GUIDELINE

TITLE: **COMPLETION OF THE NEUROVITAL FLOWSHEET**

PURPOSE: To outline the steps for completing documentation using the Neurovital flowsheet. This document is to be used during downtime and/or related conditions.

NATURE OF FORM: Permanent

TARGETED PATIENT POPULATION: All patients requiring frequent neurovital signs as ordered by physician or nursing assessment indicates change in patient condition.

PERSON RESPONSIBLE: RN

PLACEMENT: In the Nurses' Notes section of the chart.

INSTRUCTIONS:

1. The frequency of utilization of this assessment flowsheet will be determined by each individual patient situation. The date and time of assessment should be noted in each column.

2. **The Glasgow Coma Scale**: This scale has three components, eye opening, verbal response and motor response.

   A. To evaluate eye opening: The nurse should observe silently and record a score of
      4 = if the patient opens this/her eyes spontaneously
      3 = if the patient opens his/her eyes in response to verbal stimulus
      2 = if the patient opens his/her eyes in response to painful stimulus
      1 = there is no eye opening response
      C = the eyes are unable to be assessed because they are closed due to swelling

   B. To evaluate the patient's verbal abilities, the nurse should test the patient's orientation to time, place and person. The nurse should also try a variety of questions to establish this baseline using information the patient knows/would be able to answer. Record the score accordingly.
      5 = if the patient if oriented
      4 = if the patient is disoriented
      3 = if the patient uses inappropriate words, names objects inappropriately
      2 = If the patient has incomprehensible sounds, speech is slurred and too difficult to understand sounds
      1 = if the patient has no response. Place a "T" in this area also if the patient has a tracheotomy or endotracheal tube and therefore is not able to a verbal response.

   C. To evaluate motor response, usually recorded with best arm response, the nurse should observe and record a score of:
      6 = if the patient can follow all commands
      5 = if the patient can localize pain by moving the arm or hand to the area that is being stimulated and attempts to remove the painful source.
      4 = if the patient withdraws from pain by the arm flexing at the elbow and attempts to pull away
      3 = if the patient show flexion (decorticate positioning) to pain
      2 = if the patient shows extension to pain by extending the arm at elbow and straightens and rotates the back of the hand towards the body (decerebrate positioning)
      1 = No motor response

   ** To evaluate patient's response to peripheral pain stimulus use nail bed pressure, trapezius pinch or pinching of the inner aspect of the arm.

   The three scores should be added together and recorded on the total score row, the highest being 15 and lowest of 3. Any significant changes in scale should be reported to physician.

3. **Pupil Reaction**: The pupils should be tested in dark environment. Each pupil should be tested separately for size and reaction. Cover the untested eye. Shine the light into the pupil, then withdraw the light and examine the Response. Record finding for each in the space provided. Record size in millimeters (mm) and reaction either brisk (rapid constriction), fixed (no constriction or dilation), sluggish (constriction occurs but more slowly than expected) for each. If pupils are unable to be assessed due to swelling, record a "C" for swollen closed. Use an "X" in the appropriate box if the pupil is not round.

4. **Motor Strength for extremities**: Record each extremity response
   A. Arm Strength will be assessed and documented as:
   Have the patient bend his arm at the elbow, and then raise his arm to shoulder level. While you push down on the patient arm ask the patient to resist your effort, record as the following:
      5 = Normal strength
      4 = Good strength (minimal weakness, can push against some resistance, but not full strength)
      3 = Fair strength against gravity and no resistance (moderate weakness, can lift extremity, but drops when touched)
      2 = Weak movement but not against gravity or resistance (severe weakness, able to drag extremity Across bed, no lifting)
      1 = Trace of muscle contraction in related muscle groups but no movement (flicker in an extremity muscle is noted)
      0 = No muscle contraction or movement (Flaccid, paralysis)

      The second assessment for arm strength will be checking for the pronator drift. This is a more sensitive evaluation of upper extremity strength. Instruct the patient to raise and extend arms out in front of them, with palms facing up, arm shoulder length, eyes closed. Check for unilateral arm drift within 30 seconds[1]. Record findings as follows:

      Positive test is: When patient's arm drifts downward
      When palms turn down
      Negative test is: The arms are held steady for at least 10 seconds

   B. Leg strength will be assessed in a similar manner. Ask the patient to raise each leg separately, once the leg is off the bed push on patient's leg and ask him/her to resist your effort. Document each leg response using the same scale as the arm.

   C. The second assessment for lower extremity strength is to ask the patient to planter flex and dorsiflex. Have the ball of each foot push down against the nurse's hands as to push away the resistance. Then pulling toes up, flex foot towards nose against nurse's hands. Document using the 0-5 scale as stated above.

      - Other neurologic parameters that are assessed will be documented in the Nurses' Notes.

5. **Vital Signs**: Record vital signs in appropriate boxes. Note any abnormalities of quality of pulse or respirations in the nurse's notes.

   Temperature: Elevated could indicate infection, extreme restlessness or seizure activity.
   Respirations: Chart rate and note any abnormalities of quality in nurses' notes such as, Cheyne-Stokes, usually seen with bilateral deep cerebral lesions or some cerebella lesions
   Hyperventilation: usually seen with lesions of the midbrain and upper pons
   Cluster breathing: usually seen with lesions of the lower pons or upper medulla

6. **Initials**: The initials of the nurse completing the assessment need to be recorded in the last row for each assessment time. A complete signature corresponding to the initials should be recorded below.

Reviewed: Nurse Practice Council, August 17, 2010

2-Hole 1/4 2 3/4 - 3-Hole 1/4 4 1/4

Date (1)																										
Hour																										
COMA SCALE	Eyes Open Closed by Swelling = C (2) (A)	Spontaneously	4																							
		To Speech	3																							
		To Pain	2																							
		None	1																							
	Verbal Response ET tube or Trach = T (B)	Oriented	5																							
		Confused	4																							
		Inappropriate Words	3																							
		Incomprehensible Sounds	2																							
		None	1																							
	Motor Response Usually record best arm response (C)	Obeys Commands	6																							
		Localizes pain	5																							
		Flexion - Withdrawl	4																							
		Flexion - Abnormal	3																							
		Extension	2																							
		None	1																							
	Total Score	3 - 15																								

EYES

PUPIL SIZE (mm) 2 3 4 5 6 7 8 9

Reaction: (S) Sluggish (F) Fixed B) Brisk (C) Swollen Closed (X) Not Round

		L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R
(3)	Size																								
	Reaction																								

MOTOR STRENGTH

(4)	Arms Record Left and Right Sides A.	Normal strength	5																							
		Good strength	4																							
		Fair Strength	3																							
		Weak Movement	2																							
		Trace	1																							
		No Muscle Movement	0																							
		Pronator Drift	+/-																							
	Legs B Record Left and Right Sides	Normal strength	5																							
		Good strength	4																							
		Fair Strength	3																							
		Weak Movement	2																							
		Trace	1																							
		No Muscle Movement	0																							
	Plantar Flex and Dorsiflex C	Normal strength	5																							
		Good strength	4																							
		Fair Strength	3																							
		Weak Movement	2																							
		Trace	1																							
		No Muscle Movement	0																							

VITALS																									
(5)	Temperature																								
	Pulse																								
	Blood Pressure																								
	Respirations																								
	O2 saturation																								
	Nurses' Initials																								

(6) Initials _____ / Signature _____ Initials _____ / Signature _____

Initials _____ / Signature _____ Initials _____ / Signature _____

PATIENT LABEL

Hackettstown Regional Medical Center

NEUROVITAL SIGN

H0010204

SAMPLE

10204 (2/09)

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