NASSAU HEALTH CARE CORPORATION
EAST MEADOW, NEW YORK, 11554

SECTION: PROVISION OF CARE
POLICY/PROCEDURE

TITLE: **Policy for the Care of Patients Sedated for Procedures**
Approved: Quality Policy Advisory Council
References: Joint Commission 2015 Hospital Accreditation Standards: PC.03.01.01 to PC.03.01.07, RC.02.01.03, PI.1.01.01. American Society of Anesthesia Standards: "Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists." Anesthesiology 2012;96:1004-1017. Procedural Sedation and Analgesia in the Emergency Department: Recommendations for Physician Credentialing, Privileging and Practice, June 2011 Accreditation Standards for Advanced Specialty Education Programs in Oral and Maxillofacial Surgery Feb 2016

1.0 POLICY

1.1 Statement of Purpose: To standardize the care of patients undergoing procedures who require the administration of moderate or deep sedation by a non-anesthesiologist.

1.2 It is the policy of Nassau Health Care Corporation (NHCC) that patients sedated for procedures are appropriately cared for:

1.2.1 By providers who are properly trained and qualified per Joint Commission Standards and American Society of Anesthesia Standards (see appendix 8)

1.2.2 In an environment designed and supplied to make the sedation and procedure safe.

1.2.3 Via an intake, sedation, monitoring and disposition/discharge system that provides a uniform, safe standard of care.

.

2.0 PROCEDURE

2.1 Definitions

2.1.1 Minimal sedation (anxiolysis)

2.1.1.1 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.

2.1.2 Moderate (conscious) sedation/analgesia - 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 usually maintained. The difference between analgesia and moderate sedation is the **intent.**
With moderate sedation there is the intent to produce an altered mental state, for the performance of a procedure, as opposed to analgesia (for relief of pain without intentional production of altered mental state such as sedation)

2.1.3 Deep sedation/analgesia - A drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposely 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.

2.1.4 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 arouse able, 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 of drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

2.2 PROCESS

2.2.1 INCLUSION **AND EXCLUSION CRITERIA**

2.2.1.1 This policy applies to all inpatients and outpatients of NHCC who:

2.2.1.2 Receive sedative/analgesic medication by the intravenous route to enable a diagnostic or therapeutic procedure, and/or

2.2.1.3 Receive moderate or deep sedation, by any route, including oral, intramuscular and per rectum, to enable a diagnostic or therapeutic procedure.

2.2.2 This policy does **not** apply to:

2.2.2.1 Patients who receive oral medications designed to produce anxiolysis only (inpatient or outpatient).

2.2.2.2 Patients who are not undergoing a diagnostic or therapeutic procedure.

2.2.2.3 Patients who receive less than 50% nitrous oxide in oxygen with no other sedative or analgesic medications by any route.

2.2.2.4 Patients already receiving a standing dose of sedative and/or analgesic medication(s) for the treatment of symptoms such as pain, anxiety, insomnia and nausea. However, patients on standing sedative and/or analgesic medications, who receive an extra or larger dose of the same medication or a new sedative/analgesic, to enable a diagnostic test or procedure, must be monitored as per this policy.

2.2.2.5 Intubated patients on a ventilator.

2.2.2.6 2Patients under the care of an Anesthesiologist. In this circumstance, care of the patient is governed by the Department of Anesthesia Policy and Procedure Manual.

2.3 ROLE OF THE DEPARTMENT OF ANESTHESIA

2.3.1 Develop guidelines for the training, supervision, credentialing and recredentialing of all individuals involved in the care of patients sedated by any route, for diagnostic or therapeutic procedures.

2.3.2 Establish methods of patient evaluation and risk assessment including but not limited to:

2.3.2.1 ASA physical status classification

2.3.2.2 Airway assessment

2.3.2.3 Fasting interval

2.3.2.4 Aspiration risk

2.3.2.5 Criteria for anesthesia consultation

2.3.3 Participate in establishing designated Sedating Locations with appropriate staffing, equipment, monitoring, documentation, intake, recovery and discharge criteria and continuum of care.

2.3.4 Determine appropriate drug doses, titration and techniques used during sedation.

2.3.5 Assist in development of monitoring and evaluation tools, adverse event reporting and process improvement.

2.4 ANESTHESIA CONSULTATION

2.4.1 Formal consultation with the Department of Anesthesia must be requested for patients with:

2.4.1.1 A significant risk of

2.4.1.1.1 Difficult Airway as defined in appendices 2 and 3

2.4.1.1.2 Cardiopulmonary or neurological decompensation

2.4.1.1.3 Gastric content aspiration(see appendix 5)

2.4.1.2 A Mallampati score of 4 (see appendix 3)

2.4.1.3 An ASA Risk Score of 3 or greater (see appendix 1)

2.4.1.4 A known history of prior difficult mask ventilation and/or intubation.

2.4.1.5 Failure of prior sedation.
2.4.1.6 Inability of patient to cooperate
2.4.1.7 History of moderate to severe sleep apnea
2.4.1.8 Patients with a BMI of 40 or greater
2.4.1.9 When the physicians and nurses caring for the patient have concerns regarding the patient's ability to undergo the planned procedure and sedation safely.

2.5 EQUIPMENT/SUPPLIES

2.5.1 The Sedating Location must provide:

2.5.1.1 50 PSI oxygen source. Supplemental oxygen is recommended for most patients being sedated.

2.5.1.2 Variable power vacuum suction apparatus. Wall oxygen and suction sources are most reliable and preferred. Where tank oxygen and/or portable suction machines are used, the attending physician must ascertain that the oxygen supply is sufficient and the suction apparatus is functioning properly before beginning the procedure.

2.5.1.3 Standard fully equipped cardiac arrest cart with equipment appropriate for the age of the patient being sedated including a self-inflating positive pressure oxygen delivery resuscitation bag, airways, laryngoscopes and endotracheal tubes.

