24-HOUR PEDIATRIC INTENSIVE CARE UNIT (PICU) FLOWSHEET GUIDELINES

DEFINITION

The 24-hour pediatric intensive care unit flow sheet is used in PICU specifically designed to continuously record patient’s vital parameters and intake/output hourly in order to monitor the progression or regression of condition.

It includes vital signs, hemodynamic parameters, neurologic status, medications, ventilator setup, laboratory and diagnostic procedures, special notations and 24-hour input and output balance.

GENERAL GUIDELINES

1. Only PHC RN’s shall be authorized to use the 24-hour flow sheet.

2. All patients admitted at PICU shall make use of the 24-hour flow sheet.

3. This flow sheet shall become a part of the patient’s chart and consider a legal document.

4. The focus charting on the interdisciplinary form shall be accomplished together with the 24-hour flow sheet.

5. The night shift or admitting nurse shall prepare the 24-hour flow sheet to be used the following day.

6. If the patient is for transfer to non-critical care unit, the assigned bedside nurse shall change the flow sheet to regular forms, i.e. TPR, I and O, IV sheet, etc.

7. Any eventualities regarding patient’s conditions shall be written at the back of the flow sheet.

8. Other regular/routine entries not found in the flow chart shall be written in the regular forms, e.g. standing order sheet, IV sheet, progress notes, I and O sheet, diabetic sheet.

9. Timing: MORNING SHIFT shall start at 8:00 am - 7:00 pm and NIGHT SHIFT shall cover 8:00 pm - 7:00 am the following day.

10. Color Coding: It shall be utilized throughout the 24-hour period. The red ink from 12:00 am - 7:00 am. Black ink from 8:00 am - 11:00 pm.
SPECIFIC GUIDELINES

A. Patient's Data:

Name: Bed Letter: Date:
Age/Sex: Admitted From: Hospital Day:
Address: Date and Time of Admission: ICU Day:
Height: (in cm) Date and Time of Transfer: Category:
Weight: (in kg) Diagnosis: Hospital No.:
Ideal Body Weight: Operation and Date: Nurse: A.M.
BSA: mm² Allergies: Nurse: P.M.
Attending Physician: Diet: Referrals:

Name
Write the name of the patient; starting with the family name, first name, and middle name in red ink.

Age/Sex
It refers to the number of days of life for neonates, of months of life for infants, and of years of life for older patients; write the gender either F or M.

Address
State the complete house address of the patient.

Height and Weight
It shall be written in cm, and kg respectively.

Ideal Body Weight
Compute for the IBW of the patient and write it in kg.

BSA
Compute for the BSA and express it in sq. mm.
Formula for IBW and BSA:

**BSA**
- 0-5 kg = wt. x 0.05 + 0.05
- 5-10 kg = wt. + 0.04 + 0.1
- >100 kg - 20 kg = wt. x 0.03 + 0.2
- > 20 kg = wt. x 0.04 + 0.4

**IBW**
- More than 1 year = age in years x 2 + 8
- Less than 6 mos. = age in mos. x 600 + 3000
- More than 6 mos. = age in mos. x 500 x 3000

**Bed Letter**
Identify the letter of the bed presently occupied by the patient.

**Date and Time of Admission**
It refers to the date and time admitted in our institution.

**Admitted From**
It refers to those coming from ER, Doctor’s Clinic, referrals from other hospital in case of direct admissions or to patient coming from other units in the hospital (i.e. CW, 3C, RR, etc.) to PICU.

**Diagnosis**
It refers to present medical diagnosis. You may indicate previous surgical intervention if appropriate.

**Operation and Date**
It refers to the complete surgical interventions and when it was done.

**Allergies**
Indicate any hypersensitivity to food, medicine, and others. Write NKA (No Known Allergies) if not known.
Admitting Physician
It refers to the main attending physician if pay patients and to the service consultant of the month for service patients.

Category
It indicates whether patient is P-pay, S-service, PSS-pending social service, SPD-surgical package deal and Philhealth Z-benefit.

