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<tr><td colspan="3" rowspan="3">Title: Sedation - Deep - for the Performance of Procedures on Adults</td><td colspan="2">Original Effective Date: Feb 07, 2007</td></tr>
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Southlake Regional Health Centre shall provide deep sedation for patients in appropriate situations in a safe and effective manner. The Deep Sedation policy is applicable to all patients who receive medications for the purposes of **deep sedation**.

Note: For deep sedation administered in the main Operating Rooms, staff are exempt from the Deep sedation policy and must follow their unit specific standards.

Definition:

Deep Sedation is the administration of pharmacological agent(s) with the intent to produce a state of sedation and analgesia and to facilitate the performance of a procedure, in which:

- Patient's level of consciousness is depressed to the point when the patient cannot be easily roused but responds purposefully following repeated or painful stimuli **and** the ability to independently maintain ventilatory function is expected to be impaired. The patient may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate.
- Cardiovascular function is maintained spontaneously.
- The patient's response to sedation is monitored using the Richmond Agitation Sedation Scale (RASS) as per current unit practice (see RASS chart below)
- The patients response is consistent with a RASS of -4.

See Appendix A for definitions of general anesthesia, deep sedation and moderate/conscious sedation.

Before Administering Deep Sedation:

- In addition to the healthcare team's assessment, the physician must document a complete history including medications, the indication for the procedure and relevant co morbid processes, an appropriate physical examination, appropriate laboratory and radiologic investigations. This physician assessment and documentation cannot be delegated to any other personnel.
- The following is be confirmed by the physician (or an anesthesia assistant (AA) in collaboration with a supervising anesthesiologist) and nurse prior to administering deep sedation:
  - appropriate documentation is immediately available
  - review of the written consent
  - patient is in a fasting status - no clear fluids for 2 hours, no solids for 6-8 hours.
  - adequate intravenous access
  - continuous C02 monitoring, where available
  - appropriate routine medications have been taken prior to the procedure
  - ordered and available medications to manage overdose of medications or reactions to medications (e.g. anaphylaxis) and reversal agents including flumazenil (a benzodiazepine antagonist) and naloxone (an opioid narcotic antagonist) are available and nearby

- appropriate equipment, including endotracheal tube with laryngoscope, oral airway, oxygen mask/ambu bag, vital signs monitor, suction and a cardiac monitor are in the room or just outside the doorway.
- a code cart for resuscitation from cardiac or respiratory emergencies is available and nearby

Administration and Recovery with Deep Sedation:

Patient care areas that administer deep sedation must provide at a minimum:

- An anesthesiologist, or 2nd physician whose sole responsibility is the care of the sedated patient, or an AA, in collaboration with a supervising anesthesiologist, who ***must be present*** during the procedure and remain until the patient is awake, cooperative, oriented (RASS of 0) **or** responding to commands (RASS of -1 to -2), able to maintain a patent airway, is hemodynamically stable and has a systolic BP within 20 mmHg of the patient's pre-procedure systolic BP or systolic BP greater than 100 mmHg. **Note the exception for patient recovery** - in Post anesthetic care unit (PACU) Phase 1 Recovery RNs have the additional education necessary to **recover patients** safely without an anesthetist present, including patients who do not have a RASS of 0.
- Documentation in on the Anesthetic Record SL#0602 by the physician or AA that provided the sedation.
- A Nurse(s) or AA or Respiratory Therapist (RT) in addition to two physicians, must continuously support and monitor the patient during and after the procedure, until the patient has returned to a stable, pre-procedure state and until a patent airway returns. **Note:** deep sedation may be performed **without an RRT present** in the main operating rooms, PACU, ambulatory day care, critical care areas, the medical arts building and electrophysiology lab due to the presence of staff who are repeatedly exposed to such procedures that are assisting the sedating physician/AA .
- Continuous blood pressure monitoring, ECG monitoring and oxygen saturation monitoring throughout the procedure. $C0_2$ monitoring must be used where available.
- 2 hours of monitoring of patients who receive **reversal agents** following the administration of the antagonists.
- Maintenance of an intravenous access until **discharge criteria** are met (refer to Deep Sedation standard of care).
- Written, procedure-specific guidelines, upon discharge, on post procedure care including wound management if appropriate, management of pain, and/or complications from the procedure or anesthetic and the resumption of usual medications, diet and activities.
- Instructions to the patient that they must refrain from driving or operating dangerous machinery for 24 hours and that a responsible adult needs to stay with patient for 24 hours.

