



COMMONWEALTH
ANESTHESIA
ASSOCIATES

ST FRANCIS MEDICAL CENTER

ANESTHESIOLOGY POLICIES AND PROCEDURES

APPROVED BY:

BRIAN HACKER, M.D.

CHIEF OF ANESTHESIA SERVICES



CHIEF'S SIGNATURE, SFMC

APRIL 2017

ALL POLICIES AND PROCEDURES IN THIS MANUAL WERE REVIEWED AND REVISED AS NEEDED IN APRIL 2017.



ST. FRANCIS MEDICAL CENTER
ANESTHESIOLOGY POLICIES & PROCEDURES

TABLE OF CONTENTS

	<u>POLICY #</u>
CAA Mission Statement	CAA-01
CAA Code of Conduct	CAA-02
CAA Organizational Chart	CAA-03
Organization of the Anesthesia Department	SS8-001
Purpose of the Anesthesia Department	SS8-104
Definition of Anesthesiology	SS8-004
Anesthesia Coverage	SS8-005
Chair of Anesthesia Department Responsibilities.....	SS8-006
Anesthesiologist's Responsibilities	SS8-008
Certified Registered Nurse Anesthetist's Duties & Responsibilities.....	SS8-009
Orientation	SS8-010
General Policies & Procedures of the Anesthesia Department.....	SS8-011
Pre-Anesthesia Evaluation Delineation of Anesthesia Care	SS8-012
Anesthesia Guidelines for Pre-Admission Testing.....	SS8-013
ASA Classification	SS8-014
Interoperative Anesthesia Monitoring & Documentation.....	SS8-015
Responsibility – Patient Not Admitted to PACU	SS8-016
Protocol for Outpatient Surgery in Surgical Services	SS8-017



Infection Control Responsibilities	SS8-018
Anesthesia – Infection Control Guidelines	SS8-019
Policies to Ensure the Safe Administration of Anesthetic Agents.....	SS8-020
Anesthesia Apparatus Check Recommendations & Checklist.....	SS8-021
Malignant Hyperthermia	SS8-022
Sentinel Event	SS8-023
Anesthesia Awareness.....	SS8-024
Quality Assessment	SS8-025
Anesthesia Quality Improvement	SS8-026
Inservice Programs	SS8-027
Procedures to be Used for Disaster Call Plan.....	SS8-028
Performance Appraisal	SS8-029
Continuing Education	SS8-030
Post Anesthesia Care	SS8-031
CAA Employees’ Responsibilities for Compliance	SS8-032
Security of Anesthesia Carts	SS8-124
Intralipids and Regional Blocks	SS8-127
Administration of Moderate Sedation & Analgesia (Adult & Pediatric).....	PAT-500
Sedation Drugs & Reversal Agents	Appendix A

Title: Commonwealth Anesthesia Associates
Mission Statement

Policy
Number: CAA-01

Date
Revised: 1/04
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

MISSION STATEMENT:

The mission of Commonwealth Anesthesia Associates is to provide safe, effective, and ethical care to our patients. To accomplish this mission, our group of board-certified anesthesiologists work in a Care Team Model with certified registered nurse anesthetists.

We are committed to providing advocacy and education for our patients. We strive to create a fulfilling work environment for all CAA members by developing innovative care-plan strategies, providing ethical leadership for operating room and practice management and providing market responsive peri-operative services.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates:

Title: Commonwealth Anesthesia Associates
Code of Conduct

Policy
Number: CAA-02

Date
Revised: 12/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

Commonwealth Anesthesia Associates will maintain an appropriate level of care, service and confidentiality for our patients. The organization is guided at all times by the value of compassion, mercy and respect for the dignity of every patient. It is the responsibility of every person affiliated with Commonwealth Anesthesia Associates to observe all applicable laws and regulations in practice business dealings. Commonwealth Anesthesia Associates is committed to the accurate and proper submission of all insurance claims.

I have read and understand CAA's Code of Conduct

Name: _____

Signature: _____

Date: _____

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 10/01, 8/05, 11/07

Title: Organizational Chart

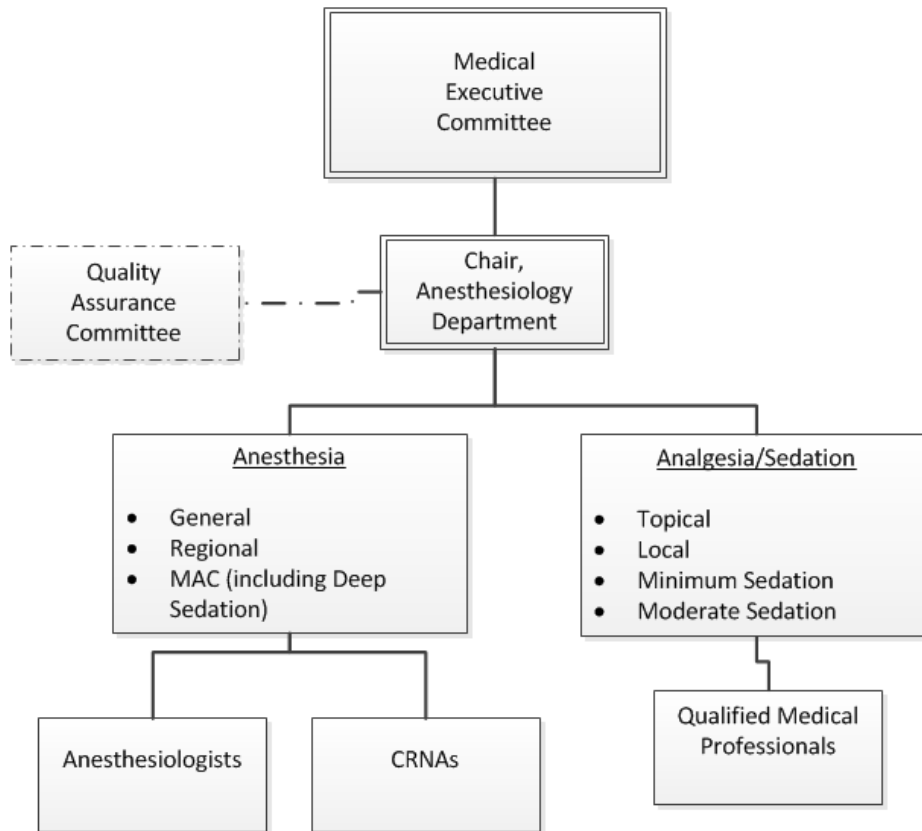
Policy Number: CAA-03

Date Revised: 04/17
 Reviewed: 04/17

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

Hospital Anesthesia Services



Reference Policy # _____

Approved by:

 Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: Brain Hacker 5/02/2017

Title: Organization of the Anesthesia
Department

Policy
Number: SS8-001

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

To outline the structure and manner in which the Anesthesia Department is organized.

POLICY:

1. The Anesthesia Department oversees all anesthesia services provided in the hospital (including all departments). This includes anesthesia (general, regional, MAC and deep sedation) and analgesia/sedation (topical, local, minimal and moderate sedation).
2. The Anesthesia Department must develop policies and procedures on provision of all anesthesia services (including analgesia) and minimum qualifications for each practitioner to provide these services.
3. The Department of the Anesthesiology is composed of a Chair and Vice Chair, as outlined in the By-laws of Bon Secours Richmond.
4. A minimum of nine monthly departmental meetings per year will be held on the fourth Thursday of each month. A discussion of old and new business, complications and mortality will be reviewed. In addition, "Mortality and Morbidity" meetings may be held to discuss specific complications and/or mortality issues. Special meetings may be called by the Chair at any time.
5. Nurse Anesthetists attend departmental meetings. In the event that patients are scheduled in the operating room, attendance shall be excused. Important matters are communicated through the Chief Nurse Anesthetist and/or Assistant Chief Nurse Anesthetist.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 1/97, 8/05, 3/07

_____	_____
_____	_____

6. Minutes of the proceedings are taken, read, and approved by the Chair. Attendance records will be kept.
7. Active members of the department of anesthesia are required to attend at least fifty percent (50%) of all departmental meetings. Departmental meetings include, but are not limited to, committee, departmental, and general medical staff meetings. Excused absences are granted at the discretion of the Department Chair.
8. The Department Chair appoints a member to the Credentials Committee, OR Committee and to various other committees as deemed appropriate.
9. The responsibilities of the Chair are outlined in the By-laws (Article VI, Section 5-E).
10. The appointment and reappointment process for the Department of Anesthesia is outlined in the Bylaws and Rules and Regulations of the Medical Staff.

Title: Purpose of the Anesthesia Department

Policy
Number: SS8-104

Date
Revised: 9/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

The primary purpose of the Anesthesia Department is to provide safe and effective anesthesia care for patients undergoing operative and other invasive procedures. This includes care provided in operating rooms, labor & delivery, radiology, and other locations where anesthesia services are required and deemed appropriate.

The Anesthesia Department provides oversight to all anesthesia and analgesia/sedation that is provided within the hospital. Anesthesia (defined as general, regional, MAC, and deep sedation) may be provided by an anesthesiologist or by a CRNA who is being supervised/directed by an anesthesiologist. Analgesia/Sedation (defined as topical, local, minimal or moderate sedation) may be administered by medical professionals who are appropriately trained and is within the scope of their practice.

PROCEDURE:

The Department of Anesthesia provides guidance and assistance in the development of policies and procedures related to the administration of anesthesia and analgesia/sedation throughout the institution.

The Anesthesia Department participates in, and assists with, the hospital's cardiopulmonary resuscitation program. These services include, but may not be limited to, consultation and assistance in the clinical management of acute or chronic respiratory insufficiency problems.

Anesthesia staff members are available for consultation concerning diagnostic or therapeutic measures related to the provision of anesthesia care. In addition, the Anesthesia Department actively participates in the following activities:

- Serves as an active member of the OR Committee
- Participates in the evaluation of, and makes recommendations regarding, new and/or replacement of anesthesia and related equipment
- Works with Surgical Services, Administration and other departments, as appropriate, to establish par levels, and promote cost-effective use of anesthesia equipment.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 7/01, 10/02, 3/04, 8/05

_____	_____	_____
_____	_____	_____

Title: Definition of Anesthesiology

Policy
Number: SS8-004

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide an overall understanding and definition of the practice of Anesthesia

POLICY:

1. Anesthesia is the practice of medicine dealing with, but not limited to:
 - a. the administration of medication to produce a blunting or loss of pain perception, voluntary and involuntary muscle movements, autonomic function and memory and/or consciousness;
 - b. the support of a patient's life functions under the stress of anesthetic and surgical manipulations;
 - c. the management of patients and problems related to the relief of pain;
 - d. the management of patients and problems during cardiac and respiratory resuscitation; and
 - e. clinical management of patients with various fluid, electrolyte and metabolic disturbances.
2. Analgesia/Sedation involves the use of a medication to provide relief of pain through the blocking of pain receptors in the peripheral and/or central nervous system. The patient does not lose consciousness, but does not perceive pain to the extent that may otherwise prevail.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 12/93, 97, 8/05, 3/07

Title: Anesthesia Coverage

Policy
Number: SS8-005

Date
Revised: 04/17
Reviewed: 04/17

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

To provide guidelines for the type and amount of coverage provided by the Anesthesia Department

POLICY:

1. The Anesthesia Department shall provide hospital/facility coverage according to the following criteria:
 - a. An Anesthesiologist will be physically present in the hospital twenty-four (24) hours per day, seven (7) days per week;
 - b. Anesthesiologists, in conjunction with Certified Registered Nurse Anesthetists (CRNA), are responsible for the coverage of the operating rooms;
 - c. An Anesthesiologist will be available in the hospital while cases involving general, regional, or MAC anesthesia are being performed;
 - d. An Anesthesiologist, whose primary responsibility is the Labor and Delivery Suite, will always be immediately available.
 - Immediately available means the anesthesiologist is in or near the physical site where the CRNA is providing anesthetic care. Coverage may also be shared among other anesthesiologist in the group.
 - An anesthesiologist is considered "immediately available" when needed by a CRNA under the anesthesiologists' s supervision only if he/she is physically located within the same area as the CRNA, and not otherwise occupied in a way that prevents him/her from immediately conducting hands-on intervention, if needed.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates: 12/93, 12/95, 1/97, 8/05, 3/07

04/17 Bruce Haacker

5/02/2017

-
2. In the event the Anesthesiologist on call requires additional anesthesia personnel to provide emergency coverage, he/she notifies the 2nd call anesthesia provider, who will respond within 30 minutes.

