



# **Child Health BC**

# Instructions for using the BC PEWS Inpatient Flowsheet

# **Purpose**

The purpose of this document is to provide clear, standardized instructions for using the British Columbia Pediatric Early Warning System (BC PEWS) Inpatient Flowsheet. For information on documentation and assessment standards, please refer to the British Columbia College of Nurses and Midwives (BCCNM) standards of practice and/or guidelines in your health authority. For information on how to perform specific components of a pediatric assessment, please refer to health authority approved clinical skills guidance (e.g., Elsevier or others).

For Emergency Department settings, please refer to the <u>BC PEWS ED Instructions for Using the Pediatric Emergency Nursing Documentation Record</u>.

# **Site Applicability**

The <u>BC PEWS Guideline</u> and Inpatient Flowsheet, which includes age-specific vital sign norms, is used in all clinical areas where BC PEWS has been implemented. The BC PEWS Inpatient Flowsheet is as a standardized, evidence-informed documentation tool for consistent use across these areas.

This practice is relevant for all nurses caring for pediatric patients in locations designated by their health authority.

#### **Abbreviations**

Use only abbreviations that are included in the legend of the flowsheet and do not use any abbreviations or symbols that are on the "DO NOT USE" list (e.g., @, <, >) from Institute of Safe Medication Practice (ISMP) Canada. Follow your health authority standards for approved abbreviations.

#### **For all Pages**

Record the date at top left of each page including day, month, and year (e.g., 12 SEP 2025 or SEP 12, 2025) spelling out the month using first 3 letters. Place the addressograph or label on top right corner of each page. Initial in the space provided beside the time. Record the actual time of the assessment or intervention in the assigned space using 24-hour clock format (e.g., 0300).

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 1 of 19







# **Graphic Record (page 1)**

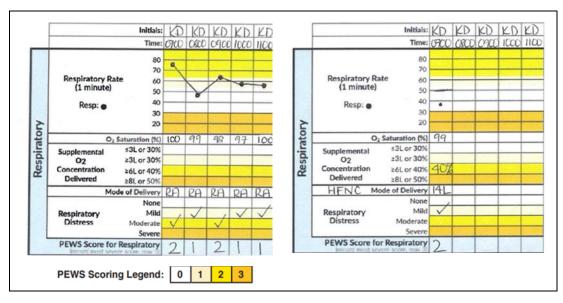
# Recording in Respiratory section

**Respiratory Rate:** Record respiratory rate using a ● symbol. Draw a line to connect each subsequent rate symbol to create a visual trend. May record numerical value under dot.

Oxygen Saturation (SpO<sub>2</sub>): Record SpO<sub>2</sub> percentage using a numeric value within the designated box in the space provided.

Supplemental Oxygen ( $O_2$ ): Record supplemental  $O_2$  concentration delivered in litres per minute (L/min) or  $O_2$  percentage delivered in appropriate spaces. Record  $O_2$  mode of delivery following your health authority abbreviation guidelines (e.g., Room Air [RA], Nasal Prongs [NP], Heated Humidified High-Flow Nasal Cannula [HFNC] etc.).

When administering HFNC record the actual numerical value of <u>fraction of inspired oxygen</u> (FiO<sub>2</sub>) delivered in the supplemental  $O_2$  concentration box as a percentage AND the prescribed L/min flow in the mode of delivery box, noting HFNC in front of mode of delivery. Patients receiving HFNC will be scored based on the FiO<sub>2</sub> delivered.



Effective date: 13/05/2025 Page 2 of 19





**Respiratory Distress:** Record level of respiratory distress using  $\checkmark$  symbol to indicate as per Canadian Triage and Acuity Scale (CTAS)<sup>1</sup>.

Levels of respiratory distress:

**Mild**: dyspnea; tachypnea; shortness of breath on exertion; no obvious increased work of breathing; able to speak in sentences; mild shortness of breath on exertion; frequent cough.

**Moderate**: increased work of breathing, restlessness, anxiety, or combativeness; tachypnea; hyperpnoea; mild increased use of accessory muscles, retractions, flaring, speaking phrases or clipped sentences, stridor but airway protected, prolonged expiratory phase.

**Severe**: excessive work of breathing, cyanosis; lethargy, confusion, inability to recognize caregiver, decreased response to pain; single word or no speech; tachycardia or bradycardia; tachypnea or bradypnea; apnea irregular respirations; exaggerated retractions, nasal flaring, grunting; absent or decreased breath sounds; upper airway obstruction (dysphagia, drooling, muffled voice, labored respiration's and stridor); unprotected airway (weak to absent cough or gag reflex); poor muscle tone.

Record PEWS score for respiratory category in the appropriate box. If the score is zero, record 0.

#### Recording in Cardiovascular Section

**Heart Rate:** Record apical heart rate using a ● symbol. Draw a line to connect each subsequent rate symbol to create a visual trend. May record numerical value under dot.

**Blood Pressure**: Record using  $^{\vee}$  for systolic pressure and  $^{\wedge}$  for diastolic pressure. If applicable, indicate limb used for blood pressure measurement (if other than arm), and patient position using the following symbols:



Record mean arterial pressure (MAP) using the following equation:

Systolic Pressure + (2 x Diastolic Pressure)

**Capillary Refill Time:** Indicate capillary refill time using ✓ symbol in the appropriate box.

**Skin colour:** Indicate skin colour using ✓ symbol in the appropriate box.

Record the cardiovascular PEWS score in the appropriate box. If the score is zero, record 0.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 3 of 19







## Recording in Behaviour Section

Indicate assessed patient behaviour using  $\checkmark$  symbol in the appropriate box. Calculate and record the behaviour PEWS score in the appropriate box. If the score is zero, record 0.