2.5.1.4 A full supply of resuscitation drugs must be available including narcotic and benzodiazepine antagonist drugs - Naloxone and Flumazenil. The Pharmacy Department is responsible for maintenance of the resuscitation drugs.

2.5.1.5 Pulse oximeter with alarm.

2.5.1.6 Noninvasive blood pressure measuring device.

2.5.1.7 An EKG monitor with alarm.

2.5.1.8 A patent intravenous infusion for the duration of the procedure and during recovery as deemed necessary.

2.5.1.9 When inhalation sedation is provided with nitrous oxide (N20) it must be delivered with equipment that:

2.5.1.9.1 Cannot provide a concentration of N20 in excess of 70% inspired.

2.5.1.9.2 Will provide a maximum of 100% and never less than 21% oxygen

2.5.1.9.3 Is fitted with an oxygen analyzer to monitor the accuracy of delivered gases

2.5.1.10 End Tidal CO2 monitoring is mandatory for Deep Sedation.

2.5.1.11 All Equipment must be prepared and maintained according to existing Hospital protocol developed by the Department of Biomedical Engineering and, as applicable, the Cardiac Arrest Committee.

2.6 **PERSONNEL**

2.6.1 In all cases involving Sedation for a diagnostic/therapeutic procedure the person performing the procedure and the Dedicated Observer must be identified. The requirements of these two positions differ based on whether Moderate Sedation or Deep Sedation is planned.

2.6.1.1 **Moderate Sedation**

2.6.1.1.1 **The Dedicated Observer:** The patient's vital signs, level of consciousness, pain assessment and condition must be continually monitored by a single Dedicated Observer. The Dedicated Observer for a patient receiving moderate sedation can be a Credentialed Practitioner, , PA, NP or a competency assessed RN who is qualified by training and achieved competency as defined by the organization. The Dedicated Observer will be available to the patient from the time of administration of sedation /analgesia medication until recovery is judged adequate or the care of the patient is transferred to appropriate personnel performing recovery care. The dedicated observer cannot also be involved in performing the diagnostic/therapeutic procedure. The Dedicated Observer must be certified in ACLS, PALS, and/or Neonatal Resuscitation Program (NRP), as appropriate to the patient being sedated. The Dedicated Observer must be credentialed in Moderate Sedation as defined below. Whenever the Dedicated Observer is not a Credentialed Practitioner the following applies:

2.6.1.1.1.1 The sedative medication must be ordered by a Credentialed Practitioner (MD, DO, DDS, DPM). Its administration, including additional doses, must be supervised by a Credentialed Practitioner. The supervising Credentialed Practitioner can be the person performing the diagnostic/therapeutic procedure.

2.6.1.1.1.2 The supervising Credentialed Practitioner must be certified in ACLS, PALS and/or Neonatal Resuscitation Program (NRP), as appropriate to the patient being sedated.

2.6.1.1.1.3 The supervising Credentialed Practitioner must be credentialed in Moderate Sedation as defined below.

2.6.1.1.2 **The Person Performing the Diagnostic/Therapeutic Procedure:**

2.6.1.1.2.1 This person must be qualified to perform the diagnostic/therapeutic procedure.

2.6.1.1.2.2 This person cannot also be the Dedicated Observer.

2.6.1.1.2.3 However, in cases where the Dedicated Observer is not a Credentialed Practitioner the person performing the procedure can also be the person who supervises the Dedicated Observer.

2.6.1.1.2.4 This person does not require a credential in Moderate Sedation unless they are also supervising the Dedicated Observer.

2.6.1.2 **Deep Sedation**

2.6.1.2.1 **The Dedicated Observer:** The patient's vital signs, level of consciousness, pain assessment and condition must be continually monitored by a single Dedicated Observer. The Dedicated Observer for a patient receiving deep sedation must be a Credentialed Practitioner who is qualified by training and achieved competency as defined by the organization. The Dedicated Observer for deep sedation cannot be a RN, PA or NP. The Dedicated Observer will be available to the patient from the time of administration of sedation/analgesia medication until recovery is judged adequate

or the care of the patient is transferred to appropriate personnel performing recovery care. The Dedicated Observer cannot also be involved in performing the diagnostic/therapeutic procedure. The Dedicated Observer must be certified in ACLS, PALS and/or Neonatal Resuscitation Program (NRP), as appropriate to the patient being sedated. The Dedicated Observer must be credentialed in both

2.6.1.2.1.1 Moderate Sedation as defined below

2.6.1.2.1.2 Deep Sedation as defined below

2.6.1.2.2 **The Person performing the diagnostic/therapeutic procedure:**

2.6.1.2.2.1 This person must be qualified to perform the diagnostic/therapeutic procedure.

2.6.1.2.2.2 This person cannot also be the Dedicated Observer

2.6.1.2.2.3 This person does not need to be a Credentialed Practitioner

2.6.1.2.2.4 This person does not require a credential in deep sedation or advanced airway management.

2.6.2 All Credentialed Practitioners qualified to sedate and monitor patients for procedures are required to be approved by the Credentials Committee, Medical Board with final approval by the Board of Directors. Credentialing will be performed every two years at the time of reappointment. These credentials will be maintained by the Medical Staff Office and Academic Affairs. Individual practitioner's credentials may be verified on the ITWEB.

2.6.3 Nurses and allied health professionals, who function as direct observers in moderate sedation, must be qualified by training and competency evaluations to insure optimal patient care and safety. The Department of Nursing is responsible to insure nursing competency and clinical expertise as defined by the organization. The competencies for nurses caring for and monitoring sedated patients will be maintained by the Department of Nursing. Competency will be evaluated annually.

2.6.4 The credentialing process will focus on the practitioner's relevant training and experience, the ability to assess the patient prior to the procedure; to know the appropriate doses and effect of drugs, to operate and document monitoring, to recognize airway compromise, loss of consciousness, cardiopulmonary decompensation and to be able to intervene in a timely fashion and begin resuscitation of the patient as needed.