Diet
If the patient eats orally, diet shall be ordered and shall be written as prescribed by the doctor. If the patient is on NPO, write NPO on the space provided. If the patient is on NGT/Tubal feedings, write the calories/day, amount dilution and frequency of feeding.

Date
The date refers to the day the flow sheet is used (i.e. September 10, 2010)

Hospital Day
The date refers to the length of stay in the hospital since admission.

ICU Day
It refers to the length of stay in PICU.

Nurse A.M.
It refers to the name of the nurse who rendered nursing care to the patient from 7:00 am to 7:00 pm.

Nurse P.M.
It refers to the name of the nurse who rendered nursing care to the patient from 7:00 pm to 7:00 am the following day.
B. Vital Signs Monitoring

It includes temperature (temp.), heart rate (HR), respiratory rate (RR), and blood pressure (BP). Vital signs are monitored hourly. It requires every 15 minutes or every 30 minutes monitoring. The column shall be divided equally.

C. Hemodynamic Monitoring

It includes rhythm, arterial line (A-line) and central venous pressure (CVP). All data entered shall be numerical figure except in the column for rhythms. Rhythm shall be written in universal abbreviations.

Examples:

- NSR- Normal Sinus Rhythm
- A-Fib- Atrial Fibrillation
- A- Flutter- Atrial Flutter
- Paced- Paced Beats
- PAC - Premature Atrial Contraction
- CHB – Complete Heart Block
- PVC- premature ventricular contraction -Indicate whether in bigeminy, trigeminy, quadrigeminy, couplet, etc.

Monitoring must be done every hour. Frequency may be increased if the situation arises.

Arterial line (A-Line)

Write the actual numerical figures that appear in the cardiac monitor after it has been calibrated accurately.

Central Venous Pressure Line (CVP)

Write the actual numerical figure in cmH2O
D. Special Monitoring

HEMOGLOUCOTEST (HGT)
Results shall be written in mg/dl in the appropriate column. Indicate also the frequency of HGT monitoring in the spaces provided e.g. 110 mg/dl.

OXYGEN Saturation
It is written in percentage (%). It refers to the oxygen saturation of the patient under continuous pulse oximetry monitoring e.g. 82 %.

URINE SPECIFIC GRAVITY
It refers to the urine specific gravity result yielded from urinalysis e.g. 1.010

ABDOMINAL GIRTH
It shall be written in centimeters (cm) e.g. 28 cm.

OTHERS
It refers to any special monitoring that is not indicated in the entry column. (E.g. head or chest circumference)

E. IV/ TPN FLUIDS
All central and drug supports either given peripherally or via central lines be documented on the appropriate column. Main IV Fluids given peripherally or through central lines shall be written in the first column followed by side drips. Main IV fluids with or without additives, their site, amount, and flow rate shall be documented. or IV drug supports, indicate the site, number of side drip, syringe ordinal number, concentration of drug, dose and flow rate shall be written.

Example: RAML₂B₄ D5 0.3 NaCl 500 x 5 cc/hr
LASD₂ Sy₃Dobutamine (5:5000) x 3.6 cc/hr

The remaining amount of IVF and drug supports shall be written on the opposite side of the flow rate of every IVF, the amount of fluid in the soluset shall also be indicated.
Example: LAML₁B₃ D5 IMB 500 x 20 cc/hr (100+120)
    RASD₃Sy₃Dopamine (5:5000) x 3.2 cc/hr (44)

If the main IV fluid is consumed and needs follow-up within the shift, indicate the number type,
amount type, name of IVF and flow rate in the appropriate space.
Example: LAML₁B₃ D5 IMB 500 x 20 cc/hr (100 + 120)
    TFLAML₁B₄ D5 0.3 NaCl 500 x 10 cc/hr

For drug supports and side drips, any change in the dose and flow rate shall be properly
documented in the space provided.
Example: SD₃Sy₃Dopamine (2:1600) x 3.2 cc/hr (44) decrease 2 mcg/kg/min at 1.9 cc/ hr (38)

F. Blood and Other Blood Products

Indicate the date and time started and the date and time consumed blood once transfusion is done.
Write the bag number, type of blood product, amount, blood type, RH type and flow rate.