Title: Chair of Anesthesia Department
Responsibilities

Policy
Number: SS8-006

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

The Chair of the Anesthesia Department is a board certified doctor of medicine or osteopathy whose responsibilities include, but are not limited to, the following:

1. Planning, directing and supervising all activities of the hospital's anesthesia services in all locations,
2. Recommending privileges for all individuals who have responsibility for providing anesthesia services. These privileges are processed through the Credentials Committee of the Medical Staff of St. Francis Medical Center.
3. Assuring that the quality and appropriateness of the hospital's anesthesia services are monitored and evaluated; and appropriate actions based on the findings are taken, and participating in the development of clinical criteria to be used in monitoring. This includes anesthesia provided by any anesthesia provider in any department or location in the Hospital, including the Emergency Room, Radiology, Intensive Care, Obstetrical Suites, the Cardiac Catheterization Lab, etc.
4. Recommending to the Hospital's Administration and Medical Staff the type and amount of equipment required to provide the necessary scope of service.
5. Developing guidelines for anesthesia safety.
6. Reviewing, when appropriate, procedures performed by anesthesia providers, patient management issues, consultation issues, pain management issues, and quality assurance information to help ensure the best care for our patients.
7. Assigning or designating the assignment of room coverage and on-call responsibilities of anesthesia providers.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 1/97, 8/05, 3/07

8. Enforcing the rules, regulations policies, procedures and bylaws of the Hospital, Anesthesia Department and Operating Room.
9. Establishing and maintaining a high level of professional ethics in all anesthesia providers.

Title: Anesthesiologist's Responsibilities

Policy
Number: SS8-008

Date
Revised: 04/17
Reviewed: 04/17

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

POLICY:

Anesthesiologists will be able to perform all of the independent services usually required in the practice of anesthesiology; including accepted procedures commonly used to make the patient insensitive to pain during the performance of surgical and pain-producing clinical maneuvers; to relieve pain-associated medical syndromes; to support life functions during the administration of anesthesia, to provide appropriate pre-anesthesia and post-anesthesia management of the patient; and to provide consultation services related to other types of patient care (such as respiratory therapy, cardio-pulmonary resuscitation, and special problems in pain relief).

Anesthesiologist will be:

- Educated at an accredited medical school
- Trained at an accredited anesthesiology residency program
- Licensed by the Commonwealth of Virginia
- Licensed by the United States Department of Justice Drug Enforcement Administration
- Board certified and/or Board eligible by the American Board of Anesthesiologists or the American Osteopathic Board of Anesthesiologists. *This requirement may be waived in an individual circumstance if agreed upon by both SFMC Administration and CAA as long as it is in compliance with existing by-laws.*
- Meet all qualifications for Medical Staff privileges at SFMC, and
- Responsible for the personal provision of an anesthetic or medical direction or supervision of CRNAs.
- Physically present at the facility, available by the anesthesia-specific communication device and immediately available if needed by the CRNA.
- Immediately available means the anesthesiologist is in or near the physical site where the CRNA is providing anesthetic care. Coverage may also be shared among other anesthesiologist in the group.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07, 04/17

_____ <i>Brian Hatcher</i> _____	_____ 05/02/2017 _____
----------------------------------	------------------------

- To remain “immediately available” a medically directing anesthesiologist may not:
 - Personally perform another anesthetic
 - Perform other elective procedures on patients not undergoing a surgery (such as chronic pain blocks)
 - Engage in any activity that would prevent a timely return to establishing direct contact with the patient.

- A medically directing anesthesiologist may perform the following while remaining “immediately available”:
 - Perform any anesthesia services that are interruptible and allow the anesthesiologist to re-establish direct contact with the patient to address urgent or emergent clinical situations.
 - Provide a personal break of short duration to a staff member

Title: Certified Registered Nurse Anesthetists'
Duties & Responsibilities

Policy
Number: SS8-009

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

1. The CRNA will be:
 - a. Licensed as a registered nurse in the Commonwealth of Virginia – Department of Health Professions Board of Nursing.
 - b. Certified by the American Association of Nurse Anesthetists.
2. The CRNA will provide anesthesia services under the medical direction or supervision of an Anesthesiologist on the staff of SFMC. A CRNA may not provide anesthesia services at St. Francis Medical Center without the Medical direction or supervision of a staff anesthesiologist.
3. The CRNA is responsible to the Anesthesiologist in all things pertinent to the anesthetic.
4. The CRNA may provide post anesthetic patient care in the PACU or hospital as necessary, document the problems and treatment initiated but will inform the supervising or directing Anesthesiologist as early and appropriate as possible, as determined by the clinical condition of the patient.
5. The CRNA may establish airways in emergency situations anywhere in the hospital.
6. The CRNA is responsible for preparing anesthesia related medication and for verifying functioning of all equipment that would ordinarily be use in a proposed anesthetic.
7. Evaluations and care delivered by the CRNA will be documented in the patient's record.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05

Title: Orientation

Policy
Number: SS8-010

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

1. Orientation for anesthesia personnel is the responsibility of Commonwealth Anesthesia Associates.
2. Departmental Orientation will include, but not be limited to, the following elements:
 - a. Review of the Anesthesia Department Policy & Procedures Manual.
 - b. Tour of the physical locations of the different departments utilizing anesthesia services, including the Operating Suites, Emergency Room, Radiology, Intensive Care, Obstetrical Suites, Cardiac Catheterization Lab, etc.
 - c. Familiarization with the location of drugs, equipment and supplies.
 - d. Instructions on:
 - i. Proper blood sample drawing, labeling and specimen dispatch to appropriate labs
 - ii. Controlled substance procurement and documentation
 - iii. Information system training
 - e. Documentation requirements for anesthetic patient care.
 - f. Government medical legal compliance procedures and documentation.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05

_____	_____
_____	_____

Title: General Policies & Procedures of the
Anesthesia Department

Policy
Number: SS8-011

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide for the general rules of conduct for the Anesthesia staff

POLICY:

The Anesthesia Department shall adhere to the following general policies and procedures:

1. The method, techniques and agents used in anesthetic administration will be determined by the anesthesia providers based upon the patient's condition and desires, the nature of the operative or other procedures, and the wishes of the surgeon.
2. Pre-operative preparation is a joint process between the surgeon, the anesthesiologist and other appropriate anesthesia provider. The patient will be seen as soon after admission as possible. This assessment is documented in the Medical Problems section of the Surgical Anesthesia Record. The evaluation is reviewed prior to induction of the anesthesia and post operatively.
3. The Anesthesia Consent Form is signed by the patient (or designee) and by the anesthesiologist.
4. The induction of anesthesia commences only after the operating surgeon has arrived in the Operating Suite and has spoken to his/her patient, site identified and consent signed. A record of anesthesia events is completed and remains in the patient's chart.
5. An anesthesiologist or other qualified anesthesia provider is always present when an anesthetized patient is undergoing an operative or other invasive procedure. He/she never leaves the patient until the patient is in a safe condition and the care may be transferred to another appropriate healthcare provider such as a nurse in the PACU or ICU.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 1/97, 8/05, 3/07

Title: Pre-Anesthesia Evaluation
Delineation of Anesthesia Care

Policy
Number: SS8-012

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

POLICY:

1. At St. Francis Medical Center, a pre-anesthesia evaluation will be performed by an anesthesia provider on every patient receiving anesthesia services, and this will be documented in the patient's medical record. This evaluation, for elective surgery patients, will ordinarily take place prior to pre-operative medication being administered, unless the circumstances of the particular situation would dictate otherwise. Whenever possible, inpatients will have an evaluation done the day before surgery by a member of the anesthesia staff.
2. Pre-Anesthesia Care Standards
 - a. Pre-Anesthesia evaluation must be performed within 48 hours prior to the induction of anesthesia.
 - b. A pre- anesthesia evaluation must be performed for every patient who receives a general, MAC or regional anesthesia.
 - c. Determine medical, anesthetic, and drug history.
 - d. Perform any examinations that would provide information that might assist in the decision regarding anesthetic risks and management. Indicate physical status (ASA definition).
 - e. Physical examination of the patient's airway, heart and lungs will be performed on all patients.
 - f. Order or review pertinent diagnostic tests.
 - g. Obtain consultation as necessary.
 - h. When this pre-anesthesia evaluation is conducted by a CRNA it will be reviewed and confirmed by an Anesthesiologist.
 - i. Formulate an anesthetic plan and discuss risk/benefits of the plan with the patient or the patient's legal representative.
 - j. Identify potential anesthesia problems (e.g. difficult airway, ongoing infection, limited vascular access).

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07

3. The pre-anesthesia medical record entry will ordinarily indicate the planned technique of anesthesia (i.e., general, spinal, or other regional). Exceptions to this can be made whenever the precise technique of anesthesia might be more appropriately determined in the operating suite where the precise immediate pre-operative status of the patient can be re-evaluated.

Title: Anesthesia Guidelines for Pre-Admission Testing

Policy Number: SS8-013

Date Revised: 08/08
 Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 7

PURPOSE:

To provide guidelines for the appropriate utilization of pre-admission testing (PAT) services, and facilitate the effective management of patients prior to surgery.

POLICY:

1. A pre-operative assessment with an RN from the PAT Department is highly recommended for any patient receiving anesthesia services.
2. A pre-procedure interview with the anesthesiologist may be scheduled at the request of the patient or surgeon if the patient presents with a history of anesthesia problems other than nausea or vomiting, excessive anxiety problems, and/or unusual fear of anesthesia. The surgeon or other physicians may request that the patient be seen, or the patient him/herself may request a special pre-procedure interview.
3. A pre-operative phone assessment is made by the PAT RN for patients not able to come to Pre Admission Testing.
4. Patients scheduled to undergo anesthesia (general, MAC, regional blocks, etc.) should be NPO after midnight.

ACCEPTABLE EXCEPTIONS

<u>Ingested Material</u>	<u>Minimum Fasting Period</u>
Clear Liquids	2 hours
Breast Milk	4 hours
Infant Formula	6 hours
Non-human milk	6 hours
Light Meal	6 hours

The above guidelines apply to patients of all ages. A light meal typically consists of toast and clear liquids.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07

_____	_____
_____	_____

5. It is preferred that the patient's Pre Admission Testing appointment be scheduled at least four (4) days prior to surgery, which facilitates the retrieval and review of lab work, EKG's and other diagnostic testing.

Anesthesia Pre-Operative Requirements

ANESTHESIA ORDERS: HOLDING AREA/PAT

Diagnostic Testing may be ordered by a PAT nurse prior to day of surgery as per the Anesthesia Guidelines of the Preadmission Testing Policy.

Diagnostic Studies

1. Urine Pregnancy Test
 - a. Last menses greater than 35 days.
 - b. Acknowledges possibility of pregnancy.
 - c. Desires a pregnancy test.
2. EKG required if history of:
 - a. CHF, Symptomatic Dysrhythmia, CAD, Angina, CVA, TIA, low functional capacity (unable to
 - b. climb a flight of stairs, carry groceries without SOB and/or CP), Renal Insufficiency (Serum
 - c. Creatinine > 2mg/dl), End Stage Renal Disease, HTN, Diabetes, Morbid Obesity, Cocaine, and/or IV drug use.
 - d. **A signed/interpreted EKG is good for 6 months if patient's medical condition is unchanged.**
3. PT/INR required if history of:
 - a. Liver Disease (Cirrhosis, Hepatitis B or C) active or chronic.
 - b. Undergoing Coumadin Therapy.
4. PTT required if history of:
 - a. Liver Disease (as above).
 - b. Undergoing Heparin Therapy.
5. CBC with platelets required if history of:
 - a. Renal insufficiency, End Stage Renal Disease, Liver disease, TURP, TUR-Bladder Tumor,
 - b. Anemia, high-risk surgery, major abdominal surgery, surgery with potential large blood
 - c. loss, lumbar or cervical laminectomy, or large bone osteotomy.
6. CMP if history of:
 - a. Liver Disease (Cirrhosis, active/Chronic Hepatitis B or C).
7. BMP if history of:
 - a. Diabetes, HTN, High-risk surgery, End Stage Renal Disease, Renal Insufficiency, Lupus or any other connective tissue disease, patients taking Digoxin or any Diuretic within 2 weeks of surgical procedure.
 - b. **Labs are good for 6 months if patient's medical condition is unchanged.**
8. Chest X-ray required if:
 - a. Productive cough, fever, history of positive PPD, or specifically ordered by a physician.

