1.0 POLICY:

To establish guidelines for care of the patient as related to deep sedation/anesthesia care, including pre-anesthesia assessment.

2.0 PURPOSE:

- To establish the policy, responsibility, and procedures for the optimum and safe management of patients requiring anesthesia care
- To ensure the safe administration of anesthetic and sedative agents.

3.0 DEFINITION:

Deep Sedation:

A drug-induced depression of consciousness during which patients cannot be easily aroused, but responds purposefully following repeated or painful stimuli. Patients may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

Anesthesia:

Consists of general anesthesia and spinal or major regional anesthesia. It does *not* include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

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Operative/other invasive procedures:

Are those procedures involving puncture or incision of the skin or insertions of an instrument or foreign material into the body, including but not limited to percutaneous aspirations and biopsies, cardiac and vascular catheterizations, endoscopies, angioplasties, and implantation, excluding venipuncture, intravenous therapy, and injection of radiographic contrast media.

4.0. Abbreviations:

IPD In patient Department

5.0 SCOPE:
Operation Theatre, Invasive procedures
6.0 RESPONSIBILITY:
Anesthetist, Surgeon, Nursing in charge
7.0 DISTRIBUTION:

- Operation Theatre
- IPD
- Invasive Diagnostic Departments

8.0 PROCESS DETAILS:
8.1 DESCRIPTION OF THE PROCESS

8.1.1 Staff competency/qualifications

1. Deep sedation and anesthesia are provided by qualified individuals.

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2. Qualified individuals are trained in professional standards and techniques:

a. To administer pharmacological agents to predictably achieve desired levels of sedation, and

b. To monitor patients carefully in order to maintain them at the desired level of sedation.

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

4. Included in the qualifications of individuals providing deep sedation and anesthesia are competency-based education, training, and experience in:

a. Evaluating patients prior to performing deep sedation and Anesthesia; and

b. Performing the deep sedation and anesthesia to include methods and techniques required to rescue those who unavoidably unintentionally slip into a deeper-than-desired level of sedation or analgesia. Specifically:

1). Practitioners who have appropriate credentials and are permitted to administer deep sedation are qualified to rescue patients from general anesthesia.

2). Practitioners intending to induce deep sedation are competent to manage an unstable cardiovascular system as well as a compromised airway and inadequate oxygenation and ventilation.

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8.1.2 **Staffing:**

Enough qualified personnel (in addition to the licensed independent practitioner performing the procedure) are present during procedures using deep sedation and anesthesia to:

1. Appropriately evaluate the patient prior to beginning deep sedation or anesthesia,
2. Provide the deep sedation or anesthesia,
3. Perform the procedure
4. Monitor the patient, and
5. Recovery and discharge the patient either from the post-sedation or post-anesthesia recovery area or from the organization.

8.1.3 Equipment and monitoring

1. Appropriate equipment for care and resuscitation is available for monitoring vital signs. Intra procedure monitoring of the patient under anesthesia shall be done and recorded. This shall include monitoring of following

- Heart rate
- Cardiac rhythm
- Respiratory rate
- Blood pressure
- Oxygen saturation
- Any other parameter as required

2. A pre-anesthesia assessment, as documented on the Anesthesia Preoperative Record, is performed prior to beginning deep sedation and before anesthesia induction. This pre-

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anesthesia assessment is completed in all settings where operative and other invasive procedures are performed and anesthesia, as defined by above, is administered.

This assessment includes:

Pre-anesthesia

Patient assessment: The anesthesiologist conducts a full assessment to understand the patient's health status.

Anesthesia plan: Based on the assessment, an anesthesia plan is created and documented.

Informed consent: The patient is informed about the planned anesthesia, potential risks, and benefits. Written consent is obtained from the patient or, if unable, from a legal guardian.

Pre-operative instructions: Patients are given instructions, such as when to stop eating or drinking before the procedure.

Medication review: Patients must provide accurate information about their medications and any they should be brought to the hospital.

Intra-operative

Continuous monitoring: Vital signs, such as heart rate, blood pressure, and oxygen saturation, are continuously monitored and recorded.

