

#### DEPARTMENT OF HEALTH

PO Box 47852 · Olympia Washington 98504-7852

# Dental Quality Assurance Commission Moderate Sedation with Parenteral Agents Office On-site Inspection Form

Name of I	ractitioner Inspected:
Moderate	Sedation with Parenteral Agents Permit Number:
Location o	of Inspection (Address)
Telephone	e Number:
Date of In	spection:
Time of Ir	nspection:
ava	e: All office equipment and records related to patient care should be ilable for inspection by the evaluating practitioner. This inspection is intended to be punitive, it is an educational tool.
	Part 1
Office	e Equipment, Records, and Emergency Medications
A. Dent	tal Practitioner
1.	YES/NO – BLS Certificate Expiration Date:
2.	YES/NO – ACLS Certificate Expiration Date:
3.	YES/NO – PALS Certificate Expiration Date:

- 4. YES/NO Documentation of Advanced Sedation or Anesthesia Training
- B. **Staff -** Verify appropriate valid BLS/ACLS/PALS/DA Registration/EFDA License/Hygienist License/Dental Anesthesia Assistant Certification/ Anesthesia Monitor Training (14 hours) as applicable for each employee that assists and/or monitors in Moderate Sedation with Parenteral Agent cases.

Name.	Licenses/certifications Verified Type
	yes/no_
	yes/no
	yes/no
	yes/no
(Attack addition	and list if an account)

(Attach additional list if necessary)

#### C. Records

Review three charts of patients who have been treated with parenteral sedation in the inspected practice-previously selected by the inspected practitioner. (Note compliance by checking the entry line)

YES/NO – Medical history of the patients taken.

YES/NO – Physical evaluation of the patients completed.

- YES/NO Recording of monitoring of heart rate, blood pressure, and respiration every 5 minutes and the use of pulse oximetry/capnography as mandated by WAC 246-817-776.
- YES/NO Documentation of compliance with WAC 246-817-776(Discharge Criteria; to include vital signs, and mental condition with documentation noting that condition)
- YES/NO Accurate recording of medications administered, including amounts and times administered.

YES/NO – Documentation of the length of the procedure.

YES/NO – Documentation of any complication of anesthesia.

D.	Office Facility	y and Equ	iipment. (	(Check entry	y line for	compliance)
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1	ZES.	/N	O	-Nc	on-inv	asive	Blood	Pressure	M	<b>Conitors</b>

• Test/Calibration Dates:

YES/NO – Electrocardiographs/AED or defibrillator

• Test/Calibration Dates:

YES/NO – Pulse Oximeters.

• Test/Calibration Dates: \_\_\_\_\_

YES/NO – End-tidal Carbon Dioxide Monitors

• Test/Calibration Dates:

#### **Operating Theatre:**

- YES/NO Operating Theater large enough to accommodate the patient on a table or in an operating-dental chair adequately.
- YES/NO The operating theatre permits an operating team to move freely about the patient.

### **Operating Chair or Table:**

- YES/NO The operating chair or table permits the patient to be positioned so the operating team can maintain the airway.
- YES/NO The Operating chair or table permits the team to alter the patients position quickly in an emergency.
- YES/NO The operating chair or table provides a firm platform for the management of cardiopulmonary resuscitation.

## **Lighting System:**

YES/NO – The lighting system permits evaluation of the patient's skin and mucosal color.

- YES/NO There is a battery powered backup light system in place.
- YES/NO The backup lighting system is sufficient intensity to permit completion of any operation underway at the time of general power failure.

#### **Gas Storage:**

- YES/NO Medical Gases are stored in a secure, well ventilated area and are properly labeled.
- YES/NO Gas Cylinders have steadying devices/brackets in place where applicable.

#### **Suction Equipment:**

- YES/NO The suction equipment permits aspiration of the oral and pharyngeal cavities.
- YES/NO There is a back-up suction device available.

#### **Oxygen Delivery System:**

- YES/NO The oxygen delivery system has adequate full-face masks and appropriate connectors, and is capable of delivering oxygen to the patient under positive pressure.
- YES/NO There is an AMBU-bag, self-inflating resuscitator available for emergency use.
- YES/NO There is an backup-oxygen delivery system.

#### **Recovery Area:** (can be the operating theatre)

YES/NO – The recovery area has available oxygen.