Exceptions:

- CBC day of surgery if actively bleeding.
- Finger stick blood glucose day of surgery if diabetic.
- Electrolytes day of surgery if end stage renal disease.

PRE-OPERATIVE ALGORITHM FOR CARDIAC EVALUATION FOR PATIENTS UNDERGOING NON-CARDIAC SURGERY**Definitions****1. Major Clinical Risk Factors**

- a. Unstable Angina or Recent MI (7-30 days)
- b. Decompensated Congestive Heart Failure (CHF)
- c. Significant Arrhythmias - High grade AV block, Symptomatic ventricular, SB, SVT
- d. Severe Valvular Disease
 - i. Aortic - gradient greater than 40 mm Hg, area less than 1 cm², symptomatic (chest pain, CHF, arrhythmias)
 - ii. Mitral – CHF

2. Clinical Risk Factors

- a. History of ischemic heart disease
MI, positive stress test, chest pain because of ischemia, nitrate use, prior EKG with diagnostic Q waves.
- b. History of compensated or prior heart failure, compensated CHF
History of CHF, paroxysmal nocturnal dyspnea, positive CXR, rales or S3 on exam
- c. History of cerebrovascular disease - history of TIA or stroke
- d. Diabetes Mellitus
- e. Renal Insufficiency - serum creatinine greater than 2 mg/dl

3. Procedures

- a. Vascular Surgery - Aortic, other major vascular, peripheral vascular
- b. Intermediate - intraperitoneal, thoracic, head & neck, orthopedic, prostate
- c. Low - endoscopy, superficial, cataract, breast, “ambulatory”

4. Minor Predictors (not proven to independently increase perioperative risk)

- a. Advance age (greater than 70)
- b. Abnormal EKG (LVH, LBBB, ST abnormalities)
- c. Rhythms other than sinus
- d. Uncontrolled hypertension

5. Guidelines for EKG

- a. Vascular surgery
- b. Intermediate surgery with 1 or more risk factors
- c. NOT for patients who are asymptomatic and undergoing low risk procedures

PRE-OPERATIVE ALGORITHM FOR CARDIAC EVALUATION FOR PATIENTS UNDERGOING NON-CARDIAC SURGERY

Functional Capacity:

Fleisher et al: ACC/AHA 2007 Perioperative Guidelines

Table 3: Estimated Energy Requirements for Various Activities

1 MET	Can you...	4 METs	Can you...
↓	Take care of yourself?	↓	Climb a flight of stairs or walk up a hill?
	Eat, dress, or use the toilet?		Walk on level ground at 4mph (6.4kph)?
	Walk indoors around the house?		Run a short distance?
	Walk a block or 2 on level ground at 2 to 3 mph (3.2 to 4.8 kph)?		Do heavy work around the house like scrubbing floors or lifting/moving heavy furniture?
	Do light work around the house like dusting or washing dishes?		Participate in moderate recreational activities like golf, bowling, dancing, doubles tennis, or throwing a baseball or football?
			Participate in strenuous sports like swimming singles tennis, football, basketball or skiing?
4 METs		Greater than 10 METs	

kph indicates kilometers per hour; metabolic equivalent; and mph, miles per hour.

*Modified from Hlatky et al. (10) copyright 1989, with permission from Elsevier, and adapted from Fletcher et al. (11)

PRE-OPERATIVE ALGORITHM FOR CARDIAC EVALUATION

Step 1

Emergency?

Yes - to OR

No - go to step 2

Step 2

Does the patient have a **major clinical risk factor**?

Yes - Refer/Evaluate

No - go to step 3

Step 3

Is the patient **having low risk surgery**?

Yes - to OR

No - go to step 4

Step 4

Does the patient have **good functional capacity** (MET level greater than or equal to 4 without symptoms)?

Yes - to OR

Step 5

Poor or unknown - functional status

3 or more clinical risk factors:

Vascular Surgery - consider testing if it will change intra-operative management

Intermediate Risk Surgery - Proceed to OR with Beta blockers or refer if it will change intra-operative management

1 or 2 clinical risk factors:

Vascular Surgery - Proceed to OR or refer if it will change intra-operative management

Intermediate Risk Surgery - Proceed to OR with Beta blockers or refer if it will change intra-operative management

No Clinical risk factors:

Proceed to OR

References:

ACC/AHA 2007 Guidelines on Peri-operative Cardiovascular Evaluation and Care for Non-Cardiac Surgery; Executive Surgery. Derivation & Prospective Validation of a Simple Index for Prediction of Cardiac Risk of Major Non-Cardiac Surgery, Lee et al, 1999.

Pre-Operative Algorithm for Cardiac Evaluation

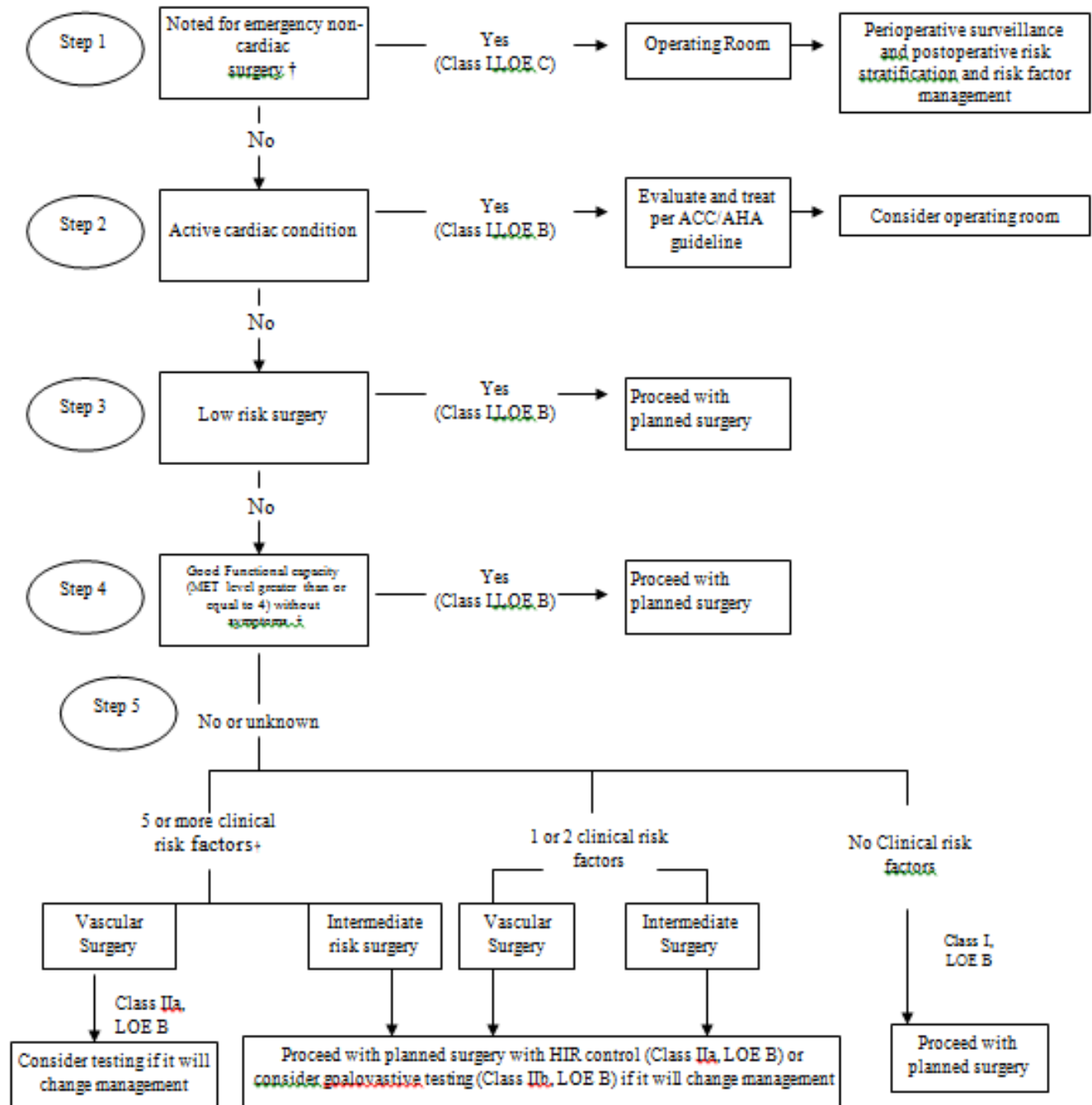


Figure 1. Cardiac evaluation and care algorithm for noncardiac surgery based on active clinical conditions, known cardiovascular disease, or cardiac risk factors for patients 50 years of age or greater. † See Table 2 for active clinical conditions. † See Table 3 for estimated MET level equivalent† Clinical risk factors include (schemic heart disease, compensated or prior heart failure, diabetes mellitus, renal insufficiency, and cerebrovascular disease. Consider peroperative beat blockade (see Table 5) for populations in which that has been shown to reduce cardiac morbidity/mortality. ACC/AHA indicates American College of Cardiology/American Heart Association HR heart rate; LOE, level of evidence; and MET, metabolic equivalent.

History & Physical for Outpatient Operative and Other Procedures

A history is required regardless of the type of anesthesia or sedation planned or given, as well as, when no anesthesia is given. The history must, at a minimum, include documentation of: indications/symptoms for surgical procedure; current medication and dosages; any known allergies, including medications reaction; and existing comorbid conditions, if any. The extent of documentation required in the physical examination is to be reflective of the type of anesthesia or sedation planned and/or given, according to the following:

1. No anesthesia, or topical, local or regional block
 - a. assessment of mental status; and
 - b. an examination specific to the procedure propose to be performed and any comorbid conditions

2. IV Sedation
 - a. assessment of mental status; and
 - b. an examination specific to the procedure propose to be performed and any comorbid conditions
 - c. examination of the heart and lungs by auscultation

3. General, Spinal or Epidural Anesthesia
 - a. assessment of mental status; and
 - b. an examination specific to the procedure propose to be performed and any comorbid conditions
 - c. examination of the heart and lungs by auscultation
 - d. assessment and written statement about the patient's general condition

The History and Physical must have been completed 30 days or less prior to the surgical procedure and if greater than 24 hours old, must have an update statement written on the form and signed by the procedural physician.

When a patient is readmitted within 30 days for the same or related problem, an interval history and physical examination reflecting any subsequent changes may be used in the medical record provided the original information is readily available.

Title: ASA Classification System

Policy
Number: SS8-014

Date
Revised: 3/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

The ASA classifications are as follows:

- ASA I No organic, physiologic, biochemical or psychiatric disturbance. Normal healthy patient.
- ASA II Mild-moderate systemic disturbance; may or may not be related to reason for surgery (i.e., hypertension, diabetes mellitus)
- ASA III Severe systemic disturbance (i.e., heart disease, poorly controlled hypertension)
- ASA IV Life threatening systemic disturbance (i.e., congestive heart failure, persistent angina pectoris)
- ASA V Moribund patient, little chance for survival, surgery is last resort (i.e., uncontrolled bleeding, ruptured abdominal aortic aneurysm)
- ASA VI Declared brain dead patient whose organs are being removed for donor purposes.
- E Patient requires emergency procedure (i.e., appendectomy, D&C for uncontrolled bleeding)

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05

Title: Intraoperative Anesthesia Monitoring
& Documentation

Policy
Number: SS8-015

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

POLICY:

1. A careful and thorough check of all anesthesia equipment and supplies will be done by the anesthesia provider prior to use on each case.
2. All reusable anesthesia equipment in direct contact with patient will be checked for cleanliness prior to use.
3. Each patient's vital signs will be evaluated and documented immediately prior to the induction of anesthesia.
4. Intraoperative monitoring will be consistent with "Standards for Basic Monitoring" published and affirmed by the American Society of Anesthesiologists.
5. An operative anesthesia record will be kept for every patient who receives general, MAC or regional anesthesia, and will include:
 - a. Patient name and identification numbers; name(s) of the anesthesia providers; anesthesia technique used and use of any airway or intravenous devices
 - b. Documentation that demonstrates that:
 1. prior to the initiation of anesthesia, patient re-evaluation was performed
 2. a check of anesthetic equipment, drugs, and gas supply was performed
 - c. Time based documentation of vital signs as well as oxygenation and ventilation parameters
 - d. Amounts of drugs and agents used, and times of administration
 - e. The type and volumes of intravenous fluids administered including blood and blood products and times of administration

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05; 3/07

_____	_____
_____	_____

- f. Techniques used
- g. Unusual events during the administration of anesthesia
- h. The status of the patient at the conclusion of anesthesia
- i. Documentation of the anesthesiologist degree of participation in the anesthetic for medical billing and governmental review
- j. List any complications, adverse reactions, or problems that occur during the anesthesia (include time, symptoms, vital signs, treatment, and patient's response).