Equipment: The anesthesiologist ensures all equipment, including monitoring devices, is ready and functional.

Patient safety: A crash cart with necessary medications and emergency equipment is kept ready and fully stocked.

Post-anesthesia

Recovery monitoring: Patients are monitored in the recovery phase, and their status is documented.

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Side effect management: Potential side effects, like nausea, pain, or chills, are managed as they arise.

Discharge plan: Patients are provided with instructions on post-operative care before being discharged.

Documentation: All aspects of the anesthesia and recovery process are meticulously documented to ensure continuity of care.

3. Documented observations will include:

- History of previous anesthetics (including adverse family history)
- Drug allergies medications, currently or recently in use
- Tobacco, drug and alcohol usage
- Dental or airway anomalies
- Presences of any inter current disease processes capable of affecting anesthesia.

4. The assessment will contain a responsible physician's recommendations regarding anesthesia and premedication, the assignment ASA risk classification, and the formulation of an anesthetic plan. Patient's sedation or anesthesia care needs are communicated among providers.

5. Prior to sedation of the patient, deep sedation/anesthesia risks and alternative methods will be discussed with the patient. If the patient declines such risk information, this will be noted on the Anesthesia Preoperative Record.

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6. Immediately before starting the anesthesia, the patient is re-evaluated by a licensed independent Anesthesia practitioner, who makes the determination that the patient is a suitable candidate to undergo the planned anesthetic – through the pre-induction assessment form

7. Prior to administration of anesthesia, appropriate monitors are applied and continuous physiological monitoring is performed. The anesthetic is administered and an Anesthesia Record is maintained indicating the dosages of all drugs and agents, the type and amount of fluids, blood/blood products, all pertinent anesthetic interventions and their results, and any other events of importance.

8. At the end of the case, the patient is taken to an appropriate recovery area for care. The patient's status is assessed and the care is transferred to appropriately trained personnel.

9. Patients shall be discharged from the recovery area by a licensed, independent practitioner, or when they meet criteria which have been approved by the medical staff. This discharge criterion is based upon the Aldrete Scoring System. Patients may be discharged with a score of 8 – 10 unless pre-operative condition precludes this. Any deviation from criteria shall be documented and the physician notified for written order.

10. Outcomes of patients undergoing deep sedation and anesthesia are collected and analyzed in the aggregate in order to identify opportunities to improve care.

8.2 ACTIVITY AND RESPONSIBILITY

Sr. No	Procedure Steps	Responsibility
1.	The record should include documentation of:	Anaesthesiologist

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	Preanesthesia Evaluation A. Patient interview to assess: • Medical history • Anesthetic history • Medication history B. Appropriate physical examination. C. Review of objective diagnostic data (e.g., laboratory, ECG, X-ray). D. Assignment of ASA physical status. E. Formulation of the anaesthetic plan and discussion of the risks and benefits of the plan with the patient or the patient's legal representative. f. Informed consent for the administration of anesthesia	
2.	The anaesthesiologist, before the delivery of anesthesia care, is responsible for: 1. Reviewing the available medical record. 2. Interviewing and performing a focused examination of the patient to: a. Discuss the medical history, including previous anaesthetic experiences and medical therapy. b. Assess those aspects of the patient's physical condition that might affect decisions regarding preoperative risk and management. 3. Ordering and reviewing pertinent available tests and consultations as necessary for the delivery of anesthesia care.	Anaesthesiologist

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	4. Ordering appropriate preoperative medications. 5. Ensuring that consent has been obtained for the anesthesia care. 6. Documenting in the chart that the above has been performed.	
3.	**Intraoperative/procedural anesthesia (time-based record of events)** A. Immediate review prior to initiation of anaesthetic procedures: • Patient re-evaluation • Check of equipment, drugs and gas supply B. Monitoring of the patient (e.g., recording of vital signs). C. Amounts of drugs and agents used, and times of administration. D. The type and amounts of intravenous fluids used, including blood and blood products, and times of administration. E. The technique(s) used. F. Unusual events during the administration of anesthesia. (Any adverse Event) G. The status of the patient at the conclusion of anesthesia.	Anaesthesiologist
4.	THESE STANDARDS APPLY TO POST ANESTHESIA CARE IN ALL LOCATIONS. Standard I All Patients Who Have Received General Anesthesia, Regional Anesthesia Or Monitored Anesthesia Care Shall Receive Appropriate Post anesthesia Management.	

