Competency Verification Record (CVR)
UVA Health
TCVICU: Lumbar Drainage Device Post Thoracoabdominal Aortic Surgery - RN

Employee Name:__________________________________**Employee ID #:**___________________**Date**:___________________

Disclaimer: Competency Verification Records (CVR) are temporarily stored in the Department's competency filing system until completion has been recorded on a permanent competency form (e.g., OCA, ACR). The CVR requires a validator's signature.

Transfer of CVR to Permanent Record: With this record of a validated competency, the preceptor, Dept. NEC, manager, or their designee locates the matching competency statement on the Annual Competency Record (ACR), Orientation Competency Assessment (OCA) Regional Competency Assessment (RCA), or Department Specific Competency (DSC) form. *(If the statement is not present, it can be written-in*.) The competency statement is then initialed and dated as complete.

<table>
<tr><td>Competency Statement:</td><td>Demonstrates management of a lumbar drainage device for a TCVICU patient post-thoracoabdominal aortic surgery</td></tr>
<tr><td>Validator(s):</td><td>RN with documented competency for TCVICU lumbar drainage device management for the TCVICU post-op patient as stated above.</td></tr>
<tr><td>Validator Documentation Instructions:</td><td>Validator documents method of validation (below) and initials each skill box once completed and places their full name, signature, and completion date at the end of the document.</td></tr>
<tr><td>Method of Validation:

(Place any required methods for this competency in bold)</td><td>
<table>
<tr><td>DO</td><td>Direct Observation – Return demonstration or evidence of daily work.</td></tr>
<tr><td>T</td><td>Test: Written or oral assessments, surveys or worksheets, passing grade on a CBL test.</td></tr>
<tr><td>S</td><td>Simulation</td></tr>
<tr><td>C</td><td>Case Study/ Scenarios: Create/share a story of a situation then ask questions that capture the nature of the competency that is being referenced.</td></tr>
<tr><td>D</td><td>Discussion: Identify questions related to a competency and ask orientee to provide an example of their real-life experiences.</td></tr>
<tr><td>R</td><td>Reflection: A debriefing of an actual event or a discussion of a hypothetical situation.</td></tr>
<tr><td>QI</td><td>Quality Improvement Monitoring: Audits or compliance checks on actual work or documentation to ensure the competency is completed.</td></tr>
<tr><td>N/A</td><td>If the specific product or process step is not used in the respective area or by the respective role, then this step is deemed N/A.</td></tr>
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<tr><td>Validation Instructions:</td><td></td></tr>
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Demonstrated Skill **Behaviors for Competency (Critical Behaviors in Bold)**	**Method of Validation**	**Evaluator's Initials**
Verbalizes the **patient population** and **purpose for their lumbar drain** in TCV ICU		
Locates the **nursing policies, standard work, and standard operating procedures** related to TCV management of lumbar drains		
Educates patients and families about lumbar drains and their functions		
Explains **individual indications** for management of lumbar drains:		

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• Most are placed pre-operatively in Neuro Interventional Radiology ○ Patient then admitted to and managed by TCV ICU team awaiting surgery • If emergent, the lumbar drain may be placed in OR • If indicated, one could also be inserted at the bedside		
Verbalizes lumbar drain **complications** and **interventions**: • Lumbar drain becoming **inadvertently unclamped or dislodged** • Intracranial hypotension: Importance of **ensuring the lumbar drain is connected to a drainage system & transducing at all times**		
Components of admitting a patient with a lumbar drain:		
Verbalizes that the **LIP will connect the lumbar drain to drainage system** (if not in place upon arrival) • RN assists LIP • Once the LIP connects the drainage system, the **RN will connect the non-flush transducer** according to standard procedure		
Describes components of **Post-Op Hand Over of Care with Anesthesia**: • **Anesthesia and bedside RN must visualize the lumbar drain site together prior to Anesthesia leaving the room** ○ Note abnormal findings and ensure a corrective plan is created • Ensures drainage system is patent, primed, and without air • ICP/CPP parameters and escalation process are established and ordered • With LIP, ensure all orders are placed specific to lumbar drain including initial & ongoing labs		
Hourly and PRN Patient Assessment and Documentation:		

Discusses standard neurovascular assessment process:
• Minimize sedation as tolerated for assessment as guided by LIP, together
• Include LE strength, temperature, pulses, and sensation
  ○ **Hip and knee flexion**
• Pupil size and reaction, mental status (e.g.: RASS, GCS, orientation)
• Neurological complaints (e.g.: headache, lightheaded/dizzy, or tired/fatigued)
  ○ Verbalizes **Who to Notify when there are Neurovascular Deficits**:
    ▪ ICU **LIP** AND **Intensivist** AND **Vascular Fellow**
    ▪ Confirm **Attending** surgeon is notified		

