Acetaminophen Self Study Quiz (answers follow quiz)

From Blackwell’s Five-Minute Veterinary Consult Clinical Companion: Small Animal Toxicology

Choose only one answer per question

1. In the toxic response to acetaminophen, vomiting, diarrhea and neurological signs result from:
   a. Renal tubular necrosis
   b. Hemolytic anemia
   c. Hepatotoxicity
   d. Methemoglobinemia

2. The ________ species is considered most highly susceptible to acetaminophen toxicosis compared to other animals.
   a. Bovine
   b. Dog
   c. Feline
   d. Lapine
   e. Porcine

3. Which of the following is least likely in as a result of acetaminophen poisoning in cats?
   a. Azotemia
   b. Elevated serum ALT
   c. Heinz body formation
   d. Increased serum urea nitrogen
   e. Methemoglobinemia

4. Most likely historical scenario for acetaminophen poisoning in a cat
   a. Acute hemoglobinuria within 24 hours post administration
   b. Dyspnea, weakness, disorientation, bradycardia and pink mucous membranes
   c. Lethargy, vomiting, diarrhea, head pressing, icterus 2-3 days post exposure
   d. Tan-brown mucous membranes, facial edema, hemolytic anemia, 24 – 36 hrs post exposure

5. Plausible differential diagnosis in an acetaminophen poisoned cat
   a. Aflatoxicosis
   b. Ethylene glycol toxicosis
   c. Nitrite poisoning
   d. Vitamin K antagonist toxicosis

6. Multiple doses of activated charcoal are justified in acetaminophen toxicosis.
   a. True
   b. False

7. The role of the parenteral antidote available for acetaminophen is to:
   a. Bind with the acetaminophen before it is metabolized to NAPQI
   b. Bind the acetaminophen active liver metabolite to reduce its impact on cells
c. Provide glutathione to reduce the impact of the toxic metabolite formed in the liver
d. Restore liver function and use free-radicals to inhibit further metabolism

8. The antidote ___________________ is given ________
   a. Acetaminophen is given PO or IV
   b. Ascorbic acid is given PO only
   c. N-acetyl cysteine is given PO only
   d. N-acetyl cysteine is given PO or IV
   e. SAMe is given either IV or PO

9. Supportive drug therapy includes all but which of the following?
   a. Activated charcoal, only if withheld at least 2 hours before N-acetyl cysteine use
   b. Cimetidine given PO to reduce metabolism of acetaminophen to toxic intermediates
   c. Oxyglobin IV as an alternative to packed RBCs
   d. Vitamin K SQ or PO if coagulopathy due to liver failure is evident

10. Acetaminophen is appropriate for cats if the recommended canine therapeutic dosage is cut in half and given with food.
   a. True
   b. False

Answers:
   1) c. Hepatotoxicity
   2) c. Feline
   3) b. Elevated serum ALT
   4) d. Tan-brown mucous membranes, facial edema, hemolytic anemia, 24 – 36 hrs post exposure
   5) c. Nitrite poisoning
   6) a. True
   7) b. Bind the acetaminophen active liver metabolite to reduce its impact on cells
   8) d. N-acetyl cysteine is given PO or IV
   9) a. Activated charcoal, only if withheld at least 2 hours before N-acetyl cysteine use
   10) b. False