STANDARDS FOR BASIC ANESTHETIC MONITORING

Committee of Origin: Standards and Practice Parameters

**(Approved by the ASA House of Delegates on October 21, 1986, and last amended on
October 20, 2010 with an effective date of July 1, 2011)**

These standards apply to all anesthesia care although, in emergency circumstances, appropriate life support measures take precedence. These standards may be exceeded at any time based on the judgment of the responsible anesthesiologist. They are intended to encourage quality patient care, but observing them cannot guarantee any specific patient outcome. They are subject to revision from time to time, as warranted by the evolution of technology and practice. They apply to all general anesthetics, regional anesthetics and monitored anesthesia care. This set of standards addresses only the issue of basic anesthetic monitoring, which is one component of anesthesia care. In certain rare or unusual circumstances, 1) some of these methods of monitoring may be clinically impractical, and 2) appropriate use of the described monitoring methods may fail to detect untoward clinical developments. Brief interruptions of continual† monitoring may be unavoidable. These standards are not intended for application to the care of the obstetrical patient in labor or in the conduct of pain management.

1. STANDARD I

Qualified anesthesia personnel shall be present in the room throughout the conduct of all general anesthetics, regional anesthetics and monitored anesthesia care.

1.1 Objective –

Because of the rapid changes in patient status during anesthesia, qualified anesthesia personnel shall be continuously present to monitor the patient and provide anesthesia care. In the event there is a direct known hazard, e.g., radiation, to the anesthesia personnel which might require intermittent remote observation of the patient, some provision for monitoring the patient must be made. In the event that an emergency requires the temporary absence of the person primarily responsible for the anesthetic, the best judgment of the anesthesiologist will be exercised in comparing the emergency with the anesthetized patient's condition and in the selection of the person left responsible for the anesthetic during the temporary absence.

2. STANDARD II

During all anesthetics, the patient's oxygenation, ventilation, circulation and temperature shall be continually evaluated.

2.1 Oxygenation –

2.1.1 Objective –

To ensure adequate oxygen concentration in the inspired gas and the blood during all anesthetics.

STANDARDS FOR BASIC ANESTHETIC MONITORING

2.2 Methods –

- 2.2.1 Inspired gas: During every administration of general anesthesia using an anesthesia machine, the concentration of oxygen in the patient breathing system shall be measured by an oxygen analyzer with a low oxygen concentration limit alarm in use.*
- 2.2.2 Blood oxygenation: During all anesthetics, a quantitative method of assessing oxygenation such as pulse oximetry shall be employed.* When the pulse oximeter is utilized, the variable pitch pulse tone and the low threshold alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.* Adequate illumination and exposure of the patient are necessary to assess color.*

3. VENTILATION

3.1 Objective –

To ensure adequate ventilation of the patient during all anesthetics.

3.2 Methods –

- 3.2.1 Every patient receiving general anesthesia shall have the adequacy of ventilation continually evaluated. Qualitative clinical signs such as chest excursion, observation of the reservoir breathing bag and auscultation of breath sounds are useful. Continual monitoring for the presence of expired carbon dioxide shall be performed unless invalidated by the nature of the patient, procedure or equipment. Quantitative monitoring of the volume of expired gas is strongly encouraged.*
- 3.2.2 When an endotracheal tube or laryngeal mask is inserted, its correct positioning must be verified by clinical assessment and by identification of carbon dioxide in the expired gas. Continual end-tidal carbon dioxide analysis, in use from the time of endotracheal tube/laryngeal mask placement, until extubation/removal or initiating transfer to a postoperative care location, shall be performed using a quantitative method such as capnography, capnometry or mass spectroscopy.* When capnography or capnometry is utilized, the end tidal CO₂ alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.*
- 3.2.3 When ventilation is controlled by a mechanical ventilator, there shall be in continuous use a device that is capable of detecting disconnection of components of the breathing system. The device must give an audible signal when its alarm threshold is exceeded.
- 3.2.4 During regional anesthesia (with no sedation) or local anesthesia (with no sedation), the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure, or equipment.

STANDARDS FOR BASIC ANESTHETIC MONITORING

4. CIRCULATION

4.1 Objective –

To ensure the adequacy of the patient's circulatory function during all anesthetics.

4.2 Methods –

- 4.2.1 Every patient receiving anesthesia shall have the electrocardiogram continuously displayed from the beginning of anesthesia until preparing to leave the anesthetizing location.*
- 4.2.2 Every patient receiving anesthesia shall have arterial blood pressure and heart rate determined and evaluated at least every five minutes.*
- 4.2.3 Every patient receiving general anesthesia shall have, in addition to the above, circulatory function continually evaluated by at least one of the following: palpation of a pulse, auscultation of heart sounds, monitoring of a tracing of intra-arterial pressure, ultrasound peripheral pulse monitoring, or pulse plethysmography or oximetry.

5. BODY TEMPERATURE

5.1 Objective –

To aid in the maintenance of appropriate body temperature during all anesthetics.

5.2 Methods –

Every patient receiving anesthesia shall have temperature monitored when clinically significant changes in body temperature are intended, anticipated or suspected.

† Note that “continual” is defined as “repeated regularly and frequently in steady rapid succession” whereas “continuous” means “prolonged without any interruption at any time.”

* Under extenuating circumstances, the responsible anesthesiologist may waive the requirements marked with an asterisk (*); it is recommended that when this is done, it should be so stated (including the reasons) in a note in the patient's medical record.

Title: Responsibility – Patient Not Admitted
To PACU

Policy
Number: SS8-016

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide guidelines for the care of patients not admitted to the PACU post-procedure.

POLICY:

1. Under certain conditions, or when it is in the best interest of the patient, the patient may be taken directly to a special care unit, the floor, direct admit to Stage II, or discharged without being first being admitted to PACU.
 - a. Patients receiving local anesthesia or MAC do not have to be admitted to the PACU; may go to Stage II.
 - b. Patients in critical condition and those with multiple lines, patients requiring prolonged ventilator assistance, cardiac surgery patients, or any patient whose condition would be jeopardized by multiple stops/moves may bypass the PACU and be admitted directly to a critical care unit. The anesthesiologist in consultation with the attending surgeon will make this determination.
 - c. A comparable standard of post anesthesia care is delivered regardless of whether or not the patient has been initially recovered in the PACU. Written standards of care for ICU, PSU, CCU, PCCU or any other special care unit reflect comparable care and are strictly adhered to.
 - d. The anesthesiologist may request the assistance of a PACU nurse in the special care unit. All applicable standards are followed to ensure appropriate delivery of patient care.
2. It is the responsibility of the Anesthesia Department to determine the appropriate post anesthesia care needs of patients.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 1/97, 8/05

Title: Protocol for Outpatient Surgery in
Surgical Services

Policy
Number: SS8-017

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide guidelines for the appropriate management of patients undergoing outpatient surgical procedures

POLICY:

1. Outpatients are prepared for surgery in the Holding Area, AM Admit area, or Ambulatory Surgery Holding Area.
2. Outpatients are discharged from the second stage recovery area when discharge criteria have been met with a copy of appropriate discharge instructions.
3. Outpatients undergoing general, regional anesthesia, or MAC shall have:
 - a. current recommended labs according to policy;
 - b. a short form history and physical examination;
 - c. any other tests which may be medically indicated.
4. Decisions related to pre-operative medication and planned anesthesia techniques are at the discretion of the anesthesiologist.
5. The decision to discharge an outpatient is the joint responsibility of the surgeon and anesthesiologist. Appropriate discharge criteria developed and approved by the Medical Staff are utilized to assist in decision making.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 93, 96, 1/97, 8/05

Title: Infection Control Responsibilities

Policy
Number: SS8-018

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

POLICY:

- a. Anesthesia personnel will follow all appropriate infection control measures for the Operating Suites (OR) and the Post Anesthesia Recovery Unit (PACU).
- b. Strict hand-washing will be observed at all times between different patient contacts.
- c. Anesthesia personnel will abide by the scrub suit dress code of the Operating Suites (OR).
- d. Disposable anesthesia patient care supplies will be used whenever possible.
- e. Reusable items will be properly disinfected using steamed, gas or cold sterilization prior to reuse.
- f. Anesthesia machines will be cleaned with a hospital approved germicide at the completion of each case and when soiled during a procedure.
- g. Patients with active airborne communicable disease processes (MRSA, TB, Varicella, etc.) will be cared for and appropriately isolated, based on the specific organism suspected or diagnosed.
- h. Standard precautions will be observed at all times and there will not be any direct contact with a patient's blood, body fluids and/or excretions.
- i. Central Lines will be placed in accordance with CDC guidelines, as follows:
 - a. Appropriate Skin Preparation
 - i. Chlorhexidene gluconate (CHG) for patients \geq 2 months old (completely dry before Central Line insertion)
 - ii. Povidone iodine, alcohol, CHG or other specified for children $<$ 2 months old (completely dry before Central Line insertion).
 - b. Appropriate Hand Hygiene will be performed by provider

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05, 3/07

- c. All 5 maximal sterile barriers will be used:
 - i. Sterile gloves
 - ii. Sterile gown
 - iii. Cap
 - iv. Mask
 - v. Large sterile body drape

- d. The Central Line Checklist will be completed on each patient receiving a central line.

Central Line Insertion Bundle Checklist

Date: ___/___/___ Start time: _____ Location: _____

Catheter Type: Dialysis Central Venous PICC Pulmonary Artery # of Lumens _____

Insertion Site: Jugular: R L Upper Arm: R L Subclavian: R L Femoral: R L

Reason for Insertion: Emergent IV Access Replace Malfunctioning/Infected Catheter Dialysis Access

Procedure Provider: _____ Procedure Assistant: _____

- Physician donned sterile gown prior to procedure: yes no
- Physician washed/sanitized hands prior to donning sterile gloves: yes no
- Physician wore mask/faceshield during procedure: yes no
- Physician wore cap during procedure: yes no
- Nurse assisting Physician wore gown, cap and mask w/ faceshield during procedure: yes no
- Head to toe sterile drape was applied to patient: yes no
- Chlorhexidine scrub was done for at least 30 seconds and allowed to dry: yes no
- Was sterile technique maintained during procedure: yes no
- Was ultrasound used for guidance: yes no
- Catheter secured: suture device
- Biopatch applied at insertion site: yes no
- Occlusive dressing applied to insertion site: yes no
- Dressing labeled with date and time of insertion: yes no
- Education provided to patient/family yes no:
- Education documented in chart yes no

Comments _____

Individual completing form: _____

This form is to be completed on all Central line insertions in SFMC.

Please return all completed forms to Infection Control

Title: Anesthesia – Infection Control Guidelines

Policy
Number: SS8-019

Date
Revised: 11/11
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

To provide cleaning, disinfection, and/or sterilization measures to decrease the risk of infections to patients from anesthesia equipment.

