

SUBJECT: RULES AND REGULATIONS	REFERENCE #2001
DEPARTMENT: ANESTHESIA	PAGE: 1 OF: 7
APPROVED BY:	EFFECTIVE:
	REVISED:

### **ORGANIZATION OF THE DEPARTMENT:**

- The Department of Anesthesia is an integral part of the Surgical Services Department. Anesthesia services are provided by a group of qualified licensed physicians specially trained in anesthesiology and CRNAs for all general, regional, spinal and moderate sedation and pain management procedures on a five (5) day per week basis. Emergency surgical procedures which require the services of an anesthesiologist or CRNA are covered by an "on-call" anesthesiologist or CRNA 24 hours per day, seven (7) days per week (or after hours).
- In addition, the anesthetist, if available, should assist in all cardiopulmonary resuscitations in the hospital. Neonatal resuscitation, however, is normally performed by a pediatrician, if available.
- Assignment of anesthesia cases will be on a first, second and third choice on a revolving system. Each staff anesthesiologist or CRNA will implement the assignment system on a monthly rotating basis. Night calls will also be covered on this system.
- A qualified anesthetist will assist in the management of acute or chronic respiratory failure or acute and chronic pain syndromes and a variety of different diagnostic and therapeutic measures related to quality patient care.

### **DIRECTOR OF DEPARTMENT:**

- Qualifications:
  - Must be a member of the active medical staff
  - Must be licensed qualified physician who has successfully completed an approved anesthesiology program from the American Board of Anesthesiology and accepted by the state of licensure of the hospital
  - Appointed by the Chief of Staff according to the medical staff bylaws of the hospital

### **RESPONSIBILITIES/DUTIES:**

- The Chief of Anesthesia has responsibility for, but is not necessarily limited to:
  - Serving as Chairperson of the Department of Anesthesia
  - Responsible to the Department of Anesthesia

SUBJECT: ANESTHESIA AWARENESS	REFERENCE #2018
DEPARTMENT: ANESTHESIA	PAGE: 1 OF: 4
APPROVED BY:	EFFECTIVE:
	REVISED:

## **DEFINITIONS:**

- Anesthesia:
  - For the purpose of this policy, anesthesia consists of general anesthesia and spinal or major regional anesthesia. It does not include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.
- Anesthesia Awareness:
  - Anesthesia awareness is defined as a situation that takes place when a patient, **under general anesthesia**, becomes aware of some or all events during surgery or an invasive procedure and has direct recall of those events.

## **POLICY:**

The Anesthesia Department is committed to preventing and, when unavoidable, adequately managing unintended intraoperative awareness, known as anesthesia awareness. The following processes will be undertaken to identify patients at risk for anesthesia awareness, prevent the occurrence if possible, and adequately manage the occurrence if it occurs.

## **PROCEDURE:**

- All clinical staff (anesthesia and nursing staff) in the Surgical Services Department will receive education on anesthesia awareness, including identification of patients at risk, precipitating factors, prevention and management of anesthesia awareness.
  - Patients who may be at risk for anesthesia awareness are those patients who undergo abdominal, cardiac, obstetric, ophthalmologic, thoracic or trauma surgeries.
  - Precipitating factors may include:
    - Excessive use of neuromuscular blockers
    - The misuse or failure of equipment during surgery

SUBJECT: MANAGEMENT OF PATIENT WITH MALIGNANT HYPERTHERMIA	REFERENCE #2037
	PAGE: 1 OF: 3
DEPARTMENT: ANESTHESIA	EFFECTIVE:
APPROVED BY:	REVISED:

**POLICY:**

To outline the proper procedure for the management of a patient with malignant hyperthermia.

**PROCEDURE:**

- Patients experiencing malignant hyperthermia may exhibit a number of different symptoms, including, but not limited to, unexplained muscle rigidity, unexplained tachycardia or cardiac dysrhythmia, change in skin color from flush to mottling to cyanosis and tachypnea. A later symptom is fever, with temperatures elevating rapidly, as much as 1.8 degrees F (1 degree C) every three (3) minutes, creating temperatures as high as 114 degrees F (45.5 degrees C). This may constitute an emergent situation.
- Malignant hyperthermia is triggered in susceptible patients by general anesthetics; halothane, enflurane, isoflurane, desflurane, sevoflurane and the muscle relaxant, succinylcholine.
- If malignant hyperthermia is suspected, the following steps are taken:
  - Stop all anesthesia once the diagnosis of malignant hyperthermia is made.
  - The surgeon shall close the surgical wound, if possible. If not, the surgeon should pack the wound with saline-soaked surgical towels or laparotomy sponges. The Circulating RN will document, on the Intraoperative Nurses' Notes, the number of towels/lap sponges used to pack the wound.
  - Change all rubber devices on the anesthesia machine. Anesthetic agents are absorbed into the rubber and will exude these agents, providing a continuous trigger mechanism to compound management difficulties.
  - Hyperventilate with 100% O<sub>2</sub> in an attempt to meet the requirements of the body during the crisis period.
  - Notify the Pharmacy of the clinical diagnosis and picture. Administer Dantrium (dantrolene sodium) IV as soon as possible. The recommended dosage is 2.5 mg per kg, and repeat the dose until the signs are controlled. As a large quantity may be necessary, a sufficient supply must be available. Vials are available in the Surgical Services Department, extra vials of Dantrium are available in the Pharmacy. Additional vials will be obtained by the Pharmacy from outside sources, if needed.