2.6.5 All persons involved in the care of patients sedated for procedures (Credentialed Practitioners, nurses and allied health professionals) will be provided with:

2.6.5.1 Current Sedation Policy available on ITWEB

2.6.5.2 Sedation Education

2.6.5.3 Unit specific information from Division Head and/or Unit Coordinator

2.6.6 ***Administration of Moderate Sedation*** – The credentialed practitioner responsible for the administration of moderate sedation must be qualified and have the appropriate credentials to rescue patients from deep sedation and are competent to manage a compromised airway and to provide adequate oxygenation and ventilation.

2.6.7 ***Administration of Deep Sedation*** – The credentialed practitioner responsible for the administration of deep sedation must be qualified and have the appropriate credentials to rescue patients from general anesthesia and are competent to manage an unstable cardiovascular system as well as a compromised airway, inadequate oxygenation and ventilation. They have obtained credentialing and demonstrate competency in Advanced Airway Management beyond that required for the management of patients receiving moderate sedation. Individual Departments shall, develop educational programs, specific to their department, which enables their staff to obtain credentialing to administer deep sedation. To meet criteria, the program must include both didactic and clinical aspects. Upon completion, the physician must demonstrate appropriate use of deep sedating agents and competency in advanced airway skills. Approval of the program and its content will be by the Chairman of the Department of Anesthesia.

2.6.8 Emergency Medicine Graduates of an approved residency and/or fellowship accredited by the ACGME or American Osteopathic Association are qualified for all forms of analgesia and all levels of sedation in all ages; as such training is part of their program core curricula and accreditation requirements. At pre-determined

intervals (2years), the ED chair shall re-evaluate the sedation privileges granted for each practitioner.

2.6.9 For members of the Oral Maxilliofacial Surgery Department who request deep sedation privileges, they must have:

2.6.9.1 completed a residency training in oral and maxillofacial surgery and must meet at least one of the following requirements:

2.6.9.1.1 Be a diplomate of the American Board of Oral and Maxillofacial Surgery;

2.6.9.1.2 Be a fellow of the American Association of Oral and Maxillofacial Surgeons; or

2.6.9.1.3 Be a graduate of an Oral and Maxillofacial Residency Program accredited by CODA

2.6.9.2 These physicians are qualified for all forms of analgesia and all levels of sedation in all ages; as such training is part of their program core curricula and accreditation requirements. At pre-determined intervals (2years), the OMFS chair shall re-evaluate the sedation privileges granted for each practitioner.

2.7 PATHWAY - SEDATED PROCEDURE

2.7.1 Prior to Procedure: Patient Preparation

2.7.1.1 Prior to the procedure the patient must have a pre-sedation assessment/evaluation, which includes a review of the current comprehensive inpatient H&P. When an ambulatory patient's H&P was done within 30 days prior to registration, an updated physical examination shall be performed immediately prior to procedure documenting any changes in the patient's condition. Assessment/evaluation includes the following (see appendix 9 for forms):

2.7.1.1.1 Indication for the procedure

2.7.1.1.2 The patient's history including:

2.7.1.1.2.1 Important medical conditions especially cardiopulmonary status

2.7.1.1.2.2 Allergies or adverse drug reactions

2.7.1.1.2.3 Prior sedative or anesthesia experiences

2.7.1.1.2.4 Potential for pregnancy

2.7.1.1.2.5 Appropriate fasting interval for the elective case (see appendix 4). In urgent, emergent, or other situations in which the

gastric emptying is impaired, the potential for pulmonary aspiration of gastric contents must be considered in determining (1) the target level of sedation, (2) whether the procedure should be delayed, or (3) whether the trachea should be protected by intubation.

2.7.1.1.3 Aspiration risk factors (see appendix 5)
2.7.1.1.4 Physical assessment including:
2.7.1.1.5 ASA physical status (see appendix 1)
2.7.1.1.6 Examination of the Airway (see appendices 2 and 3)
2.7.1.1.7 baseline vital signs with baseline oxygen saturation
2.7.1.1.8 weight
2.7.1.1.9 cardiac and pulmonary status
2.7.1.1.10 general neurological status, mental status and level of consciousness
2.7.1.1.11 Appropriate laboratory tests
2.7.1.1.12 Informed consent by responsible adult
2.7.1.1.13 For children and adult out-patients - a responsible adult escort
2.7.1.1.14 An assessment of the need for blood and blood component transfusion when relevant
2.7.1.1.15 A plan for sedation
2.7.1.1.16 A plan for nursing care
2.7.1.1.17 Determination that the patient is a suitable candidate for the procedure and sedation.

2.7.1.2 Prior to the administration of moderate or deep sedation, all practitioners caring for the patient must perform a time out as per the established process for NHCC.

2.7.1.3 Reevaluation of the patient immediately prior to the administration of moderate or deep sedation is required.

2.7.2 **During the Procedure: Monitoring and Documentation**

2.7.2.1 Documentation on an approved sedation record is required. When the procedure is performed in a critical care setting, use of the approved sedation record supersedes the critical care flow sheet documentation for the duration of the procedure. The following is required:

2.7.2.1.1 Physician order for all sedative medications. A physician's signature on the Sedation Procedure Record constitutes an order.
2.7.2.1.2 Documentation of the time, route, dose and effect of all medications.
2.7.2.1.3 Documentation of Oxygen therapy in liters/min. and by means delivered (e.g. nasal cannula).
2.7.2.1.4 All doses of drugs must be titrated to the desired effect, allowing sufficient time for circulation and observation of variable responses (see appendix 7).
2.7.2.1.5 If the patient is sedated in an area remote from the procedure area, the patient must be transported to the procedure area by a dedicated observer with a level of monitoring appropriate to the level of sedation.
2.7.2.1.6 Continuous monitoring and documentation of the following every 5 minutes (see appendix 9 for forms):
2.7.2.1.6.1 Heart rate
2.7.2.1.6.2 Respiratory rate and adequacy of pulmonary ventilation
2.7.2.1.6.3 SpO2 by pulse oximetry
2.7.2.1.6.4 Noninvasive blood pressure
2.7.2.1.6.5 Level of consciousness
2.7.2.1.6.6 EKG monitoring should be available and utilized for all patients having deep sedation and all others at risk of having cardiac ischemia and/or dysrhythmias.
2.7.2.1.6.7 End-Tidal CO2 Monitoring is required for Deep Sedation.

