BC PEWS ED Instructions for Using the Emergency Department Vital Sign Record

Purpose

The purpose of this document is to provide clear, standardized instructions for use of the British Columbia Pediatric Early Warning System (BC PEWS) Emergency Department (ED) Vital Sign Record. 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 Inpatient settings, please refer to Child Health BC Instructions for Using the BC PEWS Inpatient Flowsheet.

Site Applicability

The British Columbia Pediatric Early Warning System (BC PEWS) assessment and documentation guidelines are applicable to all areas where BC PEWS has been implemented. This practice applies to all nurses providing urgent/emergent care to pediatric patients in areas designated by the health authority. For more information please refer to the Child Health BC Provincial Pediatric Early Warning System Guideline.

Abbreviations

Below are the abbreviations used in this document and in the BC PEWS ED Vital Sign Record. 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.

ABBREVIATIONS			
°C	Degrees Celsius	mmHG	Millimeters of Mercury
$EtCO_2$	End Tidal Carbon Dioxide	mmol/L	Millimole per Litre
GCS	Glasgow Coma Scale	0_2	Oxygen
L	Litres	PRAM	Pediatric Respiratory Assessment Measure
MAP	Mean Arterial Pressure	Resp	Respiratory Rate

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).

Effective date: 10/July/2020
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Graphic Record (page 1)

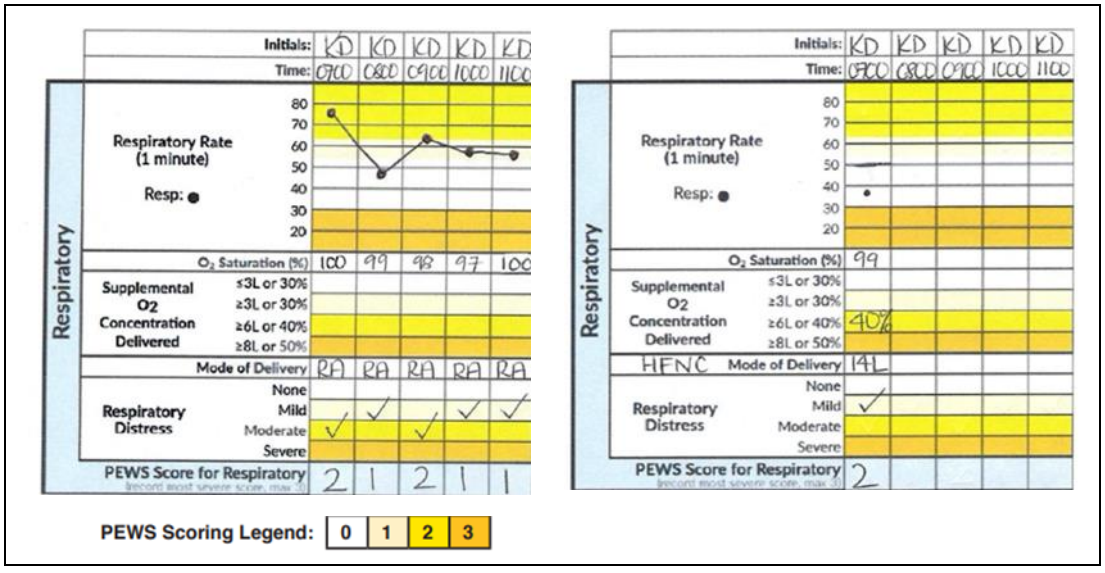
Recording in Respiratory Section

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_2): Record SpO_2 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 [fraction of inspired oxygen (FiO_2)] 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_2 delivered.



Respiratory Distress: Record level of respiratory distress using ✓symbol to indicate as per Canadian Triage and Acuity Scale (CTAS).

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 ˅ for systolic pressure and ^ 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:

$$\frac{\text{Systolic Pressure} + (2 \times \text{Diastolic Pressure})}{3}$$

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.

Recording in Behaviour Section

Indicate assessed patient behaviour using ✓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	maximum of 2
+ 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 ✓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 BC PEWS Escalation Aid for Inpatient & Emergency Settings. Consult and plan with team members to determine appropriate steps to escalation care based on the escalation aid and health authority/agency standards.

Document escalation actions taken to mitigate identified risk, the patient's response to interventions, and additional actions in the nurses note section of the Pediatric Emergency Nursing Assessment Record (PENAR) or the Pediatric Emergency Nursing Assessment- Treatment Record. Note If no action is being taken in response to the 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.

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).

Care and Neurological Assessment (page 2)

Care

Sepsis Screen: Record using a ✓symbol to indicate when a sepsis screen was completed. *Please use the sepsis screening tool identified by your health authority/agency.* Use NN to indicate if there is further documentation in the nursing notes section of the PENAR.

Sepsis screening is recommended if:

- The patient's heart rate is in the critical PEWS score of 3 or
- The PEWS score increases by 2 or
- The patient's temperature is above 38°C or less than 36°C

Pain Score and Location: 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 document NN and record observations in the nurses' notes section of the PENAR.

If patient is on a continuous opioid infusion, epidural analgesia or PCA, refer to your health authority/agency specific documentation guidelines.

Arousal Score: Record the patient's level of arousal score following the guidelines used in your health authority/agency.

PRAM: When caring for patients with Asthma calculate and record PRAM scores per the guidelines used in your health authority/agency.

End Tidal Carbon Dioxide (EtCO2): Record the End Tidal Carbon Dioxide (EtCO2 or capnography) reading ____mmHg per the guidelines used in your health authority/agency.

Glucometer: Record bedside numeric glucose value in ____mmol/L per the guidelines used in your health authority/agency.

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.

Record full signature and initials in space provided.

Related Documents

- Child Health BC Provincial Pediatric Early Warning System Guideline
- BC PEWS ED Instructions for Using the Pediatric Emergency Nursing Documentation Records

Patient Documentation

BC PEWS can be used with electronic or paper-based charting as determined by your health authority. Paper documentation forms are available through your health authority.

- BC PEWS ED Pediatric Emergency Nursing Assessment Record
- BC PEWS ED Pediatric Emergency Nursing Assessment Record - Treatment
- BC PEWS ED Vital Sign Record: 0-3 Months
- BC PEWS ED Vital Sign Record: 4 - 11 Months
- BC PEWS ED Vital Sign Record: 1 - 3 Years
- BC PEWS ED Vital Sign Record: 4 - 6 Years
- BC PEWS ED Vital Sign Record: 7 - 11 Years
- BC PEWS ED Vital Sign Record: 12 + Years

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.

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%.

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).

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