YES/NO – The recovery area has available adequate suction.

YES/NO – The recovery area has adequate lighting.

YES/NO – The recovering patient can be observed by member of the staff at all times during the recovery period.

#### **Ancillary Equipment:**

- YES/NO There are appropriately sized oral and nasopharyngeal airways.
- YES/NO There are appropriately sized Laryngeal Mask Airways.
- YES/NO There is a tonsillar or pharyngeal type suction tip available to all office outlets.
- YES/NO There is a sphygmomanometer and stethoscope.
- YES/NO There is adequate equipment for the establishment and maintenance of an intravenous infusion and administration of drugs.

#### E. Drugs

YES/NO – Emergenc	y drugs/crash	cart is quickly accessible for
emergencies; o	lrugs are store	ed in a secure location per DEA
regulations; an	d there is an a	area to aseptically prepare medications
YES/NO – Vasopress	or Drug-(Alpl	ha and Beta adrenergic Stimulant)
Expiration Dat	:e:	
YES/NO – Corticoste	roid Drug	Expiration Date:
YES/NO – Bronchodi	ilator drug	Expiration Date:
YES/NO – ACLS/PA	LS medication	ns/drugs for treatment of cardiopulmonary
Arrest.	Ex	spiration Dates:
YES/NO –	Adenosine	
YES/NO –	Amiodarone_	
YES/NO –	Atropine	· · · · · · · · · · · · · · · · · · ·
YES/NO –	Epinephrine_	
YES/NO -	Lidocaine	
	Magnesium_	
YES/NO –	ASA Aspirin	

YES/NO – Narcotic Antagonist Drug Expiration Date:	
YES/NO – Benzodiazepine antagonist Drug Expiration Date:	
YES/NO – Antihistamine Drug Expiration Date:	
YES/NO – Anti-arrhythmic Drug Expiration Date:	
YES/NO – Anticholinergic/Parasympatholytic Drug. Expiration Date:	
YES/NO – Coronary Artery Vasodilator Drug Expiration Date:	_
YES/NO – Anti-hypoglycemic Agent Expiration Date:	
Additional Offices: (Satellite offices Addresses)	
(Attach additional list if necessary)	
I,(name of practitioner being	g
inspected), declare under penalty of perjury under the laws of the state of	
Washington that the above listed offices have equipment, drugs, facilities, and	
systems that are equally prepared to safely treat patients and respond to emerg	ency
situations as the office location that is being inspected today:	
Signature of practitioner being inspected:	
Date:	

# **Overall Equipment and Facility**

Comments
Recommendations/Remediation

#### Part II

# **Simulated Emergencies**

The inspectors and the sedation team should not just talk about emergency situations and how they should be managed. The practitioner being inspected and their team should demonstrate their methods for managing the following situations:

YES/NO – Laryngospasm

YES/NO – Bronchospasm

YES/NO – Emesis and aspiration

YES/NO – Airway obstruction

YES/NO – Angina/Acute Myocardial Infarction

YES/NO – Cardiopulmonary resuscitation (CPR)-(ACLS/PALS PROTOCOLS)

- o Bradycardia
- o Ventricular tachycardia (VT) Ventricular fibrillation (VF) Asystole
- o Pulseless electrical activity (PEA)

YES/NO – Hypotension

YES/NO – Hypertension

YES/NO – Venipuncture Complications

YES/NO – Neurocardiogenic (Vasovagal) Syncope

YES/NO – Allergic reaction

YES/NO – Local Anesthetic Toxicity

YES/NO – Hyperventilation syndrome

YES/NO – Seizure

An exact simulation of the emergency situation should be demonstrated in the surgery area, with full participation of the office staff. The "patient" should be positioned and draped, and all the equipment (such as mouth prop, the anesthetic machine, and the suction apparatus) that may be used should be demonstrated. A

simulated IV line should be taped into position, and all emergency equipment should be present, including syringes and medications.

