

## NURSING CLINICAL STANDARD

**BURR HOLE WITH AN EXTERNAL DRAINAGE SYSTEM - ICU**

- PURPOSE:** To outline the management of the patient requiring a burr hole with an external drainage system.
- SUPPORTIVE DATA:** Burr hole with an external drainage system may be used in the treatment of subacute and chronic subdural hematomas. A small burr hole is made in the cranium through which a subdural catheter is placed into the subdural space. A closed external drainage system is then attached allowing the subdural hematoma to be drained by gravity. Dressings are changed by provider only.
- ASSESSMENT:**
1. Assess neurological status, signs/symptoms of increased intracranial pressure (ICP) a minimum of every 1 hour:
    - Level of consciousness
    - Equality of pupillary size and reaction
    - Headache
    - Nausea or vomiting
    - Motor/sensory function
  2. Assess dressing and external drainage system a minimum of every 4 hours:
    - Color, consistency of drainage
    - Dressing clean, dry and intact
  3. Assess drainage output a minimum of every 1 hour.
  4. Assess for baseline PT/APTT results.
- MAINTENANCE:**
5. Maintain drainage bag below the head at all times.
  6. Maintain head of bed as ordered.
- SAFETY:**
7. Keep drainage system free from bed siderails to reduce incidence of accidental removal.
  8. Keep drainage system free of kinks.
- DISLODGE MENT:**
9. Place sterile 4x4 over burr hole site.
- DISCONNECTION:**
10. Clamp subdural catheter.
  11. Set up and reconnect new external drainage system.
- REPORTABLE CONDITIONS:**
12. Notify the provider for:
    - Change in neurological status, signs/symptoms of increased ICP
    - Dislodgement/disconnection
    - Change in color and consistency of drainage
    - Excessive drainage
    - Saturated dressing
- PATIENT/ CAREGIVER EDUCATION:**
13. Instruct on the following:
    - Purpose of burr hole and external drainage system
    - Importance of maintaining HOB at prescribed level
    - Notification of nursing staff for:
      - Leak at burr hole site
      - Change in neurologic status
      - Dislodgement or disconnection
- ADDITIONAL STANDARDS:**
14. Refer to the following as indicated:
    - Immobility
    - Restraints

- Fall/Injury Prevention
- Pressure Injury Prevention and Management

DOCUMENTATION: 15. Document in accordance with documentation standards.

Initial date approved: 11/97	Reviewed and approved by: Professional Practice Committee Critical Care Committee Nurse Executive Council Attending Staff Association Executive Committee	Revision Date: 11/00, 03/05, 07/08, 3/15, 10/20
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References:

McBride, W. (2018) Subdural hematoma in adults: Prognosis and management. Retrieved from Uptodate.