



Welcome to the World of Veterinary Medicine!

Here at the Calgary Humane Society, we have a team of Animal Health staff that work together to provide medical care, both simple and complex, to 4000-5000 animals every year!

Our Animal Health Staff are made up of:

- I. Veterinarians
- II. Registered Veterinary Technicians
- III. Animal Health Assistants
- IV. Animal Health Volunteers

In the following activities, you step into the world of our Animal Health Team and complete some activities that pertain to different aspects of working in veterinary medicine.





Part One: The Sanitation Situation

In an animal shelter, we have to be very careful not to spread germs in between our animal populations. We see many bacteria, viruses, and other pathogens that can be spread between animals, and from animals to humans too.

Some ways we prevent the spread of disease in shelter are...

- Recommending, wearing, and properly disposing of PPE (personal protective equipment)
- Using different forms of signage to communicate when people should and should not interact with an animal
- Having separate isolation wards for sick animals while they recover

Either individually or in groups, read the scenarios below and recommend the best course of action to keep everyone (both animals and humans) healthy and safe.

Be sure to include why you recommend that course of action!

Scenario #1: As Carrie is cleaning the surgery room, she notices a pack of sterilized instruments has been opened, but not used. What should Carrie do with the pack?

Scenario #2: A dog suspected to have kennel cough is brought into the shelter. What precautions should be taken to ensure that this dog does not infect other dogs or humans?

Scenario #3: You are asked to mop the surgery room floor after all the surgeries have been done. When you go to do this, you are unable to find the surgery room mop. You know there is a mop in the dog kennels that isn't being used right now. Should you use this mop?



Part Two: Zoonotic Disease Research

A zoonosis (or zoonotic disease) is an infectious disease that is transmitted between species from animals to humans, or humans to animals!

Some common zoonotic diseases are...

- Rabies
- Cat Scratch Disease (CSD)
- Valley Fever
- Trichinosis
- Salmonella

Using the internet, do some research on one of the above zoonotic diseases and answer the following questions:

1. Is this disease a virus, bacteria, fungi, or parasite?
2. What is the common name of this disease?
3. What is the scientific name of this disease?
4. What species of animal(s) carry this disease?
5. How do animals get sick with this disease?
6. How is this disease passed to humans?
7. What symptoms would you show if you were sick with this disease?
8. How could it harm humans if not treated?
9. What is the treatment for animals? For humans?
10. How can we prevent this disease in animals and humans?

Don't forget to cite your sources!

A good place to start your research might be:

- <https://www.health.state.mn.us/diseases/animal/zoo/index.html>
- <https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html>
- <http://www.bccdc.ca/health-info/disease-types/zoonotic-diseases>



Part Three: Medication Calculations

Some animals need to be prescribed medication to help them with various health or behavioural issues while they stay in shelter or foster.

In the following problems, you will have to do some math to determine the right dose of medication for each patient (animal) to take.

Problem #1: Max is a 100lb. Dalmatian that was surrendered to the Calgary Humane Society. Our veterinarians have instructed you to dispense Tetracycline capsules (250 mg) at a dosage of 5 mg/lb to be given 3 times a day (TID) for 5 days.

1. How many milligrams does Max need for his body weight? (Multiply Max's weight by the dosage).
2. How many capsules are needed for one treatment? (Divide the answer from step 1 by the mg of medication in each capsule)
3. How many capsules are needed to complete one day of Max's total treatment? (Multiply the answer from step 2 by the number of treatments per day)
4. How many capsules are needed to complete the full 5-day treatment recommended by our vet? (Multiply the answer from step 3 by the number of days Max has to take the medication)
5. BONUS: Max does not like taking his medication. How could you make it more enticing or a more positive experience for him to take his medication?



Problem #2: Lilah is a 10 lb Siamese cat that was seized by Peace Officers for medical neglect. Upon doing a complete health exam, our veterinarians have instructed you to dispense metaclopramide liquid (30 mg) at a dosage of 3 mg/lb, twice a day for three days.

*Note: 1mL of metaclopramide is equal to 30mg

1. How many milligrams is needed for Karley's body weight?
2. How many mL is equal to the number of mg needed for one dose?
3. How many mL is needed for the whole treatment?
4. BONUS: How do you think this medication should be administered?

Medication Calculation Answers

Problem #1:

1. 500mg
2. 2 capsules for one treatment
3. 6 capsules per day
4. 30 capsules for the complete treatment
5. If Max does not have any allergies, you could put the medication in a treat or some other high value food, like peanut butter or Cheez Whiz!

Problem 2:

1. 30 mg
2. 1 mL is equal to the # of mg needed for one dose
3. 6mL is needed for the whole treatment
4. The medication should be administered using a medication syringe, and should be given orally