#### Other PEWS Score Indicators

Record unexpected persistent vomiting following surgery or bronchodilator use every 20 minutes using ✓ symbol in the corresponding box. If the score is zero, record 0.

#### **Total PEWS Score**

Record the total PEWS score with every set of vital signs. If the score is zero, record 0. To obtain a total PEWS score, add the category scores together:

Respiratory score maximum of 3
+ Cardiovascular score maximum of 3
+ Behaviour score maximum of 3
+ Persistent vomiting following surgery
+ Bronchodilator every 20 minutes maximum of 2
= Total PEWS score maximum score 13

When calculating the PEWS score, the maximum score for each of the sections (Respiratory, Cardiovascular, and Behaviour) is three.

#### Situational Awareness Factors

With each set of vital signs assess, identify, and document any situational awareness factors present using  $\checkmark$  symbol and document details in the Nurses Notes (NN).

#### **PEWS Escalation Process Activated**

When the Escalation Process is activated record the actual time using 24-hour clock format (e.g., 0300) and review recommended actions in the <u>BC PEWS Escalation Aid for Inpatient & Emergency Settings</u>. Consult and plan with team members to determine appropriate steps to escalation care based on the escalation aid and health authority standards.

Document escalation actions taken to mitigate identified risk, the patient's response to interventions, and additional actions in the nurses note section. Note if no action is being taken in response to identified risk, document reasoning and plan for reassessment.

In situations where the physician is present, the escalation to physician should be documented. However, escalation is not always to the physician, it may include consulting another healthcare professional such as a respiratory therapist or a nurse with more experience in pediatrics. If escalation of a patient with an elevated score is delayed due to a transient issue (e.g., upset, effect of medication etc.), document decision and your plan for reassessment.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 4 of 19







## Temperature

Record temperature in Celsius using a ● symbol, draw a line to connect each subsequent symbol to create a visual trend. May record numerical value under dot. Indicate the source of temperature measurement: oral (O), axilla (A), rectal (R), temporal (T) or esophageal (E).

#### **Neurological Assessment and Care (page 2)**

#### **Neurological and Spinal Assessment**

**Pupils:** Record pupil size in millimetres using the guide located on the bottom left corner of the form. Record pupillary response using the following letters to indicate B = Brisk, S = Sluggish, and/or F = Fixed under the corresponding time column.

Glasgow Comma Scale (GCS): Record using ✓ symbol to indicate the score for eye, verbal, and motor response under the time column when the assessment was completed. Record the total numeric score for GCS in the total score box under the corresponding time column.

**Muscle strength:** Record numeric score in appropriate box for each limb under the corresponding time column.

**Color, sensation and warmth of extremities:** Record using ✓ symbol under the corresponding time column to indicate Normal or write NN to indicate that there is further documentation in the Nurses Notes section.

**Bladder Function:** Record using ✓ symbol under the corresponding time column to indicate Normal or write NN to indicate that there is further documentation in the Nurses Notes section.

#### Care

**Regular Checks:** Record the actual time of the assessment or intervention in the assigned space running across the top of the page. Use 24-hour clock format (e.g., 0300).

**Pain:** Record the pain score, tool used and location of pain under the time column when pain was assessed. Pain score will be recorded as a numeric value. Name of tool and location of pain to be written in space provided. If more space is required write NN and record observations in the Nurses Notes section.

**Arousal Score:** Record the patient's level of arousal score using the guide on the bottom right corner of the form.

**Sepsis Screen:** Record using ✓ symbol to indicate when a sepsis screen was completed. Please use the sepsis screening tool identified by your health authority. Write NN to indicate that there is further documentation in the Nurses Notes section.

**Enteral/ Gastric tube:** Record using ✓ symbol to indicate the Enteral/Gastric Tube site to source check was completed. Document this hourly or per your health authority guidelines. Write NN to indicate that there is further documentation in the Nurses Notes section.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 5 of 19







Intravenous (IV) Site to Source: Record using ✓ symbol to indicate the IV site to source check, including rate, solution, and concentration was completed. This ✓ also indicates that the IV Touch, Look, and Compare (TLC) check was completed. Document this hourly or per your health authority guidelines. Use NN to indicate further documentation in the Nurses Notes section.

**Patient Safety Check:** Record using ✓ symbol to indicate a patient safety check (e.g., side rails and head rails fully retract, functioning suction device with appropriate-size suction catheters present, choking hazards removed from bedside etc.) was completed in the space provided. Document this hourly or per your health authority guidelines.

**Pediatric Respiratory Assessment Measure (PRAM) Score:** When caring for patients with Asthma calculate and record PRAM scores per the guidelines used in your health authority.

**Phototherapy:** When applicable record using ✓ symbol to indicate you have checked the phototherapy module and eye shield placement. Document this hourly or per your health authority guidelines.

**Incubator Temperature:** Record incubator temperature in Celsius. Document this hourly or per your health authority guidelines.

**Blank:** This section includes blank spaces for recording any additional regular checks such as site to source check of a chest tube. Document this hourly or per your health authority guidelines.