SUBJECT: CAPNOGRAPHY	REFERENCE #2039
DEPARTMENT: ANESTHESIA	PAGE: 1 OF: 5
APPROVED BY:	EFFECTIVE:
	REVISED:

## **DEFINITION:**

- Capnography indicates how much CO<sub>2</sub> is being eliminated from the lungs by measuring exhaled CO<sub>2</sub>.
- For ventilated patients the CO<sub>2</sub> measurement should take place within the endotracheal tube, and for non-intubated patients the measurement should take place near the mouth or nares.
- Capnograph uses one of two types of analyzers:
  - Mainstream units are used only on intubated patients and have an analyzer connected to a endotracheal tube for “real-time” monitoring of CO<sub>2</sub> concentrations.
  - Sidestream units may be used on nonintubated patients and intubated patients using a sampling pump with a line connecting from the patient to the monitor.
- PetCO<sub>2</sub> 35-45 mm Hg is the normal value for capnography. However, some experts say 30 mm HG - 43 mm Hg can be considered normal.
- Abnormal Values:
  - End Tidal CO<sub>2</sub> (ET CO<sub>2</sub> or Pet CO<sub>2</sub>) less than 35 mmHg = "Hyperventilation/ Hypocapnia"
  - ETCO<sub>2</sub> greater than 45 mmHg = "Hypoventilation/Hypercapnia"
- Indications for Capnography:
  - Confirming endotracheal tube placement
  - Evaluation of the exhaled [CO<sub>2</sub>], especially end-tidal CO<sub>2</sub> (designated PetCO<sub>2</sub>)
  - Monitoring severity of pulmonary disease and evaluating response to therapy
  - Continued monitoring of the integrity of the ventilatory circuit including the artificial airway; alarm sounds with ventilator disconnects
  - Evaluation of the efficiency of mechanical ventilatory support by the determination of the difference between the arterial partial pressure for CO<sub>2</sub> (PaCO<sub>2</sub>) and the PetCO<sub>2</sub>

# POSITION DESCRIPTION / PERFORMANCE EVALUATION

Job Title: Certified Registered Nurse Anesthetist (CRNA)  
 Prepared by: \_\_\_\_\_  
 Date: \_\_\_\_\_

Supervised by: Chief of Anesthesia, Chief CRNA  
 Approved by: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Job Summary:** Administers anesthesia and anesthesia-related care under the orders of a physician. Monitors and supports vital life functions. Acts as the patient's advocate while the patient is under anesthesia. Participates in performance improvement and continuous quality improvement activities (CQI).

**DUTIES AND RESPONSIBILITIES:**

3 = Exceeds Performance                      2 = Expected Performance                      1 = Needs Improvement

**Demonstrates Competency in the Following Areas:**

Demonstrates ability to administer all types of anesthesia, including general, major regional, local and minimal, moderate and deep sedation.	3	2	1
Demonstrates knowledge of the principles of growth and development and the skills necessary to provide care appropriate to the age of the patient, neonate through geriatric.	3	2	1
Performs and documents pre-anesthetic assessment and evaluation of the patient, including all appropriate lab values, study results, consultative information and pre-anesthesia clinical history.	3	2	1
Ability to adequately assess and reassess pain. Utilizes appropriate pain management techniques. Educates the patient and family regarding pain management.	3	2	1
Performs all aspects of patient care in an environment that optimizes patient safety and reduces the likelihood of medical/health care errors.	3	2	1
Documents evidence of informing patient of all risks, potential complications, options and alternatives to anesthesia. Obtains informed consent.	3	2	1
Develops, implements and documents an anesthetic plan of care, prior to providing anesthesia. Documents planned anesthesia selection for the patient.	3	2	1
Performs an assessment immediately prior to induction of anesthesia of the patient and documents this in the medical record.	3	2	1
Maintains the patient's physiologic homeostasis and corrects abnormal responses to the anesthesia and/or surgery, should these occur.	3	2	1
Collects and interprets patient physiological data by selecting, applying or inserting noninvasive monitoring modalities.	3	2	1
Displays ability to intubate most patients with ease, manages the patient's airway and pulmonary status through the perioperative process.	3	2	1
Performs a smooth induction of anesthesia for patients requiring general anesthetic.	3	2	1
Performs smooth patient emergence and recovery from anesthesia by maintaining homeostasis, providing relief from pain and anesthesia side effects.	3	2	1
Prevents and manages complications through selecting, obtaining, ordering and administering medications, fluids or ventilator support in correct dosages and methods.	3	2	1
Follows the six (6) medication rights and reduces the potential for medication errors.	3	2	1