# Protocols for Inspection of Simulated Emergencies Simulated Emergencies and their Algorithms

#### Respiratory

#### Laryngospasm

- YES/NO Administer 100% oxygen via nasal mask.
- YES/NO Suction the oropharynx, hypo-pharynx, and nasopharynx with a tonsil suction tip.
- YES/NO Suction/remove all blood, saliva, and foreign material from the oral cavity.
- YES/NO Pack the surgical site to prevent bleeding into the hypo-pharynx.
- YES/NO Draw the tongue and/or mandible forward.
- YES/NO Depress the patient's chest while listening with the ear close to the patient's mouth for a rush of air. If a clear "huff" of air is heard, the airway is patent and the spasm probably is resolved

If a clear "huff" is not heard:

YES/NO – Try to break the spasm mechanically by attempting to ventilate the patient with a full face mask and 100% oxygen.

#### Bronchospasm

Awake patient:

- YES/NO Administer 4-8 puffs of a beta-agonist inhalant either via inhaler or nebulizer (2-4 puffs for pediatric patient).
- YES/NO Administer supplemental oxygen via face mask.

Obtunded non-intubated patient:

- YES/NO Consider albuterol nebulizer via face mask prior to administration of epinephrine.
- YES/NO Administer 0.3 to 0.5 mg epinephrine (1:1,000 solution) intramuscularly.

If hypotension is present and believed to be a sign of acute anaphylaxis:

YES/NO – Administer intravenous bolus dose of 10-20 mcg (0.1-0.2mg) of a 1:10,000 solution of epinephrine titrated to response.

#### Intubated patient/LMA.

- YES/NO Administer 100% oxygen with positive pressure ventilation.
- YES/NO Administer 5-10 puffs of a beta agonist inhalant from an inhaler into the open end of the endotracheal tube or through a medication elbow (chamber) added to the circuit designed for inhalant medication delivery.
- YES/NO Check breathing circuit.
- YES/NO If persistent, consider epinephrine as above for non-intubated patient.

Hypoxemia in spontaneously breathing patient:

YES/NO – Administer 100% oxygen by face mask.

YES/NO – Consider reversal of sedative medications.

YES/NO – Perform chest auscultation and treat findings.

### **Emesis and Aspiration**

- YES/NO Place the patient in the Trendelenburg position with the head down at least 15 degrees and rolled onto the right side.
- YES/NO Clear any vomitus in the oropharynx with finger sweeps and large-bore suction.
- YES/NO If no improvement, place the patient in the supine position and use an/LMA

- YES/NO Remove any solid particles in the laryngeal region before LMA use.
- YES/NO Oxygenate the patient as soon as possible and manage any bronchospasm as previously described.
- YES/NO Tracheobronchial lavage is not performed except for small volumes (5-10 mL) of saline to facilitate suctioning.
- YES/NO Maintain a patient airway and continue ventilation with 100% oxygen in route to hospital.

#### **Difficult Airway Algorithm**

- YES/NO Chin lift/jaw thrust.
- YES/NO Pull tongue forward, reposition airway.
- YES/NO Full face mask positive pressure ventilation.
- YES/NO Consider nasal/oral pharyngeal airways.
- YES/NO Consider Laryngeal Mask Airway (LMA) or other adjunct airway devices.

#### Cardiovascular

## **Angina/Acute Myocardial Infarction**

- YES/NO Terminate the surgery and all stimulation of the patient.
- YES/NO Place the patient in a comfortable position and loosen tight clothing.
- YES/NO Administer oxygen at 4 L/min via mask or nasal cannula.
- YES/NO Apply pulse oximeter and ECG monitor.
- YES/NO Obtain vital signs with automatic or standard blood pressure cuff.
- YES/NO Administer nitroglycerin sublingually or via spray every five minutes if the systolic blood pressure is greater than 90mm/Hg.
- YES/NO Establish IV access, if not already present.
- YES/NO Administer non-enteric aspirin (160-325 mg) and direct patient to chew one and swallow one, except in cases of allergy to this drug.

- YES/NO Employ the pneumonic MONA but not in that order; use ONAM because use of chewed aspirin may decrease absorption of subsequent nitroglycerin.
- YES/NO Administer morphine, 1-3 mg IV every 5 minutes to control pain if systolic blood pressure is greater than 90mm/Hg. Watch carefully so the patient does not become overly sedated or lose respiratory drive.
- YES/NO Monitor vital signs closely. Watch for hypotension, hypoxemia, bradycardia, ventricular dysrhythmias, and cardiac arrest and manage appropriately per ACLS protocols.

#### Management of Perioperative Hypotension/Hypertension

YES/NO – Treatment of hypotension/hypertension is directed toward its cause.