Routine Nursing Care: Record using ✓ symbol to indicate the time the patient was repositioned (q2h & PRN), ambulated, received foley care and/or peri-care, received a shower (S) or bath (B), received mouth care, had the oximeter probe site changed (q4h & PRN), and had family/caregiver present at the bedside. This section includes a blank space for recording any additional routine nursing care.

## Intake and Output (page 3)

**Maintenance Fluid:** Calculate the maintenance fluid requirement for the patient in millilitres per hour (mL/hr) and record it on the line provided. Include all enteral, oral, and intravenous products.

#### For example:

- a) Patient weighs 15 kg,  $(100 \text{ ml/kg/day} \times 10 \text{ kg}) + (50 \text{ ml/kg/day} \times 5 \text{ kg}) = 1250 \text{ ml}$ . 1250 ml/day  $\div$  24 hr/day = 52 ml/hr.
- b) Patient weighs 22kg,  $(100 \text{ ml/kg/day} \times 10 \text{ kg}) + (50 \text{ ml/kg/day} \times 10 \text{kg}) + (20 \text{ml/kg/day} \times 2 \text{kg}) = 1540 \text{ ml}. 1540 \text{ ml/day} ÷ 24 \text{ hr/day} = 64 \text{ ml/hr}.$

Alternatively, calculate the hourly maintenance fluid for a patient who weighs 15 kg,  $(4 \text{ ml/kg/hr} \text{ for the first } 10 \text{ kg} = 40 \text{ ml}) + <math>(2 \text{ ml/kg/hr} \text{ for the second } 10 \text{ kg} = 10 \text{ ml}) = 50 \text{ ml/hr.}^2$ 

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 6 of 19



**Time:** Record the actual time of the assessment in the assigned space running across the top of the page, using the 24-hour clock format (e.g., 0300). Record the volume infused during that hour below. If any infusion, medication, or oral intake is complete at any time other than on the hour it is included in that hour's intake.

**Intake:** Record all parenteral, enteral, and oral intake. Describe each type of intake on a separate line including any additives.

Calculate the total volume of intake for hourly and if required, cumulative volumes.

Cumulative volumes can be indicated by writing the hourly total over the cumulative total.

Circle the total volume infused at the completion of any infusion if the infusion completes before the end of the shift as a reminder to add this volume to the cumulative total for the shift.

Calculate all cumulative total volumes of intake recorded during the shift to obtain a 12-hour total; record this amount at the end of the last column and circle.

**Output:** Record all types of output including urine, stool, blood loss, emesis and drainage. Describe each type of output on a separate line.

Record under the appropriate hour the volume of any type of output. If output occurs at any time other than on the hour it is included in that hour's output.

Calculate the total volume of output for hourly and if required, cumulative volumes. Cumulative volumes can be indicated by writing the hourly total over the cumulative total.

Calculate all cumulative total volumes of output recorded during the shift to obtain a 12-hour total; record this amount at the end of the last column and circle.

Record Bristol stool score (type 1-7) for all stool output under appropriate time column.

Calculate the 12-hour fluid balance by subtracting the total fluid output from the total fluid input. Record the result as a positive (+) value if input exceeds output, or as a negative (–) value if output exceeds input, in the designated box.

Calculate the 24-hour fluid balance by adding the two 12-hour balances together. For example: if the 0700-1900 balance is +300 mL and the 1900-0700 balance is -200 mL the 24-hour fluid balance would be +300 mL + -200 mL = +100 mL.

**Total Fluids/Urine Output:** Calculate the total amount of fluid intake and urine output in mL/kg/hr in the spaces provided. This is to be done as part of each 12-hour balance.

**Weight:** Record admission weight, previous 24-hr weight, and current weight in kilograms (kg) in the spaces provided.

**Intravenous Initiation:** Record any intravenous access initiated using space provided. Include signature of initiator.

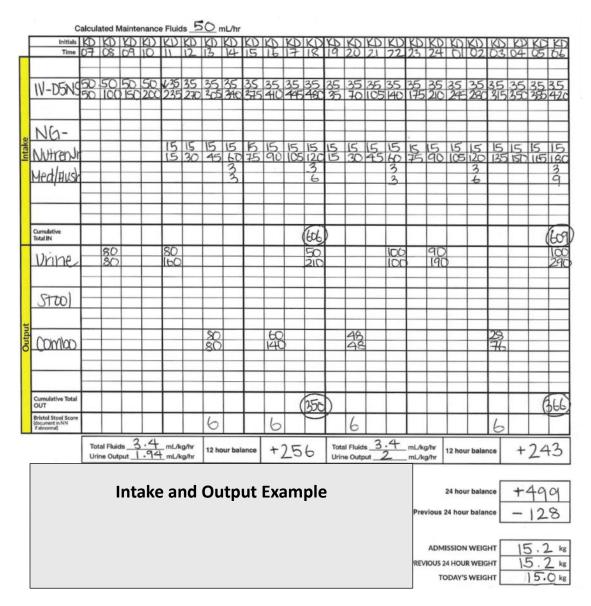
This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 7 of 19





**Other Measurements:** Record in the space provided any measurements taken such as abdominal girth, head circumference, and height. Record height or length in centimetres to the nearest 0.1 cm.