POLICY:

1. The Department of Anesthesia abides by all applicable federal, state, hospital and departmental infection control regulations and/or policies and procedures.
2. The following guidelines apply to anesthesia related supplies:
 - a. Whenever possible, disposable anesthesia equipment will be used. All disposable items will be discarded according to hospital guidelines.
 - b. Equipment (i.e., anesthesia machine, carts and monitors) not in contact with mucous membranes, or non-intact skin will be cleaned and decontaminated when contaminated, or at the conclusion of each day with a hospital approved disinfectant.
 - c. Single-use, disposable breathing circuits will be changed between patients. Face masks, endotracheal tubes/airways, and stylets are disposed of after use.
 - d. Laryngoscopy blades, forceps, airways, connectors, masks and any other reusable anesthesia supply item will be cleaned with an approved high level disinfection method and then single package in a plastic bag for re-use.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 12/93, 12/96, 1/97, 8/05, 3/07, 09/10

- e. Sharps, needles, and syringes will be discarded according to hospital regulated medical waste policy.
 - f. Replacement of soda lime and cleaning absorbers will take place per manufacturers' recommendations.
3. Anesthesia machines and other equipment are wiped down with germicide daily and when visibly soiled.

Title: Policies to Ensure the Safe Administration
Of Anesthetic Agents

Policy
Number: SS8-020

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

1. Anesthesia equipment will be inspected and tested by an anesthesia provider before patient use. If a defect that might materially affect the safe functioning of the equipment is observed, the equipment is not used until the fault is repaired. Equipment that might have a defect of this sort will be clearly tagged with the noted defect and the date, and the appropriate service individual (Biomed or Engineering) will be notified as soon as possible, and the repair effected as soon as possible.
2. No flammable anesthesia agents are to be used for anesthesia or the pre-operative preparation of the surgical field. If laser surgery is being performed, all the usual precautions to prevent unwanted combustion will be carried out within the limits of the equipment available.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05

Title: Anesthesia Apparatus Check
Recommendations

Policy
Number: SS8-021

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

1. It will be the responsibility of the anesthesia provider administering anesthesia to check all anesthesia equipment and supplies prior to use.
2. See attached checklist for additional details.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07



ANESTHESIA APPARATUS CHECKLIST

Date: _____ Location/OR Room: _____

Anesthetist: _____ Anesthesia Machine #: _____

Emergency Ventilation Equipment:

- Backup ventilation equipment is available and functioning

High Pressure System:

- Check oxygen cylinder supply
 - Open O₂ cylinder and verify at least half full (about 1000 psi)
 - Close cylinder
 - Replace any cylinder with less than 600 psi
- Check central pipeline supplies
 - Hoses are connected and pipeline gauges read about 50 psi

Low Pressure System:

- Check initial status of low pressure system
 - Close flow control valves and turn vaporizers off
 - Check full level and tighten vaporizers' filler caps
- Perform leak check of machine low pressure system
 - Verify that machine master switch and flow control valves are OFF
 - Attach "suction bulb" to common fresh gas outlet
 - Squeeze bulb repeatedly until fully collapsed
 - Verify bulb stays collapsed for at least 10 seconds
 - Open one vaporizer at a time and repeat the last two (2) steps above
 - Remove suction bulb and reconnect fresh gas hose



Turn on Machine Master Switch and All Other Necessary Electrical Equipment:

- Inspired gas analyzer unit
- Pulse oximetry
- EKG/BP monitor, etc.
- Electrical equipment requiring warm-up
- Ensure undamaged flowmeters, vaporizers, gauges, breathing system and supply hoses

Test Flow Meters:

- Adjust flow of all gases through their full range, checking for smooth operation of floats and undamaged flowtubes
- Attempt to create a hypoxic O₂/N₂O mixture and verify correct changes in flow and/or alarms
- Check that the float is at the bottom of the tube with flow control valves closed (or at a minimum oxygen flow if so equipped)

Adjust and Check Scavenging System:

- Ensure proper connections between scavenging systems and both APL (pop-off) valve and ventilator relief valve
- Adjust waste gas vacuum (if possible)
- Fully open APL valve and occlude Y-piece
- With minimum O₂ flow, allow scavenger reservoir bag to collapse completely and verify that absorber pressure gauge reads about zero
- With O₂ flush activated, allow the scavenger reservoir bag to distend fully, and then verify that absorber pressure gauge reads less than 10 cm H₂O

Calibrate O₂ Monitor:

- Calibrate oxygen monitor to read 21% room air
- Low O₂ alarm is enabled and functioning
- Reinstall sensor in circuit and flush breathing system with 100% O₂
- Verify that monitor now reads greater than 90%



Check Initial Status Breathing System:

- Set selector switch to "bag" mode
- Check the breathing circuit is complete, undamaged, unobstructed
- Verify that CO₂ absorbent is adequate
- Install breathing circuit accessory equipment (i.e., humidifier, PEEP valve) to be used during the case
- Ensure correct mounting of cylinders in yokes and presence of cylinder wrench

Perform Leak Check of the Breathing System:

- Set all gas flows to zero (or minimum)
- Close APL (pop-off) valve and occlude Y-piece
- Pressurize breathing system to about 30 cm H₂O with O₂ flush
- Ensure that pressure remains fixed at least 10 seconds
- Open APL (pop-off) valve and ensure that pressure decreases

Test Ventilation Systems and Unidirectional Valves:

- Place a second breathing bag on Y-piece
- Set appropriate ventilator parameters for next patient
- Switch to automatic ventilation (ventilator) mode
- Fill bellows and breathing bag with O₂ flush and then turn ventilator ON
- Set O₂ flow to minimum, other gas flows to zero
- Verify that during inspiration, bellows delivers appropriate tidal volume and that during expiration, bellows fills completely
- Set fresh gas flow to about 5 liters per mm
- Verify that the ventilator bellows and simulated lungs fill and empty appropriately without sustained pressure at end expiration
- Check for proper action of unidirectional valves
- Exercise breathing circuit accessories to ensure proper function
- Turn ventilator OFF and switch to manual ventilation (Bag/APL) mode



- Ventilate manually and assure inflation and deflation of artificial lungs and appropriate feel of system resistance and compliance
- Remove second breathing bag from Y-piece

Check, Calibrate and/or Set Alarm Limits of All Monitors:

- Capnometer
- Oxygen analyzer
- Pulse oximeter
- Respiratory volume monitor (spirometer)
- Pressure monitor with high and low airway alarms
- Temperature monitor

Check Final Status of Machine:

- Vaporizers off
- APL valve open
- Selector switch to "bag"
- All flowmeters to zero
- Patient suction level adequate
- Breathing system ready to use

Note: If an anesthesia provider uses the same machine in successive cases, these steps need not be repeated or may be abbreviated after the initial checkout.

Anesthesia Equipment/Supplies:

- Appropriate masks, breathing system, head strap available
- Appropriate airways
- Laryngoscopes and blades tested
- Appropriate tracheal tubes available with functioning cuffs
- Stylet available
- Availability of bottled inhalation anesthetics
- Appropriate hypnotics and muscle relaxants available



- Availability of emergency medications
- Availability of appropriate IV fluids
- Stethoscope

Problems: _____

Follow-up: _____

Title: Malignant Hyperthermia

Policy
Number: SS8-022

Date
Revised: 03/13
Reviewed: 01/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

To provide guidelines for the management of Malignant Hyperthermia

DEFINITION:

Malignant Hyperthermia is a rare but potentially fatal complication of anesthesia. Prompt and aggressive therapy with Dantrolene Na and established protocols may produce, but cannot guarantee a favorable outcome.

RESPONSIBLE STAFF:

Anesthesiologists, CRNAs, Surgery Staff with the case (RN, ST, SA), Anesthesia Technician, and other available staff. All surgical services staff shall be familiar with MH protocol and completed an annual review of Malignant Hyperthermia treatment protocol.

POLICY:

1. Malignant Hyperthermia (MH) will be diagnosed and managed according to the latest guidelines and/or recommendations of the Malignant Hyperthermia Association of the United States (MHAUS). Questions regarding Malignant Hyperthermia management should be referred to the MH Hotline (1-800-MH-HYPER) or on the web at (www.mhaus.org).
2. An MH cart will be immediately available in both the Ambulatory Surgery Center and Main Operating Room and will contain at a minimum:
 - a. 18 bottles of Dantrolene Na. (There will be a total of 36 vials across both surgical areas, with additional Dantrolene available in the pharmacy.)
 - b. Fluids necessary for reconstitution of Dantrolene Na (Sterile Water, preservative free).
 - c. All equipment and supply necessary for administration of Dantrolene Na.
 - d. Additional supply and medications as per MHAUS recommendations.
 - e. A copy of the latest MHAUS treatment protocol.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 1/97, 8/05, 8/06; 04/12; 03/13

3. The crash cart with resuscitation drugs and equipment will be readily available.
4. Refrigerated saline solutions, IV and Irrigation, will be immediately available.

PROCEDURE:

1. Stop the use of inhalation agents/succinylcholine and terminate the surgical procedure as quickly as possible.
2. Immediately summon help to the room, retrieve the Malignant Hyperthermia Cart, refrigerated saline solutions, and Crash Cart.
3. Begin MHAUS treatment protocol.
 - a. Assign at least 2 RNs to mix Dantrolene Na as directed by the anesthesia provider.
 - b. Establish communication with MHAUS, if necessary, (1-800-644-9737)

Title: Sentinel Event

Policy
Number: SS8-023

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

Unexpected events or occurrences involving death or serious physical or psychological injury, or the risk thereof (i.e., sentinel events), are to be reported to the Quality Management Department immediately upon identification. Any sentinel event requires immediate action to examine, in-depth, the event to determine why the incident occurred and how to reduce the likelihood of recurrence.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05

Title: Anesthesia Awareness

Policy
Number: SS8-024

Date
Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 3

PURPOSE STATEMENT:

To reduce the occurrence of unintended intraoperative awareness with recall of intraoperative events following the administration of general anesthesia and to appropriately respond to those patients who report such events.

RESPONSIBLE PERSONS:

Anesthesia personnel.

POLICY STATEMENT:

Anesthesia practitioners will make every attempt to reduce the likelihood of unintended anesthesia awareness and, should it occur, to manage the impact of awareness for the patient. Reduction of the likelihood of unintended anesthesia awareness will be addressed in the following ways:

PROCEDURE:

A. Education of Clinical Staff:

All clinical staff involved in the care of operative patients will be educated about unintended anesthesia awareness. This includes surgeons, anesthesia practitioners, OR, OPNU, and PACU nursing staff. Education will include the following:

1. Incidence and likelihood of unintended anesthesia awareness events.
2. Identification of at risk patients.
3. Risk reduction strategies minimize risks of these events.
4. Management of patients for whom those events occur.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07

B. Identification of Patients at Risk:

While it is possible that any patient undergoing general anesthesia will be at some finite risk for experiencing awareness with recall, certain pre-existing factors and/or co-morbidities may predispose some patients to greater risk. These include:

1. Hemodynamic instability secondary to blood loss or organ dysfunction (e.g., major trauma or sepsis).
2. Presence of significant cardiac dysfunction (e.g., acute MI, cardiomyopathy, high degree of heart block unresponsive to pressors).
3. Use of psychotropic, narcotic, or other neuromodulating medications preoperatively. These drugs may increase anesthetic requirements.
4. Use of sympatholytic medications (beta-blockers, clonidine, calcium channel blockers), which may mask sympathetic response to stimulation.
5. Patients with a previous history of awareness.
6. Malfunction of anesthesia equipment.

C. Reducing the Risk of Awareness:

The most important factor in reducing awareness is the education of practitioners and patients alike regarding its possibility and the factors mentioned above, which may increase its likelihood. In the presence of these factors, steps, which may decrease the incidence of awareness, include:

1. Thorough familiarization with the patient's history and preoperative medications immediately prior to anesthetic induction by all members of the anesthesia care team.
2. Administration of preoperative medication to include amnestic drugs such as benzodiazepines or scopolamine, dose-adjusted to "effect" (e.g., a change in sensorium prior to anesthetic induction).
3. Administration of sufficient hypnotic (Propofol, thiaobarbiturate, etomidate or ketamine) to last beyond the time of airway instrumentation.
4. Sufficient fresh gas flows, initial vaporizer settings, and alveolar ventilation to rapidly achieve end-tidal concentrations of potent volatile agents consistent with the production of amnesia (e.g., 0.4-0.5 MAC).
5. Avoid prolonged muscle paralysis (e.g., beyond endotracheal intubation) whenever possible.
6. Assure the proper functioning of anesthesia equipment and monitors on a regular basis, both intra-operatively and between cases.
7. Consider the utilization of BIS (Bispectral Index) or other processed EEG monitors as an adjunctive tool for the monitoring of anesthesia depth, *especially in high-risk patients*.
8. Maintenance of sufficient anesthetic depth near the end of the procedure when surgical stimulus is reduced.
9. Alerting all members of the surgical team before the procedure (or immediately after induction, e.g., during "time-out") of the patient's heightened risk and/or concern regarding awareness.