G. PRN/ STAT Medications

STAT
Write the date and time ordered, the name of drug, dose, route, date and time of administration, and
RN signature in the space provided.
Drugs used during CODE 7 – use official Medical Emergency Event Data Form (MET Form).

PRN
Write the date and time ordered, date and time administered, the name of the drug dose, route of
administration, frequency and RN signature in the appropriate space provided.
Example: 08-10-10 2:00 pm Morphine Sulfate 5mg IV q 4 hrs. 08-10-10 6 p.m. _____, R.N.
The name of the drug, dose, route, frequency, date and time ordered shall be entered by nurse who carried out the order, in the space provided. The night shift nurse shall recopy the order for the next day flow sheet.

Only the date and time administered and RN signature should appear in the column provided in case the PRN medication is given to the patient.

**H. Nursing Care**

**a. IV site and Patency**

Indicate IV site/sites on the space provided at the left column. Put a check (/) if the IV is intact and a cross (x) if not. IV site shall be checked hourly.

**b. Suctioning**

Put a check (/) on the column which corresponds to the hour suctioning was done. Notations regarding the pulmonary status of the patient shall be written. Breath sounds shall be described as clear, crackles, wheezes including the lung fields involved. Describe the color, consistency and amount of tracheobronchial and nasopharyngeal secretions obtained during the suctioning and oral expectorations of the patient.

Example:

With coarse crackles on both lung fields upon auscultation, thick to loose, yellowish to greenish, moderate to plenty secretion from ET and scanty, loose whitish secretions from mouth upon suctioning.

**Oral/ ET and Tracheostomy Care**

Put a check (/) on the column whenever oral, ET, and Tracheostomy care were done to the patient. Any observations regarding the integrity of oral mucous membrane and trachea stoma shall be documented.
Back Care and Turning

Put a check (/) on the time column whenever back was cared or turning was done to the patient. Indicate the frequency of turning schedule on the left column: turning every 2 hours or turning every hour. Indicate the position assumed by the patient i.e. R- right side, L- left side, S- supine. Skin condition shall be described.

Example:
Intact skin, good turgor, dry, with bed sore, hematoma formation, bruise, abrasion, cyanotic, gangrenous, pale, jaundice, reddish, etc.

Cord Care

Put a check (/) on the time column whenever cord care was done. Describe the physical characteristics of the cord.

Wound Care

Describe the wound discharge as to quantity, color, consistency, size (small, medium, large) other wound dehiscence, wound irritation.

Bed Bath

Put a check on the time column whenever bed bath is rendered to the patient.

Foley Catheter Care

Describe the GUT status of the patient. Write urine observations as to color, whether concentrated, presence of pus or blood on it. If voiding freely, indicate the amount of appropriate time and column. If IFC was discontinued or removed, write D/C and time in the space provided after which proceed monitoring to check the patient if freely voided.

Perineal Care

Describe any observations noticed during perineal care. Presence of perineal rashes should be documented.
CVP Care

Indicate presence of backflow, good flow, presence of good tracing on the cardiac monitor.

A-line Care

Note down existence of backflow, good flow, occurrence of good tracing in the cardiac monitor.

IV Site Care

Note for presence of phlebitis, burns, swelling on the IV site.

I. Contraptions

Indicate when a particular contraption is inserted and the date when it has to be changed.

Write ET size used and the ET level in the cm, the level by which it shall be maintained, and indicate the suction level.

For pacemaker settings (PPI/TPI), write the MA/Output, rate and sensitivity in the appropriate column.

Indicate the date the battery is installed and the date when it has to be changed.

J. Ventilator Set-up

Ordered settings (Fio2, RR, PIP, PEEP, FR and dead space) and type of ventilator (Sechrist, Newport, Galileo) should be indicated in the space provided as ordered.

Changes should be written on specified time.