This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 8 of 19







## Initial Assessment Documentation (Day Shift Page 4/Night Shift Page 5)

Complete all sections for all patients by checking the appropriate descriptors and filling in the blank spaces provided to indicate details of assessment findings for the day or night shift. If an assessment finding is abnormal, indicate using  $\checkmark$  symbol in NN and provide details in the Nurses Notes. If unable to complete all components of a head-to-toe assessment, indicate using  $\checkmark$  symbol in NN and provide details in the Nurses Notes explaining why it was not assessed.

#### **Precautions Documentation**

Following a Point-of-Care Risk Assessment<sup>3</sup>, document precautions initiated on the line provided (e.g., Airborne, Contact, Droplet, Contact Plus or Enhanced Contact Precautions).

#### **Respiratory Documentation**

**Airway:** Using ✓ symbol in the corresponding box, indicate the patency of the airway.

- a) <u>Clear and maintains own:</u> indicates the airway is open and unobstructed for normal breathing and requires no intervention to maintain<sup>4</sup>.
- b) <u>Unable to maintain:</u> indicates the airway is obstructed and cannot be maintained without simple (e.g., head tilt-chin lift) and/or advanced interventions (e.g., intubation)<sup>4</sup>.

**Work of Breathing:** Using ✓ symbol in the box provided indicate the child's work of breathing.

- a) Respirations even/unlaboured: is breathing accomplished with minimal work, resulting in quiet breathing with unlaboured inspiration and passive expiration.<sup>5</sup>
- b) **Stridor**: is a coarse, usually higher pitched breathing sound, typically heard on inspiration. It may also be heard during both inspiration and expiration.<sup>4</sup>
- c) **Grunting**: is a short, low-pitched sound heard during expiration.<sup>4</sup>
- d) Referred upper airway sounds: are commonly observed in small children. These sounds, such as stertor caused by nasal congestion, can be uniformly heard throughout the lung fields due to their small size and thin chest walls.<sup>6</sup>
- e) <u>Nasal flaring:</u> is the dilation of the nostrils with each inhalation. The nostrils open more widely to maximize airflow. Nasal flaring is most commonly observed in infants and younger children and is usually a sign of respiratory distress. <sup>5</sup>
- f) <u>Tracheal tug:</u> is an abnormal downward movement of the trachea accompanied by in-drawing toward the thoracic cavity during inspiration.<sup>7</sup>
- g) <u>Head bobbing:</u> is caused by the use of neck muscles to assist breathing. The child lifts the chin, extends the neck during inspiration, and allows the chin to fall forward during expiration.<sup>5</sup>
- h) <u>Tripod:</u> is when a child sits straight up with arms extended wide in front on knees or other surface. This is an attempt to utilize chest and neck muscles to assist with breathing.<sup>8</sup>
- i) <u>Abdominal breathing:</u> is when the chest wall draws inward, and the diaphragm pushes the abdomen upward (in a see-saw motion).<sup>9</sup>

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 9 of 19





- j) <u>Indrawing:</u> is inward movement of the chest wall/tissues/sternum during inspiration, also known as retrations.<sup>5</sup> Identify location of indrawing in space provided.
  - Intercostal: inward pulling of the skin between the ribs during inhalation.<sup>10</sup>
  - <u>Subcostal:</u> inward movement of the tissue below the rib cage during inhalation.<sup>11</sup>
  - <u>Substernal:</u> inward movement of the tissue below the sternum (breastbone) during inhalation.<sup>12</sup>
  - <u>Suprasternal</u>: visible indrawing of the skin above the sternum and between the sterno-cleido-mastoid muscle with every intake of breath.<sup>13</sup>

**Respiratory Distress**: Using ✓ symbol in the box provided indicate the child's level of respiratory distress, as defined in the Graphic Record section.

**Chest Movement:** Using  $\checkmark$  symbol in the box provided indicate if chest movement is symmetrical or non-symmetrical. Look for equal (left & right) rise and fall of the chest with inspiration and expiration.

**Air Entry:** Using ✓ symbol in the box provided indicate the auscultated breath sounds heard.

**Adventitious Sounds:** Using  $\checkmark$  symbol in the box provided indicate if any adventitious sounds are heard or identified.

- a) <u>Crackles:</u> are sharp crackling inspiratory sounds. Crackles can be dry (more often heard with atelectasis or interstitial lung disease); or moist (an indication of accumulation of alveolar fluid). The difference between coarse and fine crackles is thought to be due to the size of the airway snapping open.<sup>14</sup>
  - **Fine crackles:** smaller airways snapping open during inspiration.
  - **Coarse crackles:** larger airways producing a deeper pitch, like the sound of separating hook-and-loop fasteners (Velcro).
- b) <u>Wheezes:</u> are high-pitched or low-pitched whistling sounds heard most often during expiration. May be audible with or without a stethoscope.<sup>13</sup>

**Cough:** Indicate using  $\checkmark$  symbol in the box provided if a cough is present. Indicate if the cough is productive or non-productive and record the description of the cough in the Nurses Notes section. Indicate using  $\checkmark$  symbol in the box provided if there is any nasal congestion present.

**Chest Drainage Device:** Indicate using  $\checkmark$  symbol in the box provided, assessment findings related to chest drainage device if applicable. Indicate the type of chest tube (e.g., Pigtail, Blake drain), chest tube location, the level of suction in centimetres of water (cm H<sub>2</sub>0), type of suction (e.g., underwater seal or bulb), the type of drainage, and if there is an air leak present.

**Drainage:** Indicate using ✓ symbol in the box provided the type of drainage noted (e.g., sanguinous, serosanguinous, fresh, serous and/or purulent).

