

Reading Medication Labels

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Goal (learning objective)

Youth will learn how to better understand a medication label and calculate proper dosages to administer to different animals.

Supplies

- Handout 1 “Medication Label Worksheet” - make enough copies for group
- Handout 2 “Medication Insert” - make enough copies for group
- Handout 3 “Medication Label Worksheet Answer Key” - make one copy
- Pens or Pencils enough for group

Pre-lesson preparation

- Make copies of the Handout 1 and Handout 2 for group
- Make one copy of Handout 3, for leader use (answer key)

Lesson directions and outline

Ask the youth to share any experiences they have had reading medication labels on medications they needed to give their animal.

Share the following information with the youth:

Reading labels on medications you give to your animals is important to ensure the health and well-being of your animal. The medication label provides information on how to properly administer, store, and calculate the dose of the medication. Labels also share information on how to ensure no residues are left in your animal and what types of animals the medication may not be suitable for.

Conducting the activity (DO)

1. Ask for a volunteer to distribute Handout 1 and 2 to the group.
2. Have youth complete Handout 1 on their own.
3. Once everyone has finished, go through the answers with them from the answer key (Handout 3).

What did we learn? (REFLECT)

- Ask: Why is it important to read the medication label first, before administering medication to your animal?
- Ask: What do you consider the most important part of the medication label? Why?

Why is that important? (APPLY)

- Ask: Are there any other people you can think of that may need to read the label of a drug before administering it?
- Ask: What could happen if you didn't read the label of a medication before using or administering it to your animal?
- Ask: What could happen if you didn't read the label of a medicine the doctor prescribed for you to take?

Resources

- Ohio State University Extension. (2011). Caring for Animals. *Beef resource handbook* (pages 12-7 through 12-14).
- Ohio State University Extension. (2008). Caring for Animals. *Goat resource handbook* (pages 160-170).
- Ohio State University Extension. (2011). Caring for Animals. *Sheep resource handbook for market and breeding projects* (pages 136-146).
- Ohio State University Extension. (2000). Caring for Animals. *Swine resource handbook for market and breeding projects* (pages 24-2 through 24-13).
- Pratt, P., Leech, R., Thompson, J., Blevins, P., Gregg, C., Stogdale, E., McAndrew, H. (2015). *Good production practices: reading a medication label*. Publication APSC-100P. Virginia Cooperative Extension. Retrieved from <https://www.pubs.ext.vt.edu/APSC/APSC-100/APSC-100-PDF.pdf>.

HEALTH AND DISEASES: READING MEDICATIONS (L2) – HANDOUT 1

Medication Label Worksheet

Using the medication label and insert below answer the following questions.

1. What is the name of this medication? _____
2. How should this medication be administered? _____
3. Looking at the temperature this medication should be stored at, where should it be stored

4. List two cautions you should remember when administering this medication.

5. What is the withdrawal time on this medication, for cattle? _____ for swine? _____
6. What is the dosage for a swine weighing 300 lbs? _____
7. Can the entire dosage from question 6 be administered to the same injection site? _____



DOSAGE AND ADMINISTRATION:

Cattle:

Single-Dose Therapy (BRD Treatment): Administer, by subcutaneous injection, a single dose of 7.5-12.5 mg/kg of body weight (3.4-5.7 mL/100 lb).

Multiple-Day Therapy (BRD Treatment): Administer daily, a subcutaneous dose of 2.5-5 mg/kg of body weight (1.1-2.3 mL/100 lb). Treatment should be repeated at 24-hour intervals for three days. Additional treatments may be given on Days 4 and 5 to animals that have shown clinical improvement but not total recovery.

Single-Dose Therapy (BRD Control): Administer, by subcutaneous injection, a single dose of 7.5 mg/kg of body weight (3.4 mL/100 lb). See insert for examples of conditions that contribute to high risk.

Administered dose volume should not exceed 20 mL per injection site.

Swine:

Administer, either by intramuscular or subcutaneous (behind the ear) injection, a single dose of 7.5 mg/kg of body weight (3.4 mL/100 lb). Administered dose volume should not exceed 5 mL per injection site. For the control of colibacillosis, administration should be initiated within the first 60 days post-weaning when clinical signs are present in at least 2% of the animals in the group. See package insert for full dosage and administration information.

INDICATIONS:

Cattle: Baytril® 100 is indicated in beef and non-lactating dairy cattle for:

Single-Dose Therapy: the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, *Histophilus somni* and *Mycoplasma bovis* in beef and non-lactating dairy cattle; and for the control of BRD in beef and non-lactating dairy cattle at high risk of developing BRD associated with *M. haemolytica*, *P. multocida*, *H. somni* and *M. bovis*.

Multiple-Day Therapy: the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida* and *Histophilus somni* in beef and non-lactating dