



An Introduction to the NRP Individual Integrated Skills Station Assessment Tool

The Individual Integrated Skills Station Assessment (ISSA) is an important tool used in the Neonatal Resuscitation Program (NRP) Provider workshops. It lets Instructors assess the learner’s ability to integrate the cognitive, behavioural and clinical skills introduced in preparation for the workshop—both in the pre-reading and online exam*— as well as the concepts and skills addressed in the Performance Skills Stations and clinical scenarios.

The ISSA offers an objective and consistent method to evaluate learners. This document has been created to assist NRP Instructors as they use the ISSA during Provider courses.

The Canadian NRP Steering Committee endorses the continued use of the ISSA in Canada; in 2021 it has been further updated to reflect the changes in the 8th Edition NRP textbook.

Using the Integrated Skills Station Assessment Tool

Every learner must successfully complete an ISSA in order to receive a CPS NRP Provider card. (This is in addition to successful completion of the online exam (prior to the workshop), and participation in a face-to-face learning session (workshop) that includes a simulation and debriefing exercise.)

The ISSA now incorporates the evaluation items for both “Essential” and “Advanced” skills in one document (see below on page 5-6). 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 attend a birth complete the “Advanced” (exam and) ISSA; those people who are involved in the care of a newborn but are not responsible for anticipated resuscitations can complete the “Essentials” (exam and) ISSA. CPS recommends that each organization carefully consider the roles of their staff as they choose which (exam and) ISSA a learner should participate in.

The Essential ISSA (page 1 of the tool) covers content in Lessons 1-4 (equipment, initial steps, initiating positive pressure ventilation (PPV) and corrective steps when effective PPV is not achieved up to and including laryngeal mask (LM) placement.

The Advanced ISSA (page 2 of the tool) covers the above content as well as demonstration of the correct technique for intubation (or assisting with intubation), compressions and medication administration (Lessons 5 and 7). It could also include content from the remaining lessons—for example, management of a pneumothorax, extremely preterm infant or an infant with a congenital anomaly (Lessons 5-11).

In addition, in keeping with adult learning principles and reflection on action, a section has been added to the tool where both the student and the Instructor can reflect upon the knowledge, skills and behaviors demonstrated in the scenario.

General Principles

1. The ISSA is to be administered in “real time”; therefore, most Essential ISSA’s would be completed in approximately 5 minutes, and the Advanced ISSA within 10-15 minutes.
2. Learners should be oriented 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); and
 - skills they will be expected to demonstrate—such as drawing up medications, inserting umbilical venous catheter, insertion of ETT or LM. A demonstration of an ISSA scenario and performance is very useful.
3. Learners will be expected to demonstrate knowledge and skills without prompting and/or requesting feedback during the scenario. It is not a “practice” session; learners should be invited to complete the ISSA when they have demonstrated the ability to integrate and perform the skills from the Performance Skills Stations.

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

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| <p>We’re here to complete your Integrated Skills Station Assessment [ISSA].</p> <p>Remember to respond within your scope of practice: you will either do the skill yourself or assist as your scope allows.</p> <ul style="list-style-type: none"><input type="checkbox"/> You will be completing an <i>Essential ISSA</i> and will be evaluated on Initial Steps, PPV and LM (Lessons 1-4). <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><input type="checkbox"/> You will be completing an <i>Advanced ISSA</i> and will be evaluated on Initial Steps, PPV, Intubation, Chest Compressions, Medication Administration as well as Special Considerations (Lessons 1-11). <p>If included in your scenario, you will need to indicate the appropriate dose(s) of epinephrine; demonstrate how to prepare for intubation and/or umbilical catheter insertion; and identify the different routes for medication administration.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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 team mates or I will give you hints about what to do next. I will be using <input type="checkbox"/> ‘flash cards’ or <input type="checkbox"/> a metronome to indicate the heart rate (you will need to calculate the rate based upon what you see/hear).</p> <p style="text-align: center;">OR</p> <p>The baby does have a(n) <input type="checkbox"/> umbilical pulse and/or <input type="checkbox"/> HR with auscultation and <input type="checkbox"/> 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.</p> <p>Do you have any questions?</p> <p><u>This is your scenario: (Instructor provides scenario)</u></p> |
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Adapted from Neonatal Resuscitation Instructor Manual, 2006, p. 4-8.

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 83% on the ISSA and must demonstrate correct technique on the **6 bolded and shaded (first 4 for essential courses)** 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 essential course the learner must do the first 4 of these items correctly, for the advanced course all 6 items must be done correctly, in the right order and in a timely fashion (i.e. score 2 points). These 6 items are:

- Checks equipment to provide warmth, suction, ventilation and targeted oxygenation*
- Indicates need for and initiates positive pressure ventilation*
- Takes corrective action when heart rate not rising and chest not moving*
- Provides effective positive pressure ventilation for 30 seconds*
- Identifies need to start chest compressions*
- Demonstrates correct compression technique*

There are 2 additional line items that are bolded but not shaded. These *two items* are bolded because they are steps that are often missed in both simulation and clinical practice.

The two bolded items are:

Increases oxygen to 100%

AND

Takes corrective actions when the HR is not rising using the CARDIO mnemonic

The first was a bolded item in the 7th ed ISSA and should not be new to instructors or learners.

The second “Takes corrective actions when the HR is not rising using the CARDIO mnemonic” is bolded in order to draw attention to the necessary steps for successful chest compressions. The CARDIO mnemonic is new in the 8th ed of NRP, and although it is an important component of neonatal resuscitation, CARDIO is not, at this time, a “must do correctly” step.

Some of the items, even though not scored, should be demonstrated (e.g., confirms presence of chest movement, breath sounds and exhaled CO₂ if intubated).

Finally, the following two of the interventions on the Advanced 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*

The total score on the ISSA will vary depending on:

- 1) the ISSA administered (Essential or Advanced) and
- 2) inclusion of the optional items.

The learner must score 83% or greater on the scored items to successfully complete the ISSA. Remember, the learner must score 2/2 on the **first 4 bolded and shaded items for essential** courses and **6 bolded and shaded items for advanced**.

Essential ISSA

The maximum score on the **Essential ISSA** is 32 and to achieve successful completion, the learner must score at least 26/32.

Advanced ISSA

Scoring the Advanced ISSA is somewhat more complex as a result of the optional interventions. The table below outlines the minimum passing score needed for each of possible options:

| Advanced ISSA | | | |
|---------------------|---------------|-----------------------|------------|
| # of Optional Items | Maximum Score | Minimum passing Score | Percentage |
| 0 | 48 | 40 | 83.3 |
| 1 | 50 | 42 | 84 |
| 2 | 52 | 44 | 84.6 |

The passing scores are indicated on the last line of the ISSA.

If the learner is unsuccessful after two attempts at either ISSA, the Instructor should re- evaluate the learner’s readiness to complete the ISSA.

Finally, a comments column has been added for the convenience of Instructors who make notes on the form during the scenario.

The ISSA has Instructor Notes and footnotes to guide the Instructor when running the scenario and scoring.

The ISSA is available on the CPS NRP website. Once you log in to the Instructor Database, it is located under “Teaching Resources.”