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 10 of 19







#### Cardiovascular Documentation

**Central and Peripheral Colour:** Indicate central and peripheral skin colour using ✓ symbol in the box provided.<sup>15</sup>

- a) <u>Baseline for patient:</u> the typical skin colour for the child (confirm with parent/caregiver).
- b) **Pink:** a pinkish hue on the skin, especially visible in lighter skin tones.
- c) Pale: the lack of typical colour in the skin or mucous membranes.
- d) Flushed: redness of the skin.
- e) **Grey:** an ashen, pale grey/blue tinting throughout skin.
- f) **Cyanotic:** a bluish discolouration/tone throughout skin.
- g) **Mottled:** irregular or patchy discolouration of the skin.

**Capillary Refill Time:** Record central and peripheral capillary refill time in seconds in the space provided.

**Peripheral Temperature:** Indicate using  $\checkmark$  symbol in the box provided peripheral skin temperature. Skin temperature should be consistent over the trunk and extremities.

**Hydration:** Indicate using ✓ symbol in the box provided the hydration status of mucous membranes, skin turgor and indicate if skin is dry or diaphoretic.

**Fontanelles:** Indicate using  $\checkmark$  symbol in the box provided if fontanelles are closed, soft/flat, depressed, full or bulging. The anterior fontanel closes by approximately 18 months, and the posterior fontanel closes by approximately 8 weeks of age. 8 Indicate using  $\checkmark$  symbol in the N/A box if not applicable due to child's age.

**Edema:** Indicate using ✓ symbol in the box provided if central or peripheral edema is present.

**Apical Pulse:** Indicate using  $\checkmark$  symbol in the box provided if the apical pulse is regular or irregular and if a murmur is present. Record any heart sounds heard on auscultation on the line provided.

**Pulses:** Indicate using ✓ symbol in the box provided if central or peripheral pulses are normal for left and right. For variances, indicate Nurses Notes (NN) in the box provided and document variances in the Nurses Notes section.

- a) **Central pulses:** (e.g., carotid, axillary, brachial, femoral).
- b) **Peripheral pulses:** (e.g., radial, dorsalis pedis, posterior tibial).

Effective date: 13/05/2025 Page 11 of 19







Indicate using ✓ symbol in the NN box provided and document:

- a) Continuous *cardiorespiratory monitoring* includes heart rate, respiratory rate, and SpO<sub>2</sub>.
- b) Continuous ECG monitoring provides monitoring of heart rate and rhythm disturbances. Attach the appropriate monitor rhythm strip in the NN and record the lead interpretation, including rhythm impression, heart rate, PR interval, QRS interval, and QT interval. Note: Continuous ECG monitoring may be done simultaneously with continuous cardiorespiratory monitoring.

#### **Neurological Documentation**

**Response:** Indicate using ✓ symbol in the box provided the child's neurological response. 16

- a) <u>Alert:</u> when the child is awake, active, and appropriately responsive to caregivers and external stimuli based on the child's age and/or developmental level.
- b) Verbal: when the child responds only to voice.
- c) **Painful:** when the child responds only to a painful/pressure stimulus.
- d) <u>Unresponsive:</u> when the child does not respond to any stimulus.

**Tone:** Indicate using ✓ symbol in the box provided the child's tone. <sup>16</sup>

- a) **Normal:** muscle tone results in mild, consistent resistance throughout the entire range of motion (ROM).
- b) <u>Hypertonic:</u> muscle\_tone results in increased muscle tone (hypertonicity) that causes significant resistance to any sudden joint movement.
- c) <u>Hypotonic:</u> muscle tone is reduced muscle tone (hypotonicity) that allows movement without resistance, making the muscle feel flabby.

#### Integument Documentation

Indicate using  $\checkmark$  symbol in the box provided if the child's skin is clear or if there is any bruising, petechiae, rash or jaundice. Record the location of these findings on the line provided.

Mucous Membranes: Indicate using ✓ symbol in the box provided if the child's mucous membranes are pink, intact or if there is presence of lesions. Indicate if stomatitis and mucositis are present and record grade on the line provided as per your health authority grading guidelines.

**Umbilicus:** Indicate using  $\checkmark$  symbol in the box provided if the umbilicus is clean and/or dry. If not applicable (N/A) due to child's age, check the N/A box.

**Phototherapy:** Indicate the type of phototherapy used and irradiance level as per your health authority guidelines on the line provided. Record irradiance level in microwatts per square centimetre per nanometre that a light source delivers ( $\mu$ W/cm²/nm). If not applicable due to patient age, check the N/A box.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 12 of 19







**Dressings:** Indicate the site where the dressing is located on the line provided. Indicate using ✓ symbol in the box provided if the dressing is dry and intact. Indicate using ✓ symbol in the box provided if a Vacuum Assisted Closure (VAC) dressing is present. Indicate the level of suction needed on the line provided in millimeters of mercury (mmHG). Provide additional details in the NN and/or according to your health authority guidelines (e.g., VAC continuous or intermittent, wound assessments, etc.), if applicable.

**Drain:** Indicate using  $\checkmark$  symbol in the box provided the location and type of drain present. Indicate using  $\checkmark$  symbol in the box provided the type of drainage present (e.g., sanguinous, serosanguinous, fresh, serous and/or purulent).