D. Managing the Impact of Awareness During General Anesthesia:

In the absence of a completely reliable monitor for anesthesia awareness, it is unlikely that awareness can be completely prevented. Healthcare practitioners, in particular the members of A peri-operative team, must therefore be prepared to acknowledge and manage the occurrence of unintended intraoperative anesthesia awareness with compassion and diligence.

A healthcare practitioner who becomes aware that a patient has reported the experience of unintended anesthesia awareness should take the following steps.

1. Interview the patient after the procedure, soliciting a detailed account of the experience and recording it in the medical record. Questions to be asked should include:
 - What is the last thing you remember before going to sleep?
 - What is the first thing you remember when you woke up?
 - Do you remember anything between going to sleeping and waking up?
 - Did you dream during your procedure?
 - What was the worst thing about your operation?
2. Assure the patient of the credibility of his or account and sympathize with the patient's suffering.
3. Notify the attending anesthesiologist as soon as possible.
4. Fill out a notification report regarding the patient's report of anesthesia awareness.

The attending anesthesiologist will assume responsibility for gathering additional information and taking further actions. These actions may include but are not limited to the following:

- Apologize to the patient if anesthesia awareness has occurred.
- Explain what happened and its reasons (e.g., light anesthesia was necessarily used due to the patient's medical condition).
- Offer the patient psychological support, including referral of the patient to a psychiatrist or psychologist.
- Notify the patient's surgeon, nurse/s, and other key personnel about the incident and subsequent interview with the patient.

Title: Quality Assessment

Policy
Number: SS8-025

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 2

PURPOSE:

To provide a mechanism for monitoring and evaluating the quality, safety and appropriateness of services provided by the Anesthesia Department. To improve quality through on-going process improvement and the resolution of identified problems.

POLICY:

The department Chair has ultimate responsibility for quality improvement activities conducted by the Department of Anesthesia. The Chair may delegate specific activities to other qualified members of the Anesthesia Department as appropriate.

PROCEDURE:

1. Monitoring and evaluation are accomplished in the following manner:
Routine collection of information from operative records, quality occurrence reports, departmental logs and other resources related to the care of the patient. Monitoring and evaluation is both concurrent and retrospective.
2. The criteria established for evaluating standards of care is based on national standards, as well as hospital and departmental policy, rules and regulations.
3. Results of monitoring, evaluating and problem solving activities are documented and reported to the appropriate hospital and medical staff quality improvement committees.
4. When problems in patient care or opportunities to improve care are identified:
 - a. Results from monitoring are used to develop and revise policy and procedure, and to schedule appropriate educational programs.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia
Committees and Dates: 8/05

- b. Monitoring is ongoing until such time as it is determined that actions to resolve the problem or improve care have resulted in positive improvements.
- c. Periodic review of indicators is part of the annual review of the departmental quality improvement plan. Existing indicators are evaluated for continued appropriateness and new indicators may be implemented as necessary.

Title: Anesthesia Quality Improvement

Policy
Number: SS8-026

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

OBJECTIVES:

To define the process for identifying, evaluating, and trending adverse anesthesia events. To monitor adverse events and/or reversal cases from areas where Sedation Analgesia is administered.

POLICY STATEMENT:

The managing anesthesia provider or PACU nurse completes an Anesthesia Quality Improvement form for all patients.

RESPONSIBLE PERSONS:

Anesthesia staff, Quality Management staff and PACU staff.

PROCEDURE:

1. Anesthesia Quality Improvement sheet to be filled out on all cases.
2. Completed sheets sent to the QI Manager (QIM).
3. Prior to the scheduled anesthesia meeting, completed sheets are sent to the Chair of Anesthesia or a QI designated physician (QIP) for review.
4. QIP notifies the responsible anesthesia provider about the review.
5. QIP or designee (not the responsible provider) reviews the cases and writes an account of the event.
6. QIP sends the completed, reviewed sheets back to QIM.
7. QIM places these on the agenda and will bring the charts selected to the Quarterly Anesthesiology QI Meeting.
8. Selected cases are discussed in an educational forum at the QI meeting and the QIM is responsible for minutes of the meeting.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05

Title: Inservice Programs

Policy
Number: SS8-027

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

Departmental inservice programs provide a continuum of information to the anesthesia staff for professional and personal development.

POLICY:

1. Inservice programs are offered on a regular basis. Educational programs will be conducted by physicians, nurses, allied health professionals, and other appropriate persons.
2. Documentation of attendance is maintained.
3. Scheduling of education/inservice programs is the responsibility of the Chair of the Anesthesia Department or his/her designee.

PROCEDURE:

1. Scheduled programs are posted on the bulletin board.
2. Handout material and/or required equipment is the responsibility of the person(s) providing the inservice or educational program.
3. Staff is required to attend all department inservice programs and M&M meetings during work hours.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 1/97 8/05

Title: Procedures to be Used for Disaster
Call Plan

Policy
Number: SS8-028

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To outline the process for activating the disaster call system for the Department of Anesthesia

POLICY:

The Disaster Call Plan for the Anesthesia Department is implemented at the direction of the Chair of the Department and the Administrative Director, Surgical Services or designee.

1. The Administrative Director contacts the Chair of the Department and he/she, or his/her designee, then calls in all anesthesia departmental personnel.
2. The current monthly anesthesia scheduled call list serves as the department's disaster call-back roster in addition to the departmental disaster call list.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 1/97, 8/05

Title: Performance Appraisal

Policy
Number: SS8-029

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

To provide the employee and management with an organized and efficient system for evaluation of performance

POLICY:

1. Performance appraisals are done annually, or as indicated, by the anesthesia supervisor for every employee of the Anesthesia Department at each facility.
2. The evaluation process is an on-going goal setting discussion, and serves as a model for analysis and counseling.
3. The system provides for the establishment of goals that are understandable, practical, obtainable and measurable.
4. The annual review of performance criteria is the responsibility of each Anesthesia employee.
5. The annual review of the anesthesia providers' performance is solely the responsibility of the anesthesia providers' employer.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 12/93, 12/96, 8/05

Title: Continuing Education (CEUs)

Policy
Number: SS8-030

Date
Revised: 03/07
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To outline continuing education requirements for CRNAs

POLICY:

1. In accordance with the American Association of Nurse Anesthetists guidelines, CRNA's are required to attain the appropriate number of contact hours and/or CMEs established by AANA standards. Accreditation is obtained every two years.
2. Nurse anesthetists are required to attend any and all departmental inservice programs and M&M meetings held during normal working hours.
3. Nurse Anesthetists are individually responsible for keeping abreast of current literature and techniques used in the administration and clinical practice of anesthesia and related procedures.

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates: 88, 89, 90, 12/93, 12/96, 9/99, 10/02, 3/04, 8/05

Title: Post Anesthesia Care

Policy
Number: SS8-031

Date
Revised: 9/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

POLICY:

1. Patients having general anesthesia or central neuraxial anesthesia (epidural/spinal) should go to the Post Anesthesia Recovery Unit (PACU) or to a Special Care Unit for their initial recovery. The attending Anesthesiologist may transfer a patient directly to Phase II Recovery if discharge criteria are documented prior to the patient leaving the Operating Room.
2. Patients undergoing other anesthetic techniques may go to the Post Anesthesia Recovery Unit (PACU), or may be transferred directly to Phase Two Recovery in Outpatient Surgery or to a Special Care Unit. Variations in this will be determined by a member of the Anesthesia Care Team (ACT – Anesthesiologist or CRNA) along with the surgeon based on the specifics of the case.
3. When discharge criteria have been met, a patient may be released from the Post Anesthesia Recovery Unit (PACU) by an Anesthesiologist's written or verbal order.
4. Obstetrical patients requiring anesthesia services will be recovered by the primary nurse, under the supervision of the attending Anesthesiologist and/or CRNA.
5. Patients receiving anesthesia services outside the Surgical Suite or the Obstetrical Unit may be recovered in their respective procedural recovery area or transferred to the PACU under the supervision a member of the Anesthesia Care Team.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates: 8/05, 3/07

Title: CAA Employees' Responsibilities for Compliance	Policy Number: SS8-0032	Date Revised: 9/12 Reviewed: 1/16
---	-------------------------	--------------------------------------

Areas Affected: Surgical Services/Anesthesia Page 1 of 2

PURPOSE:

To define responsibilities of CAA employees in providing accurate and complete patient information

POLICY:

Commonwealth Anesthesia Associates' employees shall provide accurate and sufficient documentation by the following:

1. Accurately record beginning and ending times of all procedures
2. Record all diagnoses and procedures
3. Perform all seven steps for medical direction
 - a. Perform the pre-anesthetic examination
 - b. Prescribe the anesthetic plan
 - c. Personally participate in the most demanding portions of the case including induction and emergence, if applicable
 - d. Ensure any procedures not performed by the anesthesiologist are performed by a qualified individual
 - e. Monitor at frequent intervals
 - f. Remain physically present and immediately available. Immediate area for John Randolph Medical Center shall be defined as present on the campus.
 - g. Provide indicated post-anesthetic care
4. Bill for items and services actually provided to the patient
5. Provide diagnosis, procedure and patient information for coding by RESULT
6. Not providing medically unnecessary services

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates:

_____	_____
_____	_____

- 7. Not routinely waiving patient's co-payments and deductibles
 - 8. Not conducting improper marketing activities
 - 9. All contracts will comply with federal and state regulations
 - 10. Proper retention of records for seven (7) years for non-medical records including safe storage and the ability to retrieve records. After seven years non-medical records will be shredded prior to disposal. Incorporate compliance evaluation as part of the performance evaluation
-
-

I have read the CAA Employees' Responsibilities for Compliance Policy and will comply with these responsibilities as they pertain to my duties.

Printed Name: _____

Signature: _____

Date: _____

Title: Security of Anesthesia Carts

Policy
Number: SS8-124

Date: 11/11
Revised:
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide guidelines for the security of anesthesia carts and the drugs and equipment therein.

POLICY:

1. The Anesthesia Department shall secure the anesthesia carts in the OR or any other anesthetizing area (e.g., Radiology) via a locking mechanism (key or combination lock) whenever a member of the anesthesia staff is not present in the OR, or other anesthetizing area.
2. All drugs shall be removed from the top of anesthesia carts and placed inside the cart whenever the cart will be left unattended by a member of the anesthesia staff.

Reference Policy # _____

Approved by:

Signature

Title

Date

Approval History: Department of Anesthesia

Committees and Dates:

Title: Intralipids and Regional Blocks

Policy
Number: SS8-127

Date
Revised: 2/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 1

PURPOSE:

To provide guidelines for monitoring and availability of Intralipids when performing regional blocks for pre- or post-anesthesia.

POLICY:

All patients receiving regional blocks for anesthesia will have the following procedures initiated:

1. Monitoring
 - a. Cardiac Monitoring
 - b. Blood Pressure
 - c. Pulse Oximetry

2. Intralipids
Intralipids (20%, 500ml bag) will be available at each location where regional blocks are performed.

3. IV Pump
The holding room RN's will ensure the immediate availability of a full charged IV pump at all times.

Reference Policy # _____

Approved by:

_____	_____	_____
Signature	Title	Date

Approval History: Department of Anesthesia

Committees and Dates:

_____	_____
_____	_____

Title: Administration of Moderate Sedation & Analgesia (Adult & Pediatric)

Policy Number: PAT-500

Date Revised: 09/10
Reviewed: 1/16

Areas Affected: Surgical Services/Anesthesia

Page 1 of 8

POLICY STATEMENT:

Moderate Sedation is administered by the physician, or the RN under the direct supervision of an appropriately credentialed physician.