2.7.3 ***Recovery and Disposition*:**
2.7.3.1 The patient may be transferred from the procedure area to a recovery area when the patient is:
2.7.3.1.1 Able to maintain a patent airway with intact reflexes (swallow, cough and gag)
2.7.3.1.2 Responsive to verbal and tactile stimuli as appropriate
2.7.3.1.3 Vital signs are stable with satisfactory SpO2.

2.7.3.2 If the recovery area is remote from the procedure area, the patient must be monitored in transit by a dedicated observer with a level of monitoring appropriate to the level of sedation.

2.7.3.3 **During recovery from Moderate Sedation:**

2.7.3.3.1 The Aldrete Post Anesthesia Scoring system must be used.

2.7.3.3.2 Vital signs must be taken every ten minutes for a minimum of 30 minutes or until fully recovered.

2.7.3.3.3 If antagonist drugs (Naloxone, Flumazenil) have been administered, the patient must be observed for a minimum of 2 hours after the procedure, watching for resedation.

2.7.3.4 **During recovery from Deep Sedation:**

2.7.3.4.1 The Aldrete Post Anesthesia Scoring system must be used.

2.7.3.4.2 Any patient receiving deep sedation will be monitored by a deep sedation dedicated observer (credentialed physician) until the patient is able to maintain a patent airway with intact reflexes (swallow, cough, and gag) and is responsive to verbal and tactile stimuli as appropriate. Only then may the patient be transferred to the unit specific recovery area for post-sedation care. Alternatively, a patient can be recovered by someone trained and qualified to provide phase 1 recovery, as defined by The American Society of PeriAnesthesia Nurses.

2.7.3.4.3 Vital signs must be taken every ten minutes for a minimum of 30 minutes or until fully recovered.

2.7.3.4.4 If antagonist drugs (Naloxone, Flumazenil) have been administered, the patient must be observed for a minimum of 2 hours after the procedure, watching for resedation.

2.7.3.5 **An inpatient may be discharged from the recovery area when:**

2.7.3.5.1 Vital signs are stable

2.7.3.5.2 Aldrete Score of 8 or greater, or return to baseline.

2.7.3.5.3 Tolerating fluids as applicable

2.7.3.5.4 Voiding, as applicable

2.7.3.5.5 Temperature is baseline or normal

2.7.3.6 An RN may discharge the patient utilizing the above criteria

2.7.3.7 **An ambulatory patient may be discharged from the procedure suite when:**

2.7.3.7.1 Fully awake
2.7.3.7.2 Vital signs are stable
2.7.3.7.3 Aldrete Score of 8 or greater, or return to baseline.
2.7.3.7.4 Hydration is adequate
2.7.3.7.5 Temperature is baseline or normal
2.7.3.7.6 Able to walk unassisted - where appropriate
2.7.3.7.7 Accompanied by a responsible adult escort
2.7.3.7.8 Advised regarding aftercare with written and verbal instructions

2.7.3.8 **An** RN, NP, PA or other credentialed provider assesses the patient's readiness for discharge using the above criteria.

2.7.3.9 The responsible attending physician must write the discharge order and write a discharge note including patient status.

2.7.3.10 Standard institutional Ambulatory Care protocols must be employed regarding follow-up and care of post discharge complications

2.8 QUALITY MANAGEMENT / PROCESS IMPROVEMENT

2.8.1 Departmental representatives are required to submit quarterly sedation data reports to the Department of Anesthesia. The report must include the number and types of procedures done, complications and results of quarterly Performance Improvement monitoring and activities. Any adverse events or instance where a reversal agent was administered must be reported and reviewed in a timely manner.

REFERENCES TO REGULATIONS AND OR OTHER RELATED POLICIES:

APPENDICES:

1. ASA Physical Status Classification
2. Airway Assessment for Sedation
3. Mallampati Score
4. Fasting Protocol for Elective Procedures
5. Factors Associated with Increased Risk of Aspiration
6. Depth of Sedation Continuum
7. Suggested Drugs and Dosages for Sedation
8. Reference to relevant Joint Commission and ASA Standards
9. Forms
10. Aldrete score

Appendix 1

AMERICAN SOCIETY OF ANESTHESIOLOGISTS

PHYSICAL STATUS CLASSIFICATION

CLASS I
No organic, physiological, biochemical or psychiatric disturbance. The pathologic process for which operation is to be performed is localized and is not a systemic disturbance.

CLASS II
Mild to moderate systemic disturbance caused either by the condition to be treated or by other pathophysiological processes.

CLASS III
Severe systemic disturbance or disease from whatever cause, even though it may not be possible to define the degree of disability with finality.

CLASS IV
Severe systemic disorder already life-threatening, not always correctable by the procedure.

CLASS V
Moribund patient who has little chance of survival, but is submitted to the procedure in desperation.

CLASS VI
Organ donor.

Appendix 2

AIRWAY ASSESSMENT PROCEDURES FOR SEDATION

Positive pressure ventilation, without endotracheal intubation, may be necessary if respiratory compromise develops during sedation / analgesia. This may be more difficult in patients with atypical airway anatomy. Some airway abnormalities may increase the likelihood of airway obstruction during spontaneous ventilation.

