



Policies & Procedures

Title: **HEMODYNAMIC MONITORING  
CENTRAL VENOUS PRESSURE  
MONITORING**

I.D. Number: **1101**

Authorization:

- Tri-Site Critical Care Committee
- Tri-Hospital Nursing Practice Committee

Source: Critical Care Committee  
Cross Index:  
Date Effective: September 2013  
Scope: **Saskatoon City Hospital  
Royal University Hospital  
St. Paul's Hospital**

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**1. PURPOSE**

- 1.1 To minimize complications associated with invasive pressure lines.
- 1.2 To obtain accurate invasive pressure monitoring.

**2. POLICY**

<b>Staff who will perform this procedure</b>	Registered Nurses identified by their manager, will be certified in this Special Nursing Procedure to care for central venous pressure monitoring in accordance with the SHR policy.
<b>Physician's order required</b>	Yes
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>• All patients requiring invasive pressure lines will be cared for in targeted areas.</li> <li>• Attach pressure monitoring line to distal port of short-term central venous catheter.</li> <li>• Documents CVP readings q1h unless ordered otherwise.</li> <li>• All invasive pressure lines and flush solution changed every 96 hours.</li> <li>• Check amount of solution in bag and integrity of system every shift.</li> <li>• Obtain readings with patient no higher than 45 degree backrest elevation and 30 degree lateral rotation.</li> <li>• Zero pressure line(s) at the beginning of each shift, if the system is disrupted or if the validity of the measurements is suspect.</li> <li>• Ensure the transducer level is at the patient's phlebostatic axis.</li> </ul>
<b>Flush solutions</b>	<ul style="list-style-type: none"> <li>• ICU / OR / ER / PACU – Normal saline</li> <li>• Cardiology – 2 units Heparin / 1ml of normal saline</li> </ul>

<b>Alarm limits</b>	<ul style="list-style-type: none"> <li>• Monitor alarms limits should be kept so that alarms will sound when a change in patient status occurs.</li> <li>• Check alarm limits whenever zeroing pressure line, start of every shift, or change in patient condition.</li> </ul>
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### 3. PROCEDURE

- 3.1. Gather and prepare the necessary equipment according to Policy – Hemodynamic Monitoring – Setting up of Invasive Pressure Monitoring Lines #1033.
  - Primed pressure tubing
  - Transducer cable / module
  - Pressure bag
- 3.2. Ensure scale is set appropriately.
- 3.3. Level the transducer to the patient’s phlebostatic axis.
- 3.4. Attach the patient end of flush line directly to distal central venous catheter port.
- 3.5. Open stopcock to patient and observe for waveform on monitor.
- 3.6. Document:
  - IV solution on the IV Infusion Record (if applicable).
  - CVP readings on the vital signs record q1h.

### 4. REFERENCES

- BCCNP Cardiovascular Hemodynamics and pharmacology (Nursing 229) July 2012.
- Central venous Monitoring Standards of Nursing Care in CCTC. London Health Sciences Center. Accessed August 24, 2012  
[http://www.lhsc.on.ca/Health\\_Professionals/CCTC/standards/central.htm#8](http://www.lhsc.on.ca/Health_Professionals/CCTC/standards/central.htm#8)
- Morton, P. G. et al. (2013). Central Venous Pressure Monitoring. In: Critical Care Nursing: a Holistic Approach. 8th ed. Philadelphia: Lippincott, Williams, Wilkins. Pg. 302 – 303.
- Peterson, K. J. (2012). Measuring Central Venous Pressure With A Triple-Lumen Catheter. Critical Care Nurse. 32 (3). Pp. 62 – 64.
- Weigand, D. L., (ed.) (2011) Central Venous / Right Atrial Pressure Monitoring. In: AACN Procedure Manual for Critical Care. (6th ed). St. Louis: Elsevier Saunders. pp. 603 - 608.