1. Direct supervision is defined as “at the bedside” or in the department unencumbered by any other patient intervention.
2. The physician remains at the bedside or in the department unencumbered by any other patient intervention until the patient clearly has an adequate airway and ventilation, stable vital signs, and is responsive to verbal commands or stimulation.
3. Moderate Sedation is performed in those locations listed as “Areas Affected” in the policy heading. Regardless of location, all elements of this policy apply.
4. A sufficient number of qualified staff will be available to evaluate, perform the procedure, monitor and recover the patient.

PURPOSE:

To establish uniform guidelines for assessment, evaluation, monitoring, and post-procedure recovery of patients who receive Moderate Sedation in all the specified areas of the hospital. To promote patient comfort and minimize likelihood of an adverse event related to Moderate Sedation during therapeutic, diagnostic, interventional or surgical procedures.

OVERSIGHT:

Anesthesia

Reference Policy # _____

Approved by:

Signature Title Date

Approval History: Department of Anesthesia

Committees and Dates:

AREAS AFFECTED:

Surgical Services; Radiology; Endoscopy; Emergency Department; Cardiovascular Services; Nursing Units; Pulmonary Lab

DEFINITIONS:**Minimal Sedation – Anxiolysis**

A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected. Anxiolysis is not covered by this policy. Pediatric patients may be given medication for anxiolysis and their care would follow the Pain Management Policy (Policy – 163).

Moderate Sedation/Analgesia – “Conscious Sedation”

A drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is maintained without intervention.

Deep Sedation/Analgesia

A drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained without intervention.

General Anesthesia

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.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue patients whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation should be able to rescue patients who enter a state of Deep Sedation, while those administering Deep Sedation should be able to rescue patients who enter a state of General Anesthesia.

Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support that corrects adverse physiologic consequences of and returns the patient to the originally intended level of sedation.

COMPETENCIES:

Individuals administering Moderate or Deep Sedation are qualified and have the appropriate credentials to manage patients at whatever level of sedation is achieved, either intentionally or unintentionally.

PHYSICIANS:

Physicians are credentialed by the Medical Staff based on qualifications, education and training at appointment. Physicians must meet proficiency with the Moderate Sedation Clinical Privileges Proficiency Exam at appointment and reappointment. Any physician desiring to use drugs not specifically approved under the Conscious Sedation Policy must submit a written request to the Chairman of the Department of Anesthesia stating the need for the request and demonstrating the competency in the use of these drugs. This request will be reviewed by the Chairman of the Department of Anesthesia and a recommendation will be made to the Credentials Committee. The Credentials Committee will act on the request.

REGISTERED NURSES:

Registered Nurses administering Moderate Sedation and recovering patients from Moderate Sedation must meet the following requirements:

1. ACLS Certification (Adult)
2. Airway Management (Adult)
3. Defibrillation Competency (Adult)
4. PALs (Pediatric) – if caring for pediatric patients
5. NRP (Neonates) – if caring for neonates
6. Nursing Moderate Sedation Competency Proficiency
7. Dysrhythmia Interpretation
8. Education on Drug Side Effects

PROCEDURE:**Criteria for each patient receiving Moderate Sedation**

1. The physician, prior to administration of Moderate Sedation, shall perform a pre-procedural history and physical, and write a Moderate Sedation plan based on his/her findings. The history will include indications for the procedure and any patient factors that might influence his/her response to Moderate Sedation.
2. The physician needs to obtain informed consent.
3. The extent of the physical exam is to be reflective of the type of sedation planned and/or given.
4. Airway classification assessment documented in the procedural case record by the physician.
5. The physician will reassess the patient immediately prior to Moderate Sedation. If a change in the Moderate Sedation plan is required, this change will be documented on the procedural case record or progress notes by the physician.
6. Before the physician begins the procedure, all team members will take a “timeout” and verbally verify the following using the signed consent:
 - a. The correct patient
 - b. The correct procedure
 - c. The correct site, and side (where applicable) is initialed
 - d. Depending on the procedure, confirm availability of: implants, special instruments or equipment, radiographic studies, or blood products.

PATIENT SELECTION:

The physician ordering Moderate Sedation is responsible for assessing and documenting in the medical record his/her determination that the patient is an appropriate candidate for Moderate Sedation.

ASA CLASSIFICATION:

The ASA classification system is used as a tool to assess and document patient appropriateness and risk. For any patient with an ASA classification of IV or V, consider consulting an anesthesiologist.

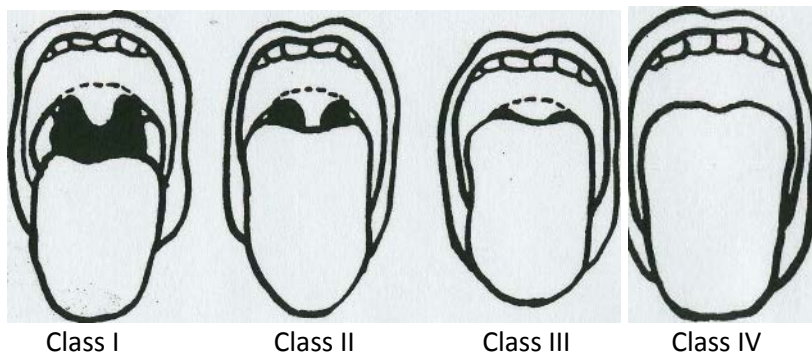
ASA	Physical Status
I	A normally healthy patient
II	A patient with mild to moderate systemic disease with no functional limitation
III	A patient with severe systemic disease with functional limitation
IV	A patient with severe systemic disease that is a constant threat to life
V	A moribund patient not expected to survive with or without the intervention

AIRWAY CLASSIFICATION:

It is an absolute necessity that airway problems are discovered before sedation is initiated. There are two key features of airway examination; current practice includes evaluation of both the oropharynx and the distance under the chin (referred to as the mental space).

The oropharynx is examined with the patient in the sitting position, with the neck extended, tongue out, and phonating. The four classes of oropharynx, originally described by Mallampati, are grouped according to visualized structures (see diagram below). Class I and Class II predict an easy intubation; Class III predicts moderate difficulty, and Class IV severe difficulty.

The mental space is the distance from inside the bony prominence of the chin to the hyoid bone. This is measured with your fingertips, while the patient sits with the neck in the sniffing position. This distance is normally at least 3 finger breadths in an adult. Less than three finger breadths indicates increased difficulty if the patient needs to be intubated. Other features on exam that increase the likelihood of difficult intubation include: diminished neck extension, decreased tissue compliance, large tongue, overbite, large teeth, narrow high-arched palate, decreased temporomandibular joint mobility and short thick neck.



Class	
I	Soft palate, fauces, all of uvula, anterior and posterior tonsillar pillars; indicates no difficulty
II	Soft palate fauces, part of uvula; indicates no difficulty
III	Soft palate, base of uvula; indicates moderate difficulty
IV	Soft palate only; indicates significant difficulty

Pulmonary aspiration risk should be considered in determining timing of an elective or scheduled procedure and target level of sedation. Sufficient time for gastric emptying should be considered.

FASTING GUIDELINES		
Patient Age	Solids	Clear Liquids (only oz. water, Pedialyte,)
Newborn to 12 months old	6 hours	2-4 hours
Greater than 12 months old-10 yrs	8 hours	4-6 hours
Adults	8 hours	4-6 hours

If possible, the longer fasting times with clear liquids are preferable. The physician has discretion in this area depending on the urgency of the procedure.

PRE-PROCEDURE PREPARATION & PLAN OF CARE:

1. Educate the patient.
2. Patient Acuity is assessed to plan for appropriate level of post-procedure care. Ensure patient has a ride home with a responsible adult (if to be discharged home).
3. Ensure informed consent has been obtained and consent is signed by patient or legal guardian.
4. Complete the pre-procedure checklist.
5. Assemble necessary equipment, including:
 - a. Supplemental oxygen set-up
 - b. Nasal cannula and/or face tent
 - c. Pulse oximeter
 - d. Airway management equipment: oral and nasal airways, endotracheal tubes and laryngoscope
 - e. Code cart with defibrillator or Pediatric Code Cart
 - f. Non-Invasive Blood Pressure Monitoring Equipment
 - g. Cardiac monitor. Pediatrics: Cardio-respiratory monitor.
 - h. Suction apparatus with appropriate suction catheters
 - i. Ambu bag and mask (infants/children <40 kg should have Pediatric Code Cart at the bedside)
 - j. Reversal agents readily available
 - k. Any special equipment or supplies that are needed for a particular procedure.
6. Obtain IV access.
7. Prepare medications to be administered
8. **Appendix A documents the classes of medications that are approved for the use in the administration of Moderate Sedation (sedative/hypnotic agents and narcotics). Reversal agents must be readily available, and are documented in Appendix A as well.**

INTRA-PROCEDURAL MONITORING:

A monitoring RN is responsible at all times and should not engage in tasks that would compromise monitoring during the procedure. Patients' responses to verbal commands during a procedure performed with Moderate Sedation serve as a guide to their level of consciousness. An appropriate level of consciousness implies that patients will be able to control their own airways and take deep breaths, as necessary. Additional staffing should be provided based on the type of procedure, response to the medications administered, and the overall health of the patient.

The type of monitoring parameters should be determined by the type of procedure, depth of central nervous system depression, and the overall health of the patient. However, the minimal monitoring parameters required are as follows:

1. Level of Consciousness/Response to Commands – Should be assessed during the onset of Moderate Sedation and whenever medications are being titrated. Once an appropriately safe level of Moderate Sedation is established, the patient's level of consciousness should be assessed every 5 minutes.
2. Continuous pulse oximetry.
3. Blood pressure, respiratory rate (based on observation, not monitors), & heart rate
 - Baseline, before sedation
 - During onset of sedation
 - Regular intervals during procedure (5 minute intervals)
 - End of procedure

4. Continuous EKG monitoring will be done for patients receiving Moderate Sedation.
5. Pain Level - continuous observation as to the extent of the patient's discomfort/pain.

DOCUMENTATION & SIGNS FOR IMMEDIATE REPORT:

Documentation of the above referenced monitoring findings will be made on the Moderate Sedation record or the department specific form every 5 minutes during the procedure. The following vital signs should be immediately reported to the physician:

1. Respiratory rate less than 10/minute or greater than 10/minute (adults) above pre-procedure rate.
Acceptable respiratory rates for neonate and pediatric patients should be age appropriate and designated by the nurse and physician prior to the procedure.
2. Blood pressure variant of 25% of baseline.
3. Heart rate variant of 25% of baseline.
4. Oxygen saturation lower than 90%.
5. Cardiac dysrhythmias.
6. Significant change in level of consciousness (patient responsive).

Immediate Post Procedure Note

Following the procedure the physician is responsible for documenting an immediate post operative/procedure note in accordance with all requirements defined in the Medical Staff Rules and Regulations, including content requirements.

Special Considerations:

Special technological problems associated with monitoring patients in MRI scanner necessitate the use of special equipment to provide patient monitoring throughout the scanning procedure. Pulse oximeters capable of continuous function even during the scanning process are available and should be used in the sedated patient. Thermal injuries can result if appropriate precautions are not taken. Monitoring personnel should avoid coiling the pulse oximeter wire and place the probe as far from the magnetic coil as possible to reduce the potential for injury. Electrocardiogram monitoring during imaging has been associated with thermal injury and should be performed only with MRI compatible Equipment.

MRIs, EEGs, Echocardiograms, CT and other procedures where technological and physiological external monitoring devices would alter the outcome of the test, or cause injuries to the patient, should not be utilized during procedures. Pre-procedure baseline vital signs should be obtained whenever possible. The patient should be monitored by direct observation and a minimum of one external monitoring device throughout the procedure.

