expander)</p> <p>→ Go to <u>INTERVENTIONS, MEDICATIONS, NOTES</u></p> <p>If volume was administered, document the following:</p> <ul style="list-style-type: none"> • Dose • Route • Prescriber • Effect

4. Interventions, Medications, Notes

If the resuscitation event occurred at birth, specify the following in the first entry:

- Mode of delivery
- Number of babies delivered
- Information about pertinent delivery complications

Record other important information pertaining to the resuscitation event that was not captured in previous sections, including:

- Name of the person who performed invasive interventions
- Baby’s response to interventions that were performed
- Type of suctioning performed (i.e., oropharyngeal or tracheal) and type/amount of secretions (e.g., meconium, mucus, etc.)
- Umbilical Venous Catheter (UVC) size, insertion depth, confirmation method, and name of the person who inserted it
- Procedures or diagnostic tests that were performed, including the volume of blood taken for the test, and their results (if available / reported)
- Time of arrival and designation of additional health care providers who present to the resuscitation event
- Baby’s condition post-resuscitation
- How the baby was transported post-resuscitation

Temp. (Axilla) (°C)	<p>Record the baby’s axillary temperature (in degrees Celsius) at the end of the resuscitation or at 10 minutes, whichever comes first.</p> <p>→ Go to <u>INTERVENTIONS, MEDICATIONS, NOTES</u></p> <p>If a servo temperature probe has been applied to the baby, record the temperature at 5 minute intervals.</p>
Time	Record the time when the baby’s axillary temperature was assessed.
Transfer Time	Record the time when the baby was transferred from the initial location where the neonatal resuscitation was taking place.
Transfer To	Record the location to which the baby was transferred to at the end of the resuscitation event.

5. Additional Narrative Notes

Following the neonatal resuscitation, record a retrospective narrative summary of the event to supplement the real-time documentation of assessments and interventions. (Sections 1–4).

Section C: Sign-Offs

Complete this section of the Newborn Resuscitation Record at the end of the resuscitation event. This section identifies all those present at the resuscitation event, including the **Recorder**. The recorder’s name, signature, initials and title should be specified in the first entry of the sign-offs section.

Item	Description
Name	Each individual present at the resuscitation event should print their full name (including first name and surname) in one of the designated fields.
Signature	Each individual present at the resuscitation event should sign their name in the field corresponding to their entry, indicating that they have read and are in agreement with everything as it is documented on the Newborn Resuscitation Record.
Initials	Each individual present at the resuscitation event should sign their initials in the field corresponding to their entry.
Title	Each individual present at the resuscitation event should specify their title (e.g., MD, RM, RN, RRT) in the field corresponding to their entry.

7. References

1. Duplan, K.L. & Pirret, A.M., 2016. Documentation of cardiopulmonary resuscitation decisions in a New Zealand hospital: A prospective observational study. *Intensive and Critical Care Nursing*, Volume 37, pp. 75–81.
2. Weiner, G.M., 2016. *Textbook of Neonatal Resuscitation*, 7th Edition. Elk Grove Village: American Academy of Pediatrics.
3. Berglund, S. & Norman, M., 2012. Neonatal resuscitation assessment: documentation and early paging must be improved! *Arch Dis Child Fetal Neonatal Ed* 2012;97(3):F204–F208, Volume 97, pp. 204–208.
4. Braga, M.S. et al., 2015. Current practice of neonatal resuscitation documentation in North America: a multi-center retrospective chart review. *BMC Pediatrics*, 15(184), pp. 1–7.
5. Nevrekar, V. et al., 2017. An Interventional Quality Improvement Study to Assess the Compliance to Cardiopulmonary Resuscitation Documentation in an Indian teaching hospital. *Indian Journal of Critical Care Medicine*, 21(11), pp. 758 – 764.
6. *Neonatal Resuscitation Textbook 8th Edition 2021*. American Academy Pediatrics

If you have any questions or feedback about the Newborn Resuscitation Record, please email ppnl@easternhealth.ca or call **709-777-4656**

Obtaining Copies of the NL Newborn Resuscitation Record and Guide for Completion

For access to the [Guide for Completion](#) refer to PPNL website: PPNL.ca

Scroll to:

- PPNL education
 - Provincial Clinical Practice Guidelines and Forms (<https://cwhp.easternhealth.ca/for-health-professionals/ppnl-education>)

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