NEUROSURGERY (M-NS)
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The strong neurosurgery program at UCSF makes the neuroanesthesia rotation an excellent clinical experience. There is an abundance of craniotomies for tumor, with patients both asleep and awake. There is a busy neurovascular service, incorporating both the surgical approach and interventional radiology procedures to manage cerebral aneurysms and arteriovenous malformations. Additionally, there are surgical procedures for transsphenoidal resection of pituitary tumors, for seizure disorders, and for movement disorders. Large number of cases also involve the spinal cord and the spinal column. Large portion of the neurosurgical cases involve neurophysiologic monitoring. Assignments to the neuroanesthesia rotation are usually in the CA-1 or CA-2 year. Residents are provided a neuroanesthesia handbook prior to the rotation. They are expected to read the entire handbook during the rotation. In addition to the clinical rotation, the residents are given seven lectures throughout the residency covering the basics of neuroanesthesia. The department has a neuroanesthesia website which outlines the most common anesthetic techniques for the most common neurosurgical procedures.

Objectives:
During the course of the neuroanesthesia rotation, reading the handbook, attending the neuroanesthesia lectures and using the neuroanesthesia website, the resident should gain a basic knowledge of the principles of neurophysiology and neuropharmacology, and should understand the interaction of anesthetic and adjuvant drugs with CNS physiology. By the end of the rotation, the residents should have developed and be able to apply the skills necessary to manipulate and control CNS physiology with particular reference to cerebral hemodynamics, intracranial pressure, and brain protection. The residents will have gained experience delivering anesthesia to patients undergoing craniotomy for excision of tumors, neurovascular abnormalities, pituitary tumors, movement disorders and various CSF shunting procedures. They will gain experience in supratentorial procedures and those in the middle and posterior fossae, and skull base. They will gain familiarity with techniques for intraoperative monitoring of motor and speech function, EEG, SEPs, and cranial nerve function. At the completion of the rotation, the residents should be competent in and comfortable with all but the most specialized neuroanesthesia techniques.