Table 1: Richmond Agitation Sedation Scale (RASS)

SCORE	TERM	DESCRIPTION
+4	Combative	Overtly combative or violent; immediate danger to staff
+3	Very agitated	Pulls on or removes tube(s) or catheter(s) or has aggressive behavior toward staff
+2	Agitated	Frequent nonpurposeful movement OR patient–ventilator dyssynchrony
+1	Restless	Anxious or apprehensive but movements not aggressive or vigorous
0	Alert and calm	
-1	Drowsy	Not fully alert, but has sustained (more than 10 seconds) awakening, with eye contact, to voice
-2	Light sedation	Briefly (less than 10 seconds) awakens with eye contact to voice
-3	Moderate sedation	Any movement (but no eye contact) to voice
-4	Deep sedation	No response to voice, but any movement to physical stimulation
-5	Unarousable	No response to voice or physical stimulation

Am J Repir Crit Care Med 2002, JAMA 2003

APPENDIX A

	General Anaesthesia	**Deep Sedation**	**Moderate/ Conscious Sedation**
Definition and Patient Characteristics	General Anaesthesia is the administration of pharmacological agent(s) with the intent to produce a state of unconsciousness, analgesia, muscle	Deep Sedation is the administration of pharmacological agent(s) with the intent to produce a state of sedation and analgesia (see below) to facilitate the performance of a procedure, in which: • Patient's level of consciousness is depressed to the point when	Moderate sedation is defined as the administration of pharmacological agent(s) with the intent to produce a state of sedation and analgesia, to facilitate the performance of a procedure, in which:

	relaxation and control of autonomic reflexes to facilitate the performance of an invasive procedure. Scoring of the patient is with Post Anesthetic Score.	the patient cannot be easily roused but responds purposefully following repeated stimuli or painful stimuli **AND** the ability to independently maintain ventilatory function **is expected to be impaired.** The patient may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate. • Cardiovascular function is maintained spontaneously. • The patients response is consistent with a RASS of -4.	• Protective airway reflexes are maintained (gag reflex may be absent; cough reflex must be present) • The patient retains the ability to maintain a normal level of ventilation independently and continuously • The patient retains the ability to respond to physical stimulation and verbal command • Cardiovascular function is maintained in patients who are hemodynamically stable • The patient's response is consistent with a RASS score of -1 to -3
Staffing requirements	An anesthesiologist is required. Recovery must occur in a phase 1 setting or patients must meet Southlake's bypass standard to go directly to a phase 2 recovery. Transfer of care is to an RN with additional Recovery Room skills until a patient has a RASS of 0 or -1. MRI GA procedures have an anesthetist, RRT and MRT present. Patient is accompanied by anesthetist and RT upon transfer to PACU.	An anesthesiologist, or 2nd physician whose sole responsibility is the care of the sedated patient, or an AA (in collaboration with a supervising anesthesiologist) who ***must be present*** during the procedure and remain until the patient is awake, cooperative, oriented (RASS of 0) **or** responding to commands (RASS of -1 to -2), able to maintain a patent airway, is hemodynamically stable and has a systolic BP within 20 mmHg of the patient's pre-procedure systolic BP or systolic BP greater than 100 mmHg. **Note the exception for patient recovery** - in Post Anesthetic Care Unit (PACU) Phase 1 Recovery RNs have additional education to **recover patients** safely without an anesthetist or RRT present including patients who do not have a RASS of 0. ADC/SDC: Patients can be cared for in a Phase 2 recovery by an RN with additional education or RPN when the patient has a RASS of 0 or -1 as these nurses have additional education.	RN or AA (AA is in collaboration with a supervising anesthetist) during the procedure and post procedure until the patient is hemodynamically stable and has a RASS score of 0 to -1. Patients can be cared for in a Phase 2 recovery when the patient has a RASS of 0 or -1 as nurses in these areas have additional training.