If therapy has been discontinued, it should be written as D/C. Once the patient is intubated or extubated, the word extubated or intubated should be indicated, and the exact time of the procedure on the appropriate space.

NEBULIZATION – indicate the inhalation solution, dose and frequency of administration.
K. **OXYGEN THERAPY**

Type and mode of administration should be written as follows:

- NC  Nasal Cannula
- NCath  Nasal Catheter
- FM  Face Mask
- RA  Room Air
- TP  T-Piece (on weaning)

Flow rate should be written as liters/minute (L/min)

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L. **LABORATORY RESULTS**

Only the results should be entered in the appropriate time and column.

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M. **DIAGNOSTIC PROCEDURES**

Diagnostic procedures ordered should be reflected in the space provided and the corresponding time ordered.

Put a check, date and time before the diagnostic procedure once the procedure was performed.

Example: 2/1/97 9:10 am 2/2/97 2D ECHO w/ CFDS R

Indicate whether the procedure was deferred or for follow-up, if it is charged or still for charging, on the space for remarks (R).

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N. **SPECIAL NOTATIONS**

This refers to medical and surgical plans and/or management, and other pertinent information of the patient that will be endorsed to co-staffs, and other health care providers.

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O. **NURSES’ PROGRESS NOTES**

This is divided into two columns:

1. **1st column** is for the AM shift nurse.
2. **2nd column** is for the PM shift nurse.

Any pertinent observations or abnormal manifestations, treatment and nursing interventions that are not reflected in the flow chart should be documented with the corresponding time. The nurse should affix her full family name in the space provided at the end of the shift.
P. DIET/TOTAL FLUID REQUIREMENT (TFR)

TOTAL FLUID REQUIREMENT (TFR)

Write the TFR/day of the patient as prescribed by the doctor. Indicate whether it is oral TFR/day alone or if it includes intravenous infusions. Show the breakdown of TFR per shift.

Example:

1. TFR = 600cc/day (oral)
   AM shift = 400cc
   PM shift = 200cc

2. TFR = 1,000cc/day (oral and IV)

<table>
<thead>
<tr>
<th>SHIFT</th>
<th>ORAL/NGT</th>
<th>IV</th>
<th>SUPPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-3</td>
<td>240</td>
<td>80</td>
<td>32 40</td>
</tr>
<tr>
<td>3-11</td>
<td>200</td>
<td>80</td>
<td>32 40</td>
</tr>
<tr>
<td>11-7</td>
<td>104</td>
<td>80</td>
<td>32 40</td>
</tr>
</tbody>
</table>

Q. 24 HOUR INTAKE AND OUTPUT

It is divided into 2 columns, the intake and output column.

INTAKE

It includes oral, NGT/Tubal feeding, IV, drug supports, A-line, CVP and others. Oral intake should include all liquids taken orally. All IV’s given, boluses/fast drips, drug supports, and hemodynamic flushing solutions and their amount in numerical values should be written in the appropriate column. Others refer to peritoneal dialysis or cystoclysis. Sub total refers to the present sub-total intake incurred for an hour. Total refers to the present sub-total, added to the previous sub-total.
OUTPUT

It includes all urine, NGT drainage, chest tube/wound drainage and others. Urine includes any output coming from normally voided urine, nephrostomy and cystostomy tubes. NGT drainage refers to gastric secretions/aspirates. Chest tube/wound drainage refers to chest tubes/wound discharges. Others refer to peritoneal dialysis/ or cystoclysis. Subtotal refers to the total output from all sources in a period of one hour. Total refers to the present hour subtotal added to the previous subtotal.

Cumulative balance refers to the total intake minus the total output. It should be done hourly. If the fluid intake is greater than the output, affix a positive (+) sign to the volume difference, for example + 300cc. If the output is greater than the intake, affix a negative (-) sign to the amount of volume difference.

R. PREVIOUS 24 HOUR INTAKE AND OUTPUT

It refers to the previous intake and output and cumulative balance for the last 24 hours. The 24 hours intake and output shall be documented in the regular input and output sheet by the outgoing night duty nurse.