POST-MODERATE SEDATION STABILITY CRITERIA:

1. All patients will be assessed immediately upon arrival to the recovery area.
2. All patients who have received Moderate Sedation should be monitored by a qualified RN until appropriate stability criteria have been satisfied. The duration of monitoring should be individualized depending on the level of sedation, overall condition of patient, and the nature of the intervention for which sedation was administered.
3. Moderate Sedation patients should have vital signs, oxygen saturation, LOC and pain status monitored approximately every 5 minutes for the first 15 minutes unless the Aldrete score is equal to preoperative score, then every 15 minutes until stability criteria is met. The responsible physician should be notified if vital signs fall outside of the limits previously established for each patient. Stability criteria includes:
 - a. Oxygen saturation greater than 90% on room air, or at pre-procedural level.
 - b. Patient easily aroused, or at pre-procedural level.
 - c. Protective reflexes intact
 - d. Patient alert and oriented to person, place, time, or at pre-procedural level.
 - e. Vital signs within 20% of baseline

- In the event that the patient does not meet the pre-procedural stability criteria level the physician will be notified for placement orders for the appropriate level of care. It may be necessary to admit the patient rather than discharge or admit to a higher level of care such as a telemetry bed or ICU bed.

**POST MODERATE SEDATION RECOVERY SCORE
(MODIFIED ALDRETE SCORE)**

CATEGORY	SCORE	ARRIVAL	TRANSER
ACTIVITY			
Able to move 4 extremities voluntarily or on command	= 2		
Able to move 2 extremities voluntarily or on command	= 1		
Able to move 0 extremities voluntarily or on command	= 0		
RESPIRATION			
Able to deep breathe and cough freely	= 2		
Dyspnea or limited breathing	= 1		
Apnea	= 0		
CIRCULATION			
BP +/- 20% of Pre-anesthetic level	= 2		
BP +/- 20-50% of Pre-anesthetic level	= 1		
BP +/- 50% of Pre-anesthetic level	= 0		
CONSCIOUSNESS			
Fully Awake	= 2		
Arousable on calling	= 1		
Not responding	= 0		
COLOR			
Pink	= 2		
Pale, dusky, blotchy, jaundiced, other	= 1		
Cyanotic	= 0		
TOTALS			

Patients should not be discharged from the procedural area until stability has been established. The Aldrete Score should be at baseline of admission score prior to discharge. If the score is lower, the physician must determine discharge readiness.

DISCHARGE POST MODERATE SEDATION

- Inpatients may return to their nursing unit when the above post procedure stability criteria are met.
- Outpatients should be alert and oriented. Infants and patients whose mental status was initially abnormal should have returned to their baseline. Caregivers must be aware that pediatric patients are at risk for airway obstruction should the head fall forward while the child is secured in a car seat.
- If reversal agents are given, the patient must remain in observation a minimum of 1 hour after administering the reversal agent.
- Patients should be able to tolerate clear liquids prior to discharge unless liquids are contraindicated.
- Outpatients should be discharged in the presence of a responsible adult who will accompany them home and be able to report any post-procedure complications.
- Outpatients and the responsible adult should be provided with verbal and written instructions regarding post-procedure diet, medications, activities, and a phone number to use in case of an emergency.
- All patients will meet discharge criteria and have a doctor's order prior to discharge.

REPORTING REQUIREMENTS:

The measurement of the Moderate Sedation process takes place at the unit level in order to monitor for trends and opportunities for improvement. Data is aggregated and reports are forwarded to the Chair of the Anesthesia Department, Quality Resource and Risk Management. All cases in which the events occur in the list that follows should be documented using the hospital QCR; the events should be investigated by the department manager and documented on the QCR and forwarded to Quality Department and Risk Management.

1. All cases requiring use of reversal agents
2. All cases requiring assisted ventilation
3. All unanticipated hospital admissions related to Moderate Sedation
4. All cases in which there is hemodynamic instability defined as 30% change from baseline in blood pressure or heart rate and/or the occurrence of new atrial or ventricular arrhythmias
5. All deaths in patients receiving Moderate Sedation
6. Other cases in which the monitoring personnel note an opportunity improvement or variance in practice.
7. All patients that fail to return to their baseline level of consciousness.

REFERENCES

Comprehensive Accreditation Manual for Hospitals: Care of Patients, Standards, Intents, and Examples for Anesthesia Care, November 2003
Evaluation and Preparation of Pediatric Patients Undergoing Anesthesia – American Academy of Pediatrics. Policy Statement. Pediatrics, Volume 98, Number 3: September, 1996, pp. 502-508
Practice Guidelines for sedation and Analgesia by Non-Anesthesiologists: An Updated Report by the American Society of Anesthesiologists Task Force on sedation and Analgesia by Non-Anesthesiologist. Anesthesiology. 2002; 96: 1004-1015
Taketomo, Carol K., Hodding, Jane H., Kraus, Donna M. Pediatric Dosage Handbook, 10th Edition, Lexi-Comp, Hudson, Texas; 2003.

Appendix A

ADULT INTRAVANEOUS SEDATION DRUGS/REVERSAL AGENTS

This chart is for reference only. Doses may be adjusted based on patient response and physician discretion.

DRUG	RECOMMENDED DOSE	TOTAL DOSAGE	ONSET/ HALF-LIFE	REVERSAL AGENT	SIDE EFFECTS
Versed (Midazolam)	1-2.5 mg slow IVP Wait 2-4 min between doses to evaluate effect	5 mg in 1 hr	1-5 minutes/ 1.2-12.3 hrs	Romazicon (Flumazenil)	Respiratory depression, dysrthmias, vasovagal episodes, paradoxical hysteria
Fentanyl (Sublimaze)	0.25 – 0.5 mcg/kg (usual 25- 50 mcg dose)	300 mcg in 1 hr	1-3 minutes/ 1.5-6 hrs	Narcan (Naloxone)	Respiratory depression, lethargy, laryngospasm, hypotension seizures
Valium (Diazepam)	2-5 mg slowly over 1 min; repeat q 5- 10 min, prn	20 mg in 1 hr	1-5 minutes/ 20-70 hrs	Romazicon	Somnolence, coma, hypotension, respiratory distress
Brevital (Methohexital) Should be administered only by those trained in administration of general anesthesia, who are not simultaneously involved in the surgical or diagnostic procedure.	20-40 mg IVP, slowly q4-7 min. Only by anesthesia trained personnel or by an RN in the presence of the physician with Sedation Privileges.	Individualized	Few seconds/ Duration 5-8 min.	None	CNS/Respiratory depression, hypotension, convulsions
Diprivan (Propofol) Should be administered only by those trained in administration of general anesthesia, who are not simultaneously involved in the surgical or diagnostic procedure.	0.5mg/kg over 3-5 min to achieve desired clinical response. Only by anesthesia trained personnel or by an RN in the presence of the physician with Sedation Privileges. 0.3-3mg/kg/hr titrated to clinical response for ICU sedation only on ventilated patients	Individualized	20-64 min	None	Apnea, hypotension, Bradycardia, decreased cardiac output, asystole, cardiac arrest.
Ativan (Lorazepam)	.025mg/kg starting dose- may be repeated after 10 min.	Max dose 2mg – some pts may require up to 4mg	12.9 hrs/ 15 for elderly	Romazicon	Sleepiness or drowsiness, respiratory depression
REVERSAL AGENTS					
Narcan (Naloxone)	0.1-0.2 mg q 2 min 0.2 repeat q 1-2 hrs, prn		2-3 minutes 30-81 min		Hypotension, hypertension, VT, VF, pulmonary edema, seizures
Romazicon (Flumazenil)	0.2 mg IV over 15 sec Wait 45 sec, then may repeat 0.2 mg q 1 min x 4	1 mg (10 ml)/5 min 3 mg in 1 hr	45 seconds 41-79 min		N/V, dizziness, agitation, headache, abnormal vision

Appendix A

NEONATE/PEDIATRICS SEDATION DRUGS/REVERSAL AGENTS

This chart is for reference only. Doses may be adjusted based on patient response and physician discretion.

DRUG	ACTION	ROUTE	RECOMMENDED DOSE	ONSET	DURATION	SIDE EFFECTS
Chloral Hydrate	Sedation	PO PR	Neonate: 25mg/kg/dose Infants & Children 50-75 mg/kg; Max 100 mg/kg (max 1gram for infants and 2 grams for children)	30-60 min Same as PO	PO 1-4 hrs PR 4-8 hrs	Paranoid reaction N/V, hypotension
Fentanyl (Sublimaze)	Sedation/ Analgesia	IV	Neonate (and may include infants/children 18mo-36mo): 1-4 mcg/kg/dose Infants & Children: 1-2 mcg/kg over 3-5 min Children > 12 years: 0.5-1 mcg/kg/dose may repeat q 5 mins	< 1 min	30-60 min	Apnea Bradycardia Shock Rigid chest if administered too rapidly* Reversal agent is Narcan
Ketamine Should only be used in the Emergency Department or by anesthesia providers	Sedative Analgesia Amnestic	PO, IV, or IM	Oral: 6-10 mg/kg/dose IM: 3-7mg;/kg/dose IV: 0.5-2 mg/kg/dose	PO 20-30 min IM 10-15 min IV<1 min	60-120 min PO 12-25 min IM 5-10 min IV	Non-reversible Hypertension, Tachycardia, Increased ICP, Laryngospasm, increased secretions; psychological manifestations: pleasant, dream-like states, vivid imagery, hallucinations, and/or delirium state
Versed (Midazolam)	Sedation	IV PO Intra-nasal	Neonates < 32 weeks: 0.03mg/kg/hour Neonate >32 weeks: 0.06mg/kg/hour *Do not use loading dose in Neonates. >6 mos – 5 yrs: 0.05-0.1 mg/kg, total dose up to 0.6 mg/kg (Total dose max 6mg) 6-12 yrs: 0.025-0.05 mg/kg, total dose up to 0.4 mg/kg (Total dose 10mg) >12 yrs: use adult dosage 0.25-0.5 mg/kg (max 10 mg) Intranasal: 0.2-0.3 mg/kg may repeat in 5-15 min	Oral: 10-20 min IV 1-5 min Intranasal: 5 min	Oral & Intranasal: 30-60 min IV: 20-30 min	Apnea Bradycardia Shock Hypotension, Pain or burning with IV injection *Reversal Agent is Romazicon

Appendix A

NEONATE/PEDIATRICS SEDATION DRUGS/REVERSAL AGENTS

(continued)

This chart is for reference only. Doses may be adjusted based on patient response and physician discretion.

Brevital	Sedation	Rectally	Rectally: 25mg/kg (Mix to concentration of 100mg/ml; administer via 8fr feeding tube)	15 min	45 min	Hiccups, Hypotension, Tachycardia, Respiratory Depression
Should be administered only by those trained in administration of general anesthesia, who are not simultaneously involved in the surgical or diagnostic procedure.						
Propofol	Sedation	IV	1mg / kg followed by 0.5-1.0mg / kg repeat doses as needed	<1 min	5-15 mins Half-life 20-64 mins	Respiratory depression and hypotension. Avoid in Egg or Soya allergies. Avoid in patients with porphyria.
Should be administered only by those trained in administration of general anesthesia, who are not simultaneously involved in the surgical or diagnostic procedure.						
Pentobarbital	Sedation	IV, IM, PO, PR	Intravenous: 1-6 mg / kg, titrated in 1-2 mg / kg increments every 3-5 min to desired effect. Intramuscular: 2-6 mg / kg, maximum 100 mg. Oral or rectal (<4 years): 3-6 mg/kg, maximum 100 mg Oral/rectal (>4 years): 1.5-3 mg / kg, maximum 100 mg	IV: 3-5 mins IM: 10-15 mins PO or PR: 15-60 mins	IV: 15-45 mins IM: 60-120 mins PO or PR: 60-240 mins	Respiratory Depression. May produce paradoxical excitement. Avoid in patients with porphyria.
Should be administered only by those trained in administration of general anesthesia, who are not simultaneously involved in the surgical or diagnostic procedure.						
REVERSAL AGENTS						
Narcan (Naloxone)	Narcotic Reversal	IV, IM, SC, ET	0.01 mg/kg q 2 min prn reversal	< 2 min	20-60 min	Pain Combativeness
Romazicon (Flumazenil)	Benzo-diazepine Reversal	IV	0.01 mg/kg (Max dose 0.2mg/kg) (Max total dose of 0.05mg/kg or 1mg) q 1 min prn reversal	1-3 min< 15 min	30-60 min less than 1 hour	N/V, dizziness, agitation, headache, abnormal vision