**Braden QD:**<sup>17</sup> Assess and indicate the risk of skin breakdown using the Braden QD scale or according to your health authority's guidelines. Patients are scored on each of the seven subscales, then the scores are summed. Total scores greater than or equal to thirteen identify patients at risk for hospital-acquired pressure injury.

The seven subscales are:

- 1) Mobility: ability to independently change and control body position.
- Sensory Perception: ability to respond meaningfully in a <u>developmentally</u> appropriate was to pressure-related discomfort.
- 3) <u>Friction and Shear:</u> are evaluated during assessment. Friction occurs when skin moves against support surfaces. Shear occurs when skin and adjacent bony surface slide across one another.
- 4) <u>Nutrition:</u> measured by a u<u>sual</u> diet for age—assess pattern over the most recent 3 consecutive days.
- 5) **Tissue Perfusion and Oxygenation:** based on age.
- 6) <u>Number of medical devices:</u> number of therapeutic devices attached to or transversing the patient's skin or mucous membrane.
- 7) Repositionability/Skin protection: ability for medical devices to be repositioned or skin under each device protected.

See Appendix A for Braden QD Scale table.

If any risks are identified for non-accidental/maltreatment as outlined in the <u>BC PEWS ED</u> <u>Instructions for using the Pediatric Emergency Nursing Documentation Record</u>, document assessment findings in the NN.

# **Gastrointestinal Documentation**

**Abdomen:** Indicate using  $\checkmark$  symbol in the box provided your abdominal assessment findings (e.g., flat, rounded, distended, shiny). Indicate on the line provided the location of any surgical or ostomy sites. Indicate bowel sounds and their location using the  $\checkmark$  symbol in the boxes provided. Indicate any tenderness or pain present on the line provided. Indicate using  $\checkmark$  symbol in the boxes to record findings when palpating the abdomen; if findings other than 'soft' are noted, provide additional details in the NN.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 13 of 19







**Bowels:** Record the last bowel movement (BM) and describe any changes in stool as per your health authority guidelines (e.g., stool chart). Indicate using  $\checkmark$  symbol in the box provided if flatus is present.

#### **Genitourinary Documentation**

**Urinary Elimination:** Indicate using ✓ symbol in the box provided your genitourinary assessment findings.

**Urine:** Indicate using  $\checkmark$  symbol in the box provided if the urine is clear or cloudy. Check dilute when urine is light yellow and check concentrated when urine is dark yellow, and/or amber in color. Indicate using  $\checkmark$  symbol in the box provided if any burning, urgency, increased frequency, or hematuria is present.

**Reproductive:** Indicate using ✓ symbol in the box provided if menses is present and date of last menstrual period (LMP) on the line provided.

#### **Nutrition Documentation**

Indicate using  $\checkmark$  symbol in the box provided the child's nutrition status (e.g., NPO, oral ad lib, breast/chest feeding, bottle feeding etc.). If applicable, record child's meal plan on the line provided. Indicate using  $\checkmark$  symbol in the box provided if a diabetes record is utilized and follow documentation as per your health authority guidelines.

**Tube Feeding:** Indicate using  $\checkmark$  symbol in the box provided if the child is receiving continuous, intermittent or bolus tube feeds. If tube feeds are intermittent, indicate the frequency in hours on the line provided.

**Gastric Tube:** Indicate using  $\checkmark$  symbol in the box provided if a gastric tube is present. Indicate location, tube type, connected to straight drainage, if tube is clamped, and/or if tube is open. Record length of gastric tube in cm and verified pH value on the line provided. If gastric tube is connected to suction, indicate using  $\checkmark$  symbol in the box provided if continuous or intermittent suction. Record level of suction in mmHG on the line provided.

#### Musculoskeletal Documentation

**Gait:** Indicate using  $\checkmark$  symbol in the box provided if ambulating independently, and if gait is steady or unsteady. Indicate using  $\checkmark$  symbol in the box provided if child is on bedrest.

**Devices:** Indicate using  $\checkmark$  symbol in the box provided if any devices are used to support gait or mobility (e.g., wheelchair, crutches, traction, cast, splint, brace).

#### **Quality Checks Documentation**

Indicate using  $\checkmark$  symbol in the boxes provided if the listed quality checks have been completed. Record falls risk score on the line provided, based on your health authority falls risk assessment scoring tool. If no screening tool is utilized, indicate using  $\checkmark$  symbol in the box provided and document assessment findings in NN.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025 Page 14 of 19







#### Mental Health Documentation

Indicate using  $\checkmark$  symbol in the provided boxes to confirm that the Mental Health Act Forms have been reviewed for accuracy, including verification of dates (and expiry dates), required signatures, and that the Consent for Treatment form (Form 5) includes a properly completed description or treatment plan.

Record the child's self-assessed mood on the designated line. This question also serves to evaluate the child's insight. For instance, if the child rates their mood as 'excited' or '10/10', but exhibits signs of sadness and lethargy, it may indicate a lack of insight.

**Risks:** Indicate using ✓ symbol in the box provided if any mental health, substance, suicidal, or homicidal risks have been identified.

Mental Health Plan: If risks are identified, indicate using ✓ symbol if any validated screening tools are completed as per your health authority standards (e.g., HEARTSMAP, CRAFFT, ABAS etc.).

Indicate using  $\checkmark$  symbol if a safety/risk mitigation plan is initiated as per your health authority guidelines. If risks are identified develop a plan of care and observation level as per your health authority guidelines. If applicable, record observation level (e.g., constant, close, frequent etc.) on the line provided.

