

## Biopsy of the Brain Using a Stereotactic Head Frame

### Site Applicability

VGH, UBCH

### Background Information

The procedure of biopsying the brain using a stereotactic headframe combines the imaging capabilities of the CT Scanner and the design capabilities of a headframe, which defines in 3 dimensions any point within the cranium. This allows the neurosurgeon to precisely localize any lesion no matter how large or small, and to precisely biopsy any part of the lesion.

The patients are awake for the entire procedure which includes:

- attachment of the headframe by 4 pins inserted into the skull
- the pre-op CT Scan
- transport from Neuroradiology to LSPOR with the headframe on the biopsy procedure

Though the patients receive local anesthesia, light sedation and/or analgesics, the grinding noise made during the burr hole can be distressing, if they are not forewarned of the noise.

### Problem(s) / Intervention(s)

1. <b>ALTERED NEUROLOGICAL STATUS</b> related to cerebral swelling or hemorrhage	<ul style="list-style-type: none"> <li>• Complete neurological assessment q1h x 8h, then q4h if neuro-vital signs are stable or as ordered by doctor.</li> <li>• Notify doctor immediately of any change in level of consciousness or in any aspect of the neurological assessment.</li> <li>• Avoid over-sedating the patient, thereby ensuring that neurological status can be accurately assessed.</li> </ul>
2. <b>POTENTIAL FOR POST-OPERATIVE INJURY</b> related to pre-existing neurological deficits	<ul style="list-style-type: none"> <li>• Refer to Protocol: <a href="#">Falls &amp; Injury Prevention Guideline in Acute Care. [D-00-07-30033]</a></li> </ul>
3. <b>SEIZURES</b> related to cerebral trauma and/or hemorrhage	<ul style="list-style-type: none"> <li>• Refer to Protocol: <ul style="list-style-type: none"> <li>○ <a href="#">Seizure Management (Adult/Pediatric)[BD-00-07-40059]</a></li> </ul> </li> </ul>

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## References

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Mitchem, H.L. (1984). A CT Guided Sterotactic Apparatus: New Approach to Biopsy and Removal of Brain Tumors. Journal of Neuroscience Nursing, 16, 231-236; AORN Journal, 40, 543-550. Journal of Neurosurgical Nursing, 16, 231-236.

Temple, A.P., (1984). Stereotactic Surgery Often an Alternative to Craniotomy.

**UNIT(s) OF ORIGIN: Neurosciences, 2001**

## Alternate Search Terms