***Factors that may be associated with difficulty in airway management are**:*

HISTORY
- Previous problems with anesthesia or sedation
- Stridor, snoring or sleep apnea
- Dysmorphic facial features
- Tumor in airway
- Trauma to airway
- Radiation therapy to head, neck
- Advanced rheumatoid arthritis

PHYSICAL EXAMINATION

Habitus -
Significant obesity (especially involving the face, neck and Thorax)

Head and Neck -
Short neck, limited neck extension, decreased distance from the top of the mandible to the top of the thyroid cartilage (<3 cm in an adult); neck mass, cervical spine disease or trauma, tracheal deviation, decreased tissue compliance

Mouth -
Small opening (<3 cm in an adult); edentulous or protruding incisors; loose or capped teeth; high arched palate; macroglossia; tonsillar hypertrophy; non visible uvula

Jaw -
Micrognathia, retrognathia, trismus, significant malocclusion

Appendix 3

MALLAMPATI SCORE

This scoring system was first introduced in 1985 in the Canadian Anesthesia Society Journal based on the work of Mallampati. Place the patient in a seated position and have them hold head in a neutral position with mouth open wide and the tongue fully extended. The paramedic should visualize on of the following classifications:

Class I (easy)—visualization of the soft palate, fauces, uvula, and both anterior and posterior pillars

Class II—visualization of the soft palate, fauces, and uvula

Class III—visualization of the soft palate and the base of the uvula

Class IV (difficult)—the soft palate is not visible at all

Appendix 4

FASTING PROTOCOL FOR SEDATION AND ANALGESIA FOR ELECTIVE PROCEDURES

The following guidelines are intended for patients with normal airway and gastroesophageal anatomy. Several factors are associated with delayed gastric emptying and/or increased risk of aspiration - (see Appendix 4). When risk of aspiration is increased, a longer fasting interval is warranted and antacid prophylaxis or intubation may be indicated.

1	Chewing gum (chewed only, not swallowed)	**No delay**
2	Clears, clear dissolving candy e.g. tic-tacs, life savers (not chocolate)	**2 Hours**
3	Breast Milk	**4 Hours**
4	Formula, light carbohydrate meal (toast or crackers not containing fat, chocolate, protein or dairy products)	**6 Hours**
5	Fat*, protein, non-human milk	**8 Hours**

*This includes milk, formula and breast milk (high fat content may delay gastric emptying).

There are no data to establish whether a 6 - 8 hr fast is equivalent to an overnight fast before sedation / anesthesia.

Appendix 5

FACTORS ASSOCIATED WITH INCREASED RISK OF ASPIRATION

- Abnormal Airway
- Morbid Obesity
- Hiatus Hernia with Reflux
- Abnormal Autonomic Function
- Prior Gastric Surgery
- Pregnancy
- "Full Stomach" or Delayed Gastric Emptying
- Altered Mental State
- Spinal Cord Injury with Paraplegia or Quadriplegia
- Narcotics
- Pain

Appendix 6

DEPTH OF SEDATION CONTINUUM

Approved by the ASA House of Delegated on October 13, 1999 and amended on October 27, 2004

	Minimal Sedation Analgesia	***Moderate Sedation***	***Deep Sedation***	***General Anesthesia***
Responsiveness	Normal response to verbal stimulation	Purposeful response to verbal or tactile	Purposeful response following repeated or painful stimulation	Unarousable even with painful stimulus
Airway	Unaffected	No intervention required	Intervention may be required	Intervention often required
Spontaneous Ventilation	Unaffected	Adequate	May be inadequate	Frequently inadequate
Cardiovascular Function	Unaffected	Usually maintained	Usually maintained	May be impaired

Appendix 7

MEDICATIONS FOR SEDATION

The following are suggested doses. However, lower doses can have an unanticipated outcome.
Any use of these medications for pre-procedural sedation invokes the Sedation Protocol

MEDICATION	DOSE	COMMENTS
SEDATIVES		
Midazolam *(Versed*)	Adult: 0.05 - 0.1 mg/kg IV Max 5 - 10 mg Peds: 0.05 - 0.1 mg/kg IV 0.5 - 0.7 mg/kg po Max: 20 mg po	• Additive depression with narcotics
Lorazepam (*Ativan*)	Adult: 0.05 mg/kg Max: 4 mg	• Long acting • Beware cumulative effect
Diazepam (*Valium*)	Adult: 0.05 – 0.1 mg/kg IV Max : 10 mg	• Pain on injection • Half as potent as Versed
Chloral hydrate	Peds: 30 - 100 mg/kg po/pr Max: 2 gm dose	• Must be given under supervision
ANALGESICS		
Fentanyl (*Sublimaze)*	Adult/Peds: 1-3 mcg/kg IV	• Potent synthetic • Depressed CO2 response • May outlast Narcan
Morphine	Adult/Peds: 0.1 mg/kg IV	• Prototype narcotic • Histamine release • Long acting • May outlast Narcan

ANTAGONISTS		
Naloxone *(Narcan)* (for Narcotics)	Adult: 0.1-0.2 mg IV q 2-3 min to desired effect Peds: 0.1 - 0.2 mg/kg IV q 2-3 min	• Brief duration of action 30 - 45 min • Potential for residual resedation
Flumazenil (*Romazicon*) (For Benzodiazepines)	Adult: 0.1 – 0.2mg IV to desired effect Adult Max: 3 mg Peds Dose: 0.01mg / kg Peds Max: 0.2mg/dose 0.05 mg/kg	• May precipitate seizures • Residual resedation

DEEP SEDATION / ANESTHETICS

These medications are commonly used to induce and/or maintain general anesthesia where loss of protective airway reflexes is anticipated. Therefore, these medications are not suitable for conscious sedation/analgesia.

Their use is restricted to specifically credentialed physician practitioners.