Use the additional line at the bottom of the mental health documentation section to capture any other assessment findings or mental health concerns (e.g., developing sense of self, altered self-identity, identity concerns, evolving self-identity, exploring personal identity, family unit concerns, circle of care concerns etc.).

#### Nurses Notes (page 6)

Record in the NN section any assessment findings or changes noted during shift in greater detail. Record time of entry and use variance charting including data, action and response (DAR) or problem, intervention, evaluation (PIE) formats. If additional space is required to document your Nurses Notes, please utilize the nursing note form used in your health authority. Attach printed rhythm strip to narrative notes for patients on continuous cardiorespiratory, electrocardiogram (ECG), or telemetry monitoring. Record printed name, signature, and initials in space provided. Indicate additional documentation completed on specific health authority forms (e.g., Neurovascular Assessment Record, Violence Risk Screening, and Personal Safety Care Plans).

Effective date: 13/05/2025 Page 15 of 19







#### **Definitions**

**BC Pediatric Early Warning System (BC PEWS):** is used to refer to the locally adapted system used in BC. BC Pediatric Early Warning System for use in Emergency Departments (BC PEWS ED) is used to reference the locally adapted system used in Emergency Departments in BC.

**Continuous Cardiorespiratory monitoring:** includes heart rate, respiratory rate, and SpO2 for enhanced assessment, without an expectation of cardiac rhythm interpretation.

**Continuous ECG monitoring:** is ECG monitoring that provides monitoring of heart rate and rhythm disturbances. May be done simultaneously with continuous cardiorespiratory monitoring.

**Fraction of inspired oxygen (FiO2):** is the concentration of oxygen in the gas mixture. The gas mixture at room air has a fraction of inspired oxygen of 21%, meaning that the concentration of oxygen at room air is 21%. <sup>18</sup>

**Pediatric Early Warning System (PEWS) Score:** refers to relevant patient assessment findings for cardiovascular, respiratory, behavioural parameters as well as persistent vomiting following surgery and use of bronchodilators every 20 minutes are collected, documented, and summated into a score. The score can be used to identify patient physical deterioration at a single point in time or through trend monitoring, to optimize chances for early intervention.

**Pediatric Patient:** in emergency departments (EDs) and health authority-funded health centres: children up to their 17th birthday (16 years + 364 days); and in inpatient settings: children up to their 17th birthday (16 years + 364 days); and for children receiving ongoing care up to their 19th birthday (18 years + 364 days).

Effective date: 13/05/2025 Page 16 of 19





# **Appendix A - Braden QD Scale**

|   |  |  |  | Score |
|---|--|--|--|-------|
| Intensity and duration of   | pressure   |  |  |       |
| Mobility<br>The ability to independently<br>change and control body<br>position.  | O. No limitation:<br>Makes major and frequent<br>changes in body or extremity<br>position independently  | 1. Limited: Makes slight and infrequent changes in body or extremity position independently. OR unable to reposition self independently (includes infants too young to roll over).                   | position   |       |
| Sensory Perception The ability to respond diminished meaningfully, in developmentally appropriate way to pressure- related discomfort                       | O. No impairment:<br>Responsive and has no<br>sensory deficits that limit<br>ability to feel or communicate<br>discomfort.   | 1. Limited: Cannot always communicate pressure-related discomfort OR has some sensory deficits that limit ability to feel pressure-related discomfort  | 2. Completely limited: Unresponsive due to diminished level of consciousness or sedation OR sensory deficits limit ability to feel pressure-related discomfort over most of body surface.  |       |
| Tolerance of the skin and sup   | pporting structure   |  |  |       |
| Friction and Shear  Friction: occurs when skin moves against support surfaces.  Shear: occurs when skin and adjacent bony surface slide across one another. | O. No problem: Has sufficient strength to completely lift self up during a move. Maintains good body position in bed/chair at all times. Able to completely lift patient during a position change. | 1. Potential problem:<br>Requires some assistance in<br>moving. Occasionally slides<br>down in bed/chair, requiring<br>repositioning. During<br>repositioning, skin often<br>slides against surface. | 2. Problem: Requires full assistance in moving. Frequently slides down and requires repositioning. Complete lifting without skin sliding against surface is impossible OR spasticity, contractures, itching, or agitation leads to almost constant friction. |       |
| Nutrition Usual diet for age—assess pattern over the most recent 3 consecutive days.  | O. Adequate: Diet for age providing adequate calories and protein to support metabolism and growth.  | 1. Limited: Diet for age providing inadequate calories OR inadequate protein to support metabolism and growth OR receiving supplemental nutrition any part of the day.                               | 2. Poor: Diet for age providing inadequate calories and protein to support metabolism and growth.  |       |
| Tissue Perfusion and<br>Oxygenation   | O. Adequate:<br>Normotensive for age, and<br>oxygen saturation ≥95%,<br>and normal hemoglobin, and<br>capillary refill ≤2 seconds.   | 1. Potential problem:<br>Normotensive for age, with<br>oxygen saturation <95%, OR<br>hemoglobin <10 g/dl, OR<br>capillary refill >2 seconds.   | 2. Compromised:<br>Hypotensive for age OR<br>hemodynamically unstable<br>with position changes.  |       |
| Medical Devices   |  |  |  |       |
| Score 1 point for each medical device* up to 8 (score 8 points maximum)   |  |  |  |       |
| Repositionability/<br>Skin Protection   | 0. No medical  | 1. Potential problem:<br>All medical devices can<br>be repositioned OR the<br>skin under each device is<br>protected.  | 2. Problem: Any one or more medical device(s) cannot be repositioned OR the skin under each device is not protected.   |       |
|   |  | <b>-</b> .   | al (≥13 considered at risk)  |       |

Patients are scored on each of the 7 subscales. The subscale scores are then summed. Total scores ≥13 identify patients at risk for Hospital-acquired pressure injury. Patient risk is assessed within 24 hours of hospital admission and repeated with changes in patient condition. Interventions to manage patient risk are directed to the subscales scored ≥1.

