Introduction to the NRP Individual Integrated Skills Station Assessment Tool

The Individual Integrated Skills Station Assessment (ISSA) is a core component of the Canadian Pediatric Society (CPS) Neonatal Resuscitation Program (NRP) Provider workshops. It provides an objective and consistent method to assess learners' integration of cognitive, behavioural, and clinical skills. This document supports NRP Instructors in using the Standardized ISSA and was updated in 2026 to align with the 9th Edition NRP textbook.

The ISSA is available on the CPS NRP website. After logging in to the Instructor Database, it can be found under **Teaching Resources**.

Using the Integrated Skills Station Assessment Tool

To receive a CPS NRP Provider card, learners must successfully complete an ISSA during a workshop that includes simulation and debriefing. How much of the tool is completed will depend upon the learner's scope of practice, clinical responsibilities and institutional standards. It is recommended that anyone who would be expected to participate in the resuscitation of a newborn complete the Standardized ISSA.

General Principles

1. The ISSA is to be administered in real time (Standardized ISSA expected completion time: 10-15 minutes).
2. Instructor should orient the Learners to:
    - the ISSA process and expectations.
        - For example, how information such as vital signs, infant's condition will be given (metronome, monitor, verbally when/if asked, mannequin itself).
    - skills they will be expected to demonstrate
        - For example, drawing up medications, inserting umbilical venous catheter, insertion of ETT or LMA.
3. Learners must demonstrate skills independently without prompting or feedback. The ISSA is not a practice session and should be completed only after learners can integrate and perform the required skills.
4. Use of a standardized script may be helpful for new Instructors. See Table 1, for an example of a standardized script.

Table 1: Standardized Script for ISSA

We're here to complete your Integrated Skills Station Assessment [ISSA]. Remember to respond within your scope of practice: you will either do the skill yourself, or delegate the task and assist as your scope allows. ❑ You will be completing a *Standardized ISSA* and will be evaluated on Initial Steps, PPV, LMA, Intubation, Chest Compressions, Medication Administration as well as Special Considerations (Lessons 1-11). If included in your scenario, you will need to demonstrate how to prepare for intubation and/or umbilical catheter insertion, indicate the appropriate dose(s) of epinephrine; and identify the different routes for medication administration.

In just a moment, I'll give you some basic information about the baby you have been called to take care of. You will be given the opportunity to gather additional information about the perinatal history, assemble your team, assign their roles and check your equipment.

When you begin the resuscitation, work quickly and efficiently as if this was a real baby and a real resuscitation. Your team members will be available but will not initiate an intervention until directed by you to do so.

You can talk while you work, but don't let it slow you down. It is what you do in **real time** that I will evaluate.

The baby does not have a pulse or change colour, so you will have to ask me for that information. I won't tell you how the baby is doing until you ask, and neither your teammates or I will give you hints about what to do next. I will be using flash cards' or a metronome to indicate the heart rate (you will need to calculate the rate based upon what you see/hear).

OR

The baby does have a(n) umbilical pulse and/or HR with auscultation and will change colour in response to your interventions. Heart rate, saturations +/- respirations will be displayed on the monitor at the head of the bed, once the appropriate probes are applied. You will need to refer to the monitor to learn how the baby is responding.

Do you have any questions?

This is your scenario: (Instructor provides scenario)

Steps to Scoring the ISSA

The ISSA is both a formative and summative tool. That said, to successfully complete the workshop, the participant should attain at least 80% on the ISSA and must demonstrate correct technique on the **6 bolded and shaded** items.

Items on the ISSA are allocated points as follows:

0 = not done
1 = done incorrectly, incompletely or in the wrong order
2 = done correctly, in right order and in a timely fashion

There are **6 bolded and shaded** items for the Standardized ISSA: all 6 items must be done correctly, in the right order and in a timely fashion.

Increasing oxygen to 100% during chest compressions is not mandatory, however, instructors need to bring attention to the importance of this step and provide feedback to learners when this step is missed.

Additional items to be demonstrated but not marked on ISSA

- All learners should demonstrate understanding of all components of the NRP algorithm, regardless of scope as they may lead resuscitation and support clinicians whose scope include advanced skills.
- When your learners are going through MR SOPA (**M**ask readjustment **R**eposition; **Su**ction mouth & nose **O**pen mouth; **P**ressure increase; **A**lternate airway) they should not move to the next step in the mnemonic if they cannot effectively troubleshoot the step they are on (i.e. if they cannot get a seal on the mannequin, then suctioning and opening the mouth further may not help).

- If unable to ventilate through ET tube (A' of MR.SOPA) indicates option to suction through ET tube or use ET to suction below the cords.
- Learner confirms presence of chest movement; breath sounds and exhaled CO2 if intubated or a laryngeal mask is in situ
- Learner considers an alternative airway (Laryngeal mask or intubation) and applies ECG leads
- Learner confirms presence of chest movement, breath sounds/air entry and exhaled CO2
- Once the team has started chest compressions, it may be helpful for them to refer to the ACORD mnemonic (Airway, Compressions, Oxygen, Rate, Depth) and take corrective actions when the heart rate is not rising.
- When compressing the learner being evaluated must demonstrate the correct compression technique for 60 seconds – this means using the 2-thumb technique, from the head of the bed, compressing to a depth of 1/3 of at A/P diameter and ensuring there is complete recoil of the chest.
- When chest compressions and ventilation occur, the learner being evaluated must demonstrate the ability to coordinate the chest compressions and ventilation. In some instances, as the instructor, you may ask your learners to switch positions so you can evaluate them in both the role of the person ventilating and the person compressing.
- Learners must be able to identify the need for epinephrine (HR less than 60bpm despite effective ventilation and coordinated compressions for 60 seconds). Learners should be able to verbalize the correct, weight-based dosing of epinephrine (0.02mg/kg IV (0.2mL/kg) and 0.1mg/kg (1ml/kg) via ET.
- Learners should be able to verbalize the need for an ET dose of epinephrine, while the umbilical catheter is being prepared.
- Learners whose scope include the insertion of an umbilical catheter should demonstrate knowledge of preparation, insertion and administration of medications through the umbilical venous catheter including a 3mL flush.
- Learners should be able to identify that if an umbilical catheter could not be placed an intraosseous needle is an additional option.

Finally, the following two of the interventions on the Standardized ISSA are optional, and scored only if included in the learner's scenario:

- ❑ *Identifies the need for volume administration and administers correct solution, volume and rate of infusion*
- ❑ *Identifies additional interventions indicated based on history and clinical response to resuscitation*

ISSA Totals and Passing Learners

Standardized ISSA Totals:
Scoring is complex due to optional interventions. The minimum passing score varies by the number of optional items and is shown on the final line of the ISSA.

To pass the ISSA, learners must score 80% or higher on scored items ***and*** achieve 2/2 on all bolded and shaded items.

Learners who are unsuccessful after two attempts should have their readiness reassessed by the instructor. A comments column is included to allow instructors to record notes during the scenario and learners may have the opportunity to complete self-reflection portion of the ISSA.