MEDICATION	DOSE	COMMENTS
DEEP SEDATION / ANESTHETICS		
Propofol (*Diprivan*)	Adult: 1mg/kg followed by 0.5mg/kg q 3-5 minutes as needed Peds: 1mg/kg followed by 0.5 mg/kg every 3-5 minutes as needed	• Short acting hypnotic • Respiratory depressant • Antiemetic • Onset within 30 seconds • IV lasts 3-10 minutes depending on dose • No analgesic properties • Vasodilator and Negative Inotrope • May need to reduce dose in elderly
Etomidate (*Amidate*)	Adult: 0.1-0.2mg/kg IV push over 30-60 sec. Then 0.05mg/kg q 3-5 min. Peds: 0.1 – 0.3mg/kg	• Irritating at injection site. • Lasts: (Dose dependent) 0.1mg/kg – 2-3 min 0.3mg/kg – 4-10 min
Ketamine	Adults: 1 to 2mg/kg IV over 1-2 min. Then 0.25-0.5 mg/kg q 5-10 min Peds: 0.5 – 1.0 mg/kg	• Onset within 30 seconds • IV – lasts 5 to10 minutes. • Maximum concentration for IV push - 50 mg/ml Recovery 1-2 hours

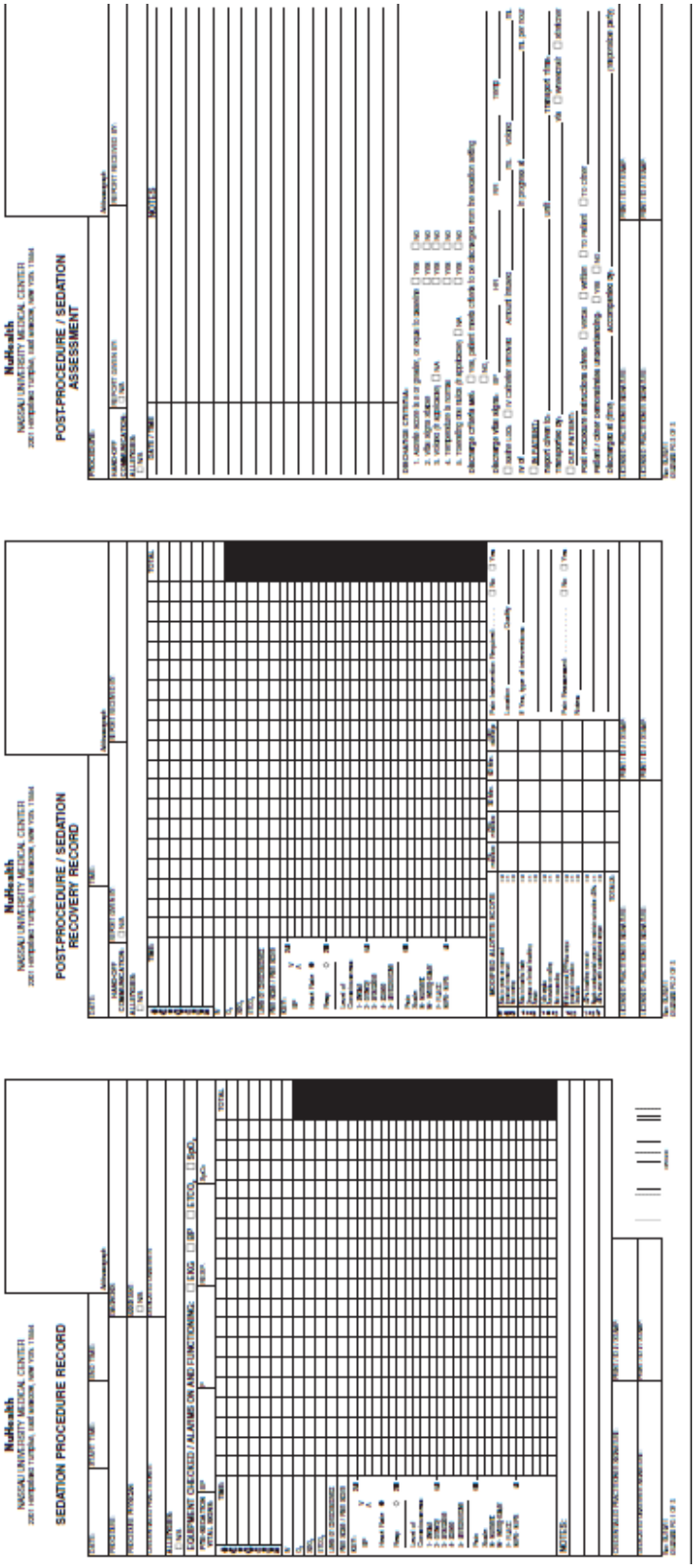
Appendix 8

RELEVANT JOINT COMMISSION and ASA STANDARDS

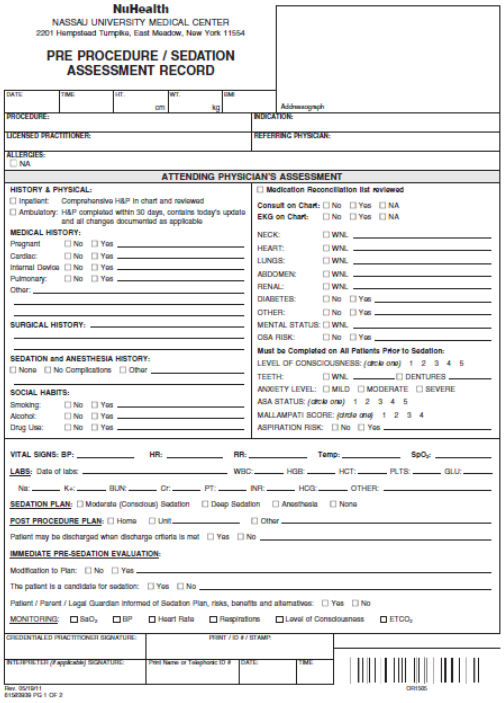
1. To review the relevant Joint Commission Standards please see 2015 Hospital Accreditation Standards: PC.03.01.01 to PC.03.01.07, RC.02.01.03, PI.01.01.01.
2. To review the relevant American Society of Anesthesia Standards see "Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists" in Anesthesiology 2012; 96:1004-1017

