# Procedural Sedation Post-Test Surgery-Gastroenterology Grand Rounds <u>April 29, 2009</u>

# (1) Opioids

- (a) are the "gold standard" for analgesia.
- (b) have no clinically significant effect on respiratory drive.
- (c) demonstrate modest antiemetic effects.
- (d) have no known pharmacologic antagonists.
- (e) none of the above.
- (2) History and physical findings suggestive of potential airway management difficulties include:
  - (a) history of snoring and daytime somnolence.
  - (b) short, thick neck.
  - (c) large tongue.
  - (d) only hard palate visible with maximal mouth opening and tongue protrusion.
  - (e) all of the above.

## (3) With regards to propofol:

- (a) its short duration of action results from efficient hepatic metabolism.
- (b) can precipitate nausea and vomiting from central chemoreceptor trigger zone stimulation.
- (c) pain on injection and bacterial contamination can occur due to the composition of its vehicle.
- (d) has potent analgesic and amnestic properties.
- (e) none of the above.

## (4) A patient receiving moderate sedation:

- (a) responds appropriately when asked to open their eyes or squeeze your hand.
- (b) maintains native, unobstructed airway patency.
- (c) has a clinically acceptable spontaneous respiratory pattern.
- (d) maintains blood pressure and pulse measurements in an appropriate range around the patient's baseline measurements.
- (e) all of the above.

### (5) Benzodiazepines:

- (a) are the only pharmacologic agents whose mechanism of action is mediated via the GABA A receptor.
- (b) have analyseic properties comparable to opioids.
- (c) all have anxiolytic, sedative, amnestic, and anticonvulsant properties.
- (d) adverse side effects are rapidly reversed by IV naloxone administration.
- (e) none of the above.
- (6) Which of the following is true regarding intraprocedural patient monitoring during

#### moderate sedation?

- (a) frequent assessments of mental status must be avoided to minimize patient movement.
- (b) pulse oximetry is a sensitive monitor for detection of hypoventilation and apnea.
- (c) continuous monitoring of the patient's clinical condition is not required as long as the vital signs are acceptable.
- (d) expired CO<sub>2</sub> detection by nasal capnography confirms some degree of airway patency, pulmonary blood flow, and alveolar ventilation.
- (e) none of the above.

## (7) Fentanyl:

- (a) is approximately 100 times more potent than morphine.
- (b) has a rapid onset of action and peak effect after IV administration.
- (c) rarely causes skeletal muscle rigidity potentially interfering with ventilation.
- (d) has a short duration of clinical analgesic efficacy (30-60 minutes).
- (e) all of the above.
- (8) The licensed independent practitioner (LIP) performing moderate sedation:
  - (a) is not responsible for the choice, dose(s), or dosing intervals of sedating drugs.
  - (b) has no role in the function/performance of the nursing provider monitoring the patient during the procedure.
  - (c) must demonstrate competency-based qualifications for evaluating/selecting patients to receive moderate sedation as well as rescuing patients who suffer sedation-related complications.
  - (d) can also utilize the patient's monitoring provider as their primary assistant during procedure performance.
  - (e) none of the above.
- (9) Which of the following is generally true regarding the water-soluble → lipid-soluble continuum within a given sedative-analgesic drug class?
  - (a) the more lipid-soluble agents have a more rapid onset of action.
  - (b) the more water-soluble agents have a shorter clinical duration of action.
  - (c) water-soluble alternatives are more potent than lipid-soluble alternatives.
  - (d) lipid-soluble agent's clinical duration of action primarily depends upon their hepatorenal metabolism and excretion.
  - (e) none of the above.

#### (10) Midazolam

- (a) does not cause venoirritation on IV administration.
- (b) has a rapid onset of action and peak effect.
- (c) causes short-term anterograde amnesia.
- (d) has no analgesic properties
- (e) all of the above.
- (11) Which of the following is an appropriate fasting period prior to performing an

elective procedure utilizing procedural sedation?

- (a) 4 hours for nonhuman milk
- (b) 6 hours for a normal meal.
- (c) 6 hours for breast milk.
- (d) 2 hours for clear liquids.
- (e) none of the above.

## (12) True statements about naloxone include:

- (a) reverses respiratory depression, but not analgesia from opioid administration.
- (b) potential resedation may occur when administered to reverse opioids with a long duration of clinical action.
- (c) has a slow onset of action (> 5 minutes) after IV administration.
- (d) will not precipitate withdrawal symptoms in opioid-dependent patients.
- (e) all of the above.