This material has been prepared by Child Health BC (CHBC) as guidance in the provision of care to pediatric patients in British Columbia. Please consult your health authority leaders for clarification on the adoption and use of this guidance within your local context. The content does not constitute and is not in substitution of professional medical advice. CHBC as part of Provincial Health Services Authority (PHSA) assumes no liability arising from use or reliance on this document. This document is protected by copyright and may only be reprinted in whole or in part with the prior written approval of CHBC. A printed copy of this document may not reflect the current electronic version.

Effective date: 13/05/2025

Page 17 of 19

<sup>\*</sup>Any diagnostic or therapeutic device that currently is attached to or traverses the patient's skin or mucous Adapted from Curley et al 2018





## References

- 1. National Emergency Nurses Association (2024). Canadian Triage and Acuity Scale (CTAS) participant manual Version 2024.4. https://nena.ca/our-courses/.
- 2. Anderson, C.C., Kapoor, S., and Mark, T.E. eds. Chapter 11: Fluids and electrolytes. In The Harriet Lane handbook: The Johns Hopkins Hospital (Elsevier), pp. 294–317.
- 3. Provincial Health Services Authority (2023). Point of Care Risk Assessment. https://picnet.ca/wp-content/uploads/Point-Of-Care-Risk-Assessment-Tool-2023-July-25-FINAL.pdf.
- 4. American Heart Association (2020). Pediatric Advanced Life Support Provider Manual.
- 5. American Heart Association (2015). Pediatric advanced life support (PALS), provider manual.
- 6. Weiner, D.L. (2024). Acute respiratory distress in children: Emergency evaluation and initial stabilization. UpToDate. https://www.uptodate.com/contents/acute-respiratory-distress-in-children-emergency-evaluation-and-initial-stabilization?sectionName=Physical%20examination&search=pediatric%20respiratory%20 distress&topicRef=6393&anchor=H23&source=see\_link#H23).
- 7. Otani, A., Iio, K., and Ihara, T. (2020). Tracheal Tugging. The Journal of Pediatrics, *218*, 255. https://doi.org/10.1016/j.jpeds.2019.10.080.
- 8. Emergency Nursing Association (2020). Emergency Nursing Pediatric Course (ENPC) Provider Manual 5th ed.
- 9. Whitten, C. Pediatric airway risks: inefficient mechanics of breathing. Airwayjedi.com. https://airwayjedi.com/2019/02/25/pediatric-airway-risks-inefficient-mechanics-ofbreathing/.
- 10. MedGen Intercostal retractions MedGen UID: 98415. National Library of Medicine. https://www.ncbi.nlm.nih.gov/medgen/98415.
- 11. McCollum, E.D., and Ginsburg, A.S. (2017). Outpatient Management of Children With World Health Organization Chest Indrawing Pneumonia: Implementation Risks and Proposed Solutions. Clinical Infectious Diseases *65*, 1560–1564. https://doi.org/10.1093/cid/cix543.
- 12. Cleveland Clinic Intercostal retractions. https://my.clevelandclinic.org/health/symptoms/intercostal-retractions.

Effective date: 13/05/2025 Page 18 of 19





- 13. Child Health BC (2024). Provincial Pediatric Asthma Management Guideline. https://shop.healthcarebc.ca/phsa/BCWH\_2/CW%20Campus%20Wide/C-0506-07-63037.pdf.
- 14. Zimmerman, B., and Williams, D. (2023). Lung Sounds. StatPearls. https://www.ncbi.nlm.nih.gov/books/NBK537253/.
- 15. Malone Mukwende, Tamony, P., and Turner, M. (2020). Mind the Gap: A handbook of clinical signs in Black and Brown skin. 7315648 Bytes. https://doi.org/10.24376/RD.SGUL.12769988.V1.
- 16. Elsevier Assessment: Musculoskeletal and Neurologic CE/NCPD. https://point-of-care.elsevierperformancemanager.com/skills/360/extended-text?skillid=GN 18 5&virtualname=phsa canada#scrollToTop).
- 17. Curley, M.A.Q., Hasbani, N.R., Quigley, S.M., Stellar, J.J., Pasek, T.A., Shelley, S.S., Kulik, L.A., Chamblee, T.B., Dilloway, M.A., Caillouette, C.N., et al. (2018). Predicting Pressure Injury Risk in Pediatric Patients: The Braden QD Scale. The Journal of Pediatrics *192*, 189-195.e2. https://doi.org/10.1016/j.jpeds.2017.09.045.
- 18. Peacock, A.J. (1998). ABC of oxygen: Oxygen at high altitude. BMJ *317*, 1063–1066. https://doi.org/10.1136/bmj.317.7165.1063.

Effective date: 13/05/2025 Page 19 of 19