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Discusses standard CSF fluid assessment requirements:
• Documentation for assessment and output in EMR (For Epic: I/O Flowsheet→ lumbar drain →CSF)
  ○ Color, clarity, and drainage amount
  ○ Output in mL
  ○ Vital sign and I/O measurement frequency and parameters
• ICP levels and if ordered parameters are met
  ○ **If ≥ 20 mL/hour of CSF drainage** is **required to achieve ICP goals Notify LIP, Intensivist, & Vascular Surgery fellow/attending**
• Any change in CSF fluid needs reported immediately and documented in the EMR as a "shift event."
  ○ Fluid quality
  ○ CSF Output Changes:
    ▪ **If ≥ 150 mL of CSF is drained within 24 hours: Notify LIP, Intensivist, & Vascular Surgery fellow/attending**		

Discusses lumbar drain patency assessment process
• For patients with lumbar drain devices placed pre-operatively (regardless of ICP) & patients who don't meet the ICP parameters to drain:
  ○ Drain 5 drops (0.5 ml) of CSF every hour to maintain patency
  ○ **If unable to obtain 5 drops → notify LIP regarding patency concerns**		

Discusses ICP Waveform assessment process • Absence of ICP waveform → troubleshoot first • Notify LIP if still no waveform after troubleshooting		
Discusses assessment of ICP and CPP values • Documentation in the EHR • Signs/symptoms of increasing ICP		
Discusses patient and lumbar drainage device (LDD) positioning • Ensures LDD is on IV pole & stopcock is adequately leveled at the tragus with "Carpenter's" level (comes with lumbar drain) • Ensures HOB remains flat while draining & HOB is max 30° while clamped • Patient remains on strict bedrest while the lumbar drain is in place • Documents position changes per unit guidelines & places printed sign at HOB stating lumbar drain in place •		
Every 4-Hour Lumbar Drain Site Assessment and Documentation:		
Assesses and documents insertion site:		

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• Signs of infection, CSF leakage, or malpositioning
• Dressing status
    o Change every 7 days or PRN
• Visualizes LDD from insertion site → entire tubing and drainage system
• Assesses patency at beginning of shift and as needed
    o Lower lumbar drain below patient & observe for a drip		

Verbalizes LDD **Troubleshooting Steps:**		
1. Assesses the CSF for color, clarity, and presence of debris 2. Assesses tubing for kinks or bubbles 3. Checks that all of the connections are tight 4. Assesses patency 5. Asks a second nurse to check the connections and patency of the drain 6. **Do NOT aspirate from or flush the LDD** ****If troubleshooting fails, notify the LIP and intensivist immediately ****		
Verbalizes **Who to Notify** when there are **Neurovascular Deficits**: • ICU **LIP** AND **Intensivist** AND **Vascular Fellow** • Confirm **Attending** surgeon is notified		
Explains **LDD Maintenance and Hemodynamic Goals** for a Neurologically Intact Person:		
• MAP >80, CI >2.0, ICP <10, CPP >70 o Discusses how this is calculated • Every hour, determines the need to drain the lumbar drain to maintain these pressures		
Explains **Default Position of LDD**: • Default position = Transducing • ONLY have stopcock closed briefly to the patient during repositioning or suctioning the patient o Can transduce during a road trip to monitor ICP		
Explains or Demonstrates **How to Zero the LDD, When to do this, and Where to find Standard Work**: • Performs at the beginning of shift, every hour, and with any position changes • Verbalizes use of mmHg measurement of ICP/CPP *instead* of cmH2O		

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Explains or Demonstrates **LDD Standard Work**	

• Locates standard work for LDD
• Explains or demonstrates how to drain the LDD
• Draining is needed WHEN:
    o If ICP >10 mmHg, drains CSF for 5 minutes & rechecks CSF pressure after 5 minutes ***drain no more than 20 mL of CSF/hour***
    o If ICP remains >10mmHG, repeat the process starting with transducing the LDD
    o Repeat cycle of draining every 5 minutes & checking pressures until ICP < 10 mmHg or 20 mL CSF has been drained that hour	

Explains **Removal of the LDD & Post-removal Assessment:**	

Removal of the LDD process includes:
• Who removes the drain
• Written order for removal present
• Labs to be checked for presence of coagulopathy
• Medications to hold
• Clamping trial
• Post-removal patient positioning:
    o Patient **MUST** lay flat for 2 hours following removal
    o After 2 hours, assess site for drainage
        ▪ If drainage present → keep patient flat for another 2 hours
    o Repeat until there is no drainage	

Patient Assessment Post Removal: • Assess site for CSF leakage – every 1 hour x 2, then every 2 hours x 2, and then every 4 hours for 48 hours, then every shift • Neurological and neurovascular assessment- every 1 hour x 2, every 2 hours x 2, and every 4 hours for 48 hours, then every shift ▪ When to notify LIP for variances	
Explains special considerations regarding anticoagulation with lumbar drain or post-lumbar drain patients	
Explains one potential complication of a lumbar drain	
Demonstrates or verbalizes lumbar drain documentation requirements	
Verbalizes expected outcomes of ICP monitoring and CSF drainage	
Explains where to document patient/family education	

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Competency Verified by:

____Date: __________________

Validator's Name (printed) *Validator's signature*

References: Lippincott Procedures "Lumbar drain management after thoracoabdominal aortic aneurysm repair,"