YES/NO – Decrease anesthetic depth if patient is under anesthesia.

YES/NO – Terminate the surgery.

YES/NO – Place the patient in the supine position with legs elevated.

YES/NO – Administer 100% oxygen.

YES/NO – Re-evaluate blood pressure, heart rate, and rhythm and dysrhythmias.

YES/NO – Administer a bolus of isotonic fluid for hypotension

#### **Venipuncture Complications**

#### Hematoma

YES/NO – Apply pressure to the venipuncture site.

#### **Extravasation**

YES/NO – Apply moist heat and elevate extremity above level of heart (for many cases this simple treatment is all that is required).

If irritating drugs have extravasated, then consider:

YES/NO – Infiltrate 1% plain lidocaine (Xylocaine) at the site, if needed for pain.

YES/NO – Administer ibuprofen and possible use of steroids and antibiotics may be necessary to prevent or lessen the sloughing.

#### **Phlebitis**

YES/NO – Apply heat to area.

YES/NO – Administer ibuprofen or other nonsteroidal drugs, steroids, and antibiotics.

YES/NO – Limit motion to alleviate symptoms.

YES/NO – Seek appropriate consultation if severe symptoms persist beyond 3-4 days.

#### **Intra-Arterial Injection**

Prevention is the best treatment No single treatment regimen has been found to be completely effective.

YES/NO – Leave needle in place.

YES/NO – Inject 10 mL 1% plain lidocaine into the artery.

YES/NO – Consider transfer patient to a hospital for further therapy and consider vascular consult.

## Neurocardiogenic (Vasovagal) Syncope

YES/NO – Place patient in reclining position with legs elevated.

YES/NO – Maintain airway.

YES/NO – Deliver 100% oxygen.

YES/NO – Support respiration if needed.

YES/NO – Take vital signs.

YES/NO – Apply cool compress to forehead.

YES/NO – Administer spirits of ammonia, if necessary.

YES/NO – Administer IV atropine 0.5 mg every 3-5 minutes up to 3 mg in the presence of bradycardia.

### **Hyperventilation Syndrome**

YES/NO – Maintain adequate oxygen levels while reducing carbon dioxide elimination.

If using oxygen delivery system with full face mask, closed circuit, and no carbon dioxide absorber:

YES/NO – Deliver oxygen at 600 mL/min.

YES/NO – Have patient breathe into the circuit until the rebreathing bag is distended.

YES/NO – Continue until episode subsides.

If using anesthesia reservoir or paper bag:

YES/NO – Have patient exhale and inhale into the paper bag 6-10 times/min.

If a non-sedated patients fails to respond:

YES/NO – Administer suitable sedative to abort the hyperventilation episode.

#### Seizures

YES/NO – Prevent injury to the uncontrolled unconscious patient.

YES/NO – Loosen clothing about the neck.

YES/NO – Place pillow under the head.

YES/NO – Place padded tongue blade between the teeth if evidence that the patient's tongue is being traumatized (do not force the teeth apart).

YES/NO – Consider checking blood sugar.

### **Local Anesthetic Toxicity**

YES/NO – Immediately discontinue any further administration of the local drug.

YES/NO – Call 911.

YES/NO – Place patient in supine position.

YES/NO – Administer oxygen.

YES/NO – Maintain airway and initiate CPR.

YES/NO - Confirm or establish IV access.

YES/NO – Administer IV diazepam 5 mg over one minute OR IV midazolam 2.5 mg over one minute titrated to effect.

YES/NO – Continue to closely monitor vital signs.

#### **Allergic Reaction**

Mild reactions usually manifest as skin reaction without other systemic signs or symptoms:

YES/NO – Identify causative agent, if time permits.

YES/NO – Remove, dilute, negate, or antagonize, if possible.

YES/NO – Administer diphenhydramine adult dose 25-50 mg PO, 10-50 mg IV at a rate generally not exceeding 25 mg/min, deep intramuscular injection of 100 mg if required (maximum daily dosage is 400 mg) OR

YES/NO – Chlorpheniramine maleate adult dose 5-20 mg, IV, IM, or SQ injection as a single dose; tablets or syrup, 4 mg every 4-6 hours.

Severe Reactions (Anaphylaxis) manifest with all signs of symptoms of allergic reaction with skin rash, watery eyes and nose, abdominal cramps, wheezing, tachycardia, and hypotension.