Appendix 9 Forms:

SEDATION PROCEDURE RECORD (INCLUDES POST-PROCEDURE/SEDATION RECOVERY RECORD AND POST-PROCEDURE/SEDATION ASSESSMENT)



PRE PROCEDURE/SEDATION ASSESSMENT RECORD



NuHealth
NASSAU UNIVERSITY MEDICAL CENTER
2201 Hempstead Turnpike, East Meadow, New York 11554

PRE PROCEDURE / SEDATION ASSESSMENT RECORD

DATE: | TIME: | HT. cm | WT. kg | BMI | Addressograph

PROCEDURE: | INDICATION:

LICENSED PRACTITIONER: | REFERRING PHYSICIAN:

ALLERGIES: ☐ NA

ATTENDING PHYSICIAN'S ASSESSMENT

HISTORY & PHYSICAL:
☐ Inpatient: Comprehensive H&P in chart and reviewed
☐ Ambulatory: H&P completed within 30 days, contains today's update and all changes documented as applicable

MEDICAL HISTORY:
Pregnant ☐ No ☐ Yes
Cardiac ☐ No ☐ Yes
Internal Device ☐ No ☐ Yes
Pulmonary: ☐ No ☐ Yes
Other:

SURGICAL HISTORY:

SEDATION and ANESTHESIA HISTORY:
☐ None ☐ No Complications ☐ Other

SOCIAL HABITS:
Smoking: ☐ No ☐ Yes
Alcohol: ☐ No ☐ Yes
Drug Use: ☐ No ☐ Yes

☐ Medication Reconciliation list reviewed
Consult on Chart: ☐ No ☐ Yes ☐ NA
EKG on Chart: ☐ No ☐ Yes ☐ NA

NECK: ☐ WNL
HEART: ☐ WNL
LUNGS: ☐ WNL
ABDOMEN: ☐ WNL
RENAL: ☐ WNL
DIABETES: ☐ No ☐ Yes
OTHER: ☐ No ☐ Yes
MENTAL STATUS: ☐ WNL
OSA RISK: ☐ No ☐ Yes

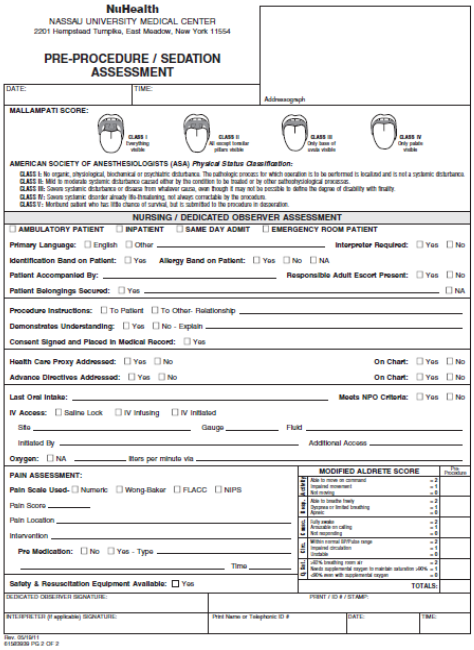
Must be Completed on All Patients Prior to Sedation:
LEVEL OF CONSCIOUSNESS: (circle one) 1 2 3 4 5
TEETH: ☐ WNL ☐ DENTURES
ANXIETY LEVEL: ☐ MILD ☐ MODERATE ☐ SEVERE
ASA STATUS: (circle one) 1 2 3 4 5
MALLAMPATI SCORE: (circle one) 1 2 3 4
ASPIRATION RISK: ☐ No ☐ Yes

VITAL SIGNS: BP: HR: RR: Temp: SpO_2:
LABS: Date of labs: WBC: HGB: HCT: PLTS: GLU:
Na: K+: BUN: Cr: PT: INR: HCG: OTHER:
SEDATION PLAN: ☐ Moderate (Conscious) Sedation ☐ Deep Sedation ☐ Anesthesia ☐ None
POST PROCEDURE PLAN: ☐ Home ☐ Unit ☐ Other
Patient may be discharged when discharge criteria is met ☐ Yes ☐ No

IMMEDIATE PRE-SEDATION EVALUATION:
Modification to Plan: ☐ No ☐ Yes
The patient is a candidate for sedation: ☐ Yes ☐ No
Patient / Parent / Legal Guardian informed of Sedation Plan, risks, benefits and alternatives: ☐ Yes ☐ No
MONITORING: ☐ $EtCO_2$ ☐ BP ☐ Heart Rate ☐ Respirations ☐ Level of Consciousness ☐ $ETCO_2$

CREDENTIALED PRACTITIONER SIGNATURE: | PRINT / ID # / STAMP:
INTERPRETER (if applicable) SIGNATURE: | Print Name or Telephone ID # | DATE: | TIME:

Rev. 05/15/11
615853659 PG 1 OF 2



NuHealth
NASSAU UNIVERSITY MEDICAL CENTER
2201 Hempstead Turnpike, East Meadow, New York 11554

PRE-PROCEDURE / SEDATION ASSESSMENT

DATE: | TIME: | Addressograph

MALLAMPATI SCORE:

CLASS I: Everything visible
CLASS II: All except tonsilar pillars visible
CLASS III: Only base of uvula visible
CLASS IV: Only palate visible

AMERICAN SOCIETY OF ANESTHESIOLOGISTS (ASA) *Physical Status Classification:*
CLASS I: No organic, physiological, biochemical or psychiatric disturbance. The pathologic process for which operation is to be performed is localized and is not a systemic disturbance.
CLASS II: Mild to moderate systemic disturbance caused either by the condition to be treated or by other pathophysiological processes.
CLASS III: Severe systemic disturbance or disease from whatever cause, even though it may not be possible to define the degree of disability with finality.
CLASS IV: Severe systemic disorder already life-threatening, not always correctable by the procedure.
CLASS V: Moribund patient who has little chance of survival, but is submitted to the procedure in desperation.