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5.	1. A Post anesthesia Care Unit (Recovery) or an area, which provides equivalent post anesthesia care (for example, a Surgical Intensive Care Unit and Recovery) shall be available to receive patients after anesthesia care. All patients who receive anesthesia care shall be admitted to the Recovery area or its equivalent **except** by specific order of the anaesthesiologist responsible for the patient's care. 2. The medical aspects of care in the Recovery area (or equivalent area) shall be governed by policies and procedures that have been reviewed and approved by the Department of Anesthesiology.	
6.	**Standard II** A Patient Transported To The Recovery Shall Be Accompanied By A Member Of The Anesthesia Care Team Who Is Knowledgeable About The Patient's Condition. The Patient Shall Be Continually Evaluated And Treated During Transport With Monitoring And Support Appropriate To The Patient's Condition.	
7.	**Standard III** Upon Arrival In The Recovery Area The Patient Shall Be Re-Evaluated And A Verbal Report Provided To The Responsible Recovery Area Nurse By The Member Of The Anesthesia Care Team Who Accompanies The Patient.	
8.	The patient's status on arrival in the Recovery shall be documented by the recovery nurse. 2. Information concerning the preoperative condition and the surgical/anaesthetic course shall be transmitted to the	

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	Recovery nurse. 3. The member of the Anesthesia Care Team shall remain in the Recovery until the Recovery nurse accepts responsibility for the nursing care of the patient.	
9.	**Standard IV** The Patient's Condition Shall Be Evaluated Continually In The Recovery room. The patient shall be observed and monitored by methods appropriate to the patient's medical condition. Particular attention should be given to monitoring oxygenation, ventilation, circulation, level of consciousness and temperature. During recovery from all anesthesia effect, a quantitative method of assessing oxygenation such as pulse oximetry shall be employed in the initial phase of recovery.	
10.	**Post anesthesia** A. Patient evaluation on admission and discharge from the post anesthesia care unit. B. A time-based record of vital signs and level of consciousness. A time-based record of drugs administered their dosage and route of administration throughout the recovery stage. D. Type and amounts of intravenous fluids administered, including blood and blood products. E. Any unusual events including post anesthesia or post procedural complications.	Anaesthesiologist

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	F. Post anesthesia visits.	

8.3 Adverse anaesthesia evens:

Adverse anaesthesia events are defined by INODAYA Hospital - Kakinada, which are documented and monitored for the purposes of taking corrective and preventing actions regularly.

The **defined adverse anaesthesia** events following administration of anaesthesia are

1. **Complications of air way :**
   - I. **Laryngospasm**
   - II. **Bronchospasm**
   - III. **Airway trauma**
2. **Aspiration pneumonia**
3. **Drug allergy due to anaesthesia medications**
4. **Cardiac related events**
   - I. **Intra operative MI**
   - II. **Intra operative arrhythmias(AVT/VT)**
   - III. **Severe Bradycardia Heart Rate <40)**
   - IV. **Persistent tachycardia(heart rate >130)**
5. **Ventilation related events:**
   - I. **Hyperventilation (End tidal Co2 >60)**
   - II. **Hypoxia (oxygen saturation <90)**

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9.0 REFERENCES: Policy on Care of Patients Undergoing Moderate Sedation

10.0 RECORDS AND FORMATS:

- Immediate review prior to initiation of anesthetic procedures.
- Monitoring of the patient.
- Amounts of all drugs and agents used, and times given.
- Types and amounts of all intravenous fluids used, including blood and blood products, and times given.
- The technique[s] used.
- Unusual events during the anesthesia period.
- The status of the patient at the conclusion of anesthesia.

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