It is important to have a plan or algorithm to guide treatment of a severe allergic reaction and impending cardiovascular collapse.

YES/NO – Stop administration of the antigen.

Follow the ABCs

YES/NO – Maintain an airway with supplemental oxygen

YES/NO – Support respiration and breathing

YES/NO – Support circulation by providing an IV route for volume loading with crystalloid solution. In the adult patient, rapidly infuse 1 L lactated Ringer's solution. For children, administer fluid boluses of 20 mL/kg of lactated Ringer's solution or normal saline

YES/NO – Administer epinephrine

Intravenous: Use a premixed solution of 1:10,000 (1 mg of epinephrine in 10 mL).

- Adults: Titrate 0.2 mg (2 mL) to 0.5 mg (5 mL) to effect and repeat every 2-5 minutes as needed. (Use with caution in patient with cardiovascular disease).
- Children: 0.01 mg/kg.

Intramuscular or Subcutaneous: If an IV route is unavailable, the drug can be administered IM or subcutaneously using a 1:1,000 (1 mg/mL).

- Adults: 0.3 to 0.5 mg of a 1:1,000 concentration. This dose may be repeated at 10-20 minute intervals based on patient response.
- Children: 0.01 mg/kg. This does may be repeated at 10-20 minute intervals based on patient response.
- YES/NO As epinephrine administration continues, an H1-antihistamine may be administered IM or IV. Diphenhydramine (Benadryl) can be given IV in a dose of 50 mg for adults and older children. The child 6-12 years of age receives 25 mg. An H2 blocker, such as famotidine (Pepcid), can be administered to adults IV starting at 20 mg. The dose for children older than 1 year is 0.5mg/kg IV up to 40 mg per day.
- YES/NO Albuterol inhaler can be administered at 4-5 puffs as needed (2-4 puffs for pediatric patient)
- YES/NO Administer corticosteroids: The use of corticosteroids has been advocated in the past to treat asthma, edema or intense pruritus. Although these drugs act too slowly to be life-saving in an acute anaphylactic episode, they are important in combating immunologic reactions and regaining homeostasis. Because of their slow action, they are the last drugs administered in the therapeutic regimen. Options include the following:
  - Hydrocortisone sodium succinate (Solu-Cortef) at a dose of 100 mg IV given slowly over one minute
  - Dexamethasone (Decadron) at a dose of 4 to 12 mg given slowly over one minute IV or IM
  - Doses can be repeated at intervals as determined by the severity of symptoms. Because anaphylaxis is an acute process,

corticosteroid use normally can be stopped after 36 hours without adverse sequelae.

#### YES/NO – Follow-up Measures

Pharyngeal edema and upper airway obstruction can occur and persist after the administration of epinephrine. Endotracheal intubation or tracheotomy may be necessary to secure an airway. If shock continues, the patient should be placed in a slight Trendelenburg position to provide circulatory support. If the patient develops dyspnea and wheezing, a semi-reclining position may be more helpful. If a significant decrease in blood pressure persists despite appropriate volume expansion and the use of epinephrine, an adjunctive vasopressor should be considered. (See section on treatment of hypotension for management of the problem)

Seizures may occur during allergic reactions and usually are due to circulatory and/or respiratory inadequacy. If convulsions persist after corrective measures have been taken to ensure cardiorespiratory sufficiency, diazepam, 1 mL (5 mg), can be administered IV for 1 minute, with midazolam (2.5 mg over one minute) used as an alternative. It is important to wait 2 minutes for the effect before giving another dose.

After successful treatment of a severe allergic reaction, the patient should be hospitalized and observed for 24 hours, receiving prophylactic antihistamines. Anaphylactic reactions have been known to recur after the initial effects of the counteracting drugs have worn off.

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# Part III Discussion

This part of the inspection should be conducted in private with the practitioner being inspected.

# YES/NO – Completed Simulated Emergencies Comments: Recommendations/Remediation: Signatures of inspectors: Printed names of inspectors: License / Permit number of inspectors: Date:\_\_\_\_ Signature of practitioner being inspected:

Printed name of practitioner being inspected:							
Date:							

Practitioner being inspected must maintain an original or copy of this inspection for 5 years, WAC 246-817-774.