NURSING / DEDICATED OBSERVER ASSESSMENT

☐ AMBULATORY PATIENT ☐ INPATIENT ☐ SAME DAY ADMIT ☐ EMERGENCY ROOM PATIENT

Primary Language: ☐ English ☐ Other | Interpretor Required: ☐ Yes ☐ No
Identification Band on Patient: ☐ Yes | Allergy Band on Patient: ☐ Yes ☐ No ☐ NA
Patient Accompanied By: | Responsible Adult Escort Present: ☐ Yes ☐ No
Patient Belongings Secured: ☐ Yes ☐ NA

Procedure Instructions: ☐ To Patient ☐ To Other- Relationship
Demonstrates Understanding: ☐ Yes ☐ No - Explain
Consent Signed and Placed in Medical Record: ☐ Yes

Health Care Proxy Addressed: ☐ Yes ☐ No | On Chart: ☐ Yes ☐ No
Advance Directives Addressed: ☐ Yes ☐ No | On Chart: ☐ Yes ☐ No

Last Oral Intake: | Meets NPO Criteria: ☐ Yes ☐ No
IV Access: ☐ Saline Lock ☐ IV Infusing ☐ IV Initiated
Site | Gauge | Fluid
Initiated By | Additional Access
Oxygen: ☐ NA liters per minute via

PAIN ASSESSMENT:
Pain Scale Used- ☐ Numeric ☐ Wong-Baker ☐ FLACC ☐ NIPS
Pain Score
Pain Location
Intervention
Pre Medication: ☐ No ☐ Yes - Type
Time

MODIFIED ALDRETE SCORE

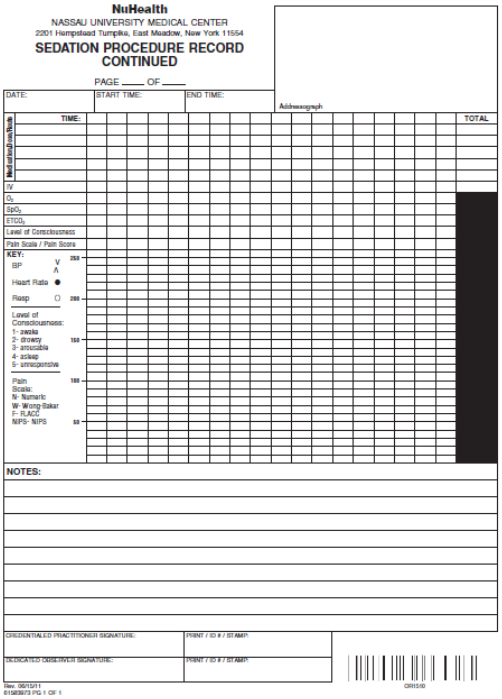
		Pre Procedure
Activity	Able to move on command = 2; Impaired movement = 1; Not moving = 0	
Resp	Able to breathe freely = 2; Dyspnea or limited breathing = 1; Apneic = 0	
Circ	Fully awake = 2; Arousable on calling = 1; Not responding = 0	
Cons	Within normal BP/Color range = 2; Impaired circulation = 1; Unstable = 0	
O2 Sat	>92% breathing room air = 2; Needs supplemental oxygen to maintain saturation >90% = 1; <90% even with supplemental oxygen = 0	
	TOTALS:	

Safety & Resuscitation Equipment Available: ☐ Yes

DEDICATED OBSERVER SIGNATURE: | PRINT / ID # / STAMP:
INTERPRETER (if applicable) SIGNATURE: | Print Name or Telephone ID # | DATE: | TIME:

Rev. 05/15/11
615853659 PG 2 OF 2

SEDATION PROCEDURE CONTINUATION RECORD



NuHealth
NASSAU UNIVERSITY MEDICAL CENTER
2201 Hempstead Turnpike, East Meadow, New York 11554

SEDATION PROCEDURE RECORD CONTINUED

PAGE ____ OF ____

DATE: | START TIME: | END TIME: | Addressograph

Medications/Route | TIME: | TOTAL

IV
O_2
SpO_2
$ETCO_2$
Level of Consciousness
Pain Scale / Pain Score

KEY:
BP V Λ
Heart Rate ●
Resp O

Level of Consciousness:
1- awake
2- drowsy
3- arousable
4- asleep
5- unresponsive

Pain Scale:
N- Numeric
W- Wong-Baker
F- FLACC
NIPS- NIPS

250 200 150 100 50

NOTES:

CREDENTIALED PRACTITIONER SIGNATURE: | PRINT / ID # / STAMP:
DEDICATED OBSERVER SIGNATURE: | PRINT / ID # / STAMP:

Rev. 05/15/11
615853673 PG 1 OF 1

Appendix 10

Aldrete Score

Aldrete Score
0 →2

Activity:

Able to Move on Command	2
Impaired Movement	1
Not Moving	0

Respiration:

Able to Breathe Freely	2
Dyspnea or Limited Breathing	1
Apneic	0

Consciousness:

Fully Awake	2
Arousable on Calling	1
Not Responding	0

Circulation:

Within Normal BP/Pulse Range	2
Impaired Circulation Saturation >90%	1
Unstable	0

Oxygen Saturation (Pulse Oximetry)

>92% on Room Air	2
Needs Supplemental Oxygen to Maintain Saturation >90%	1
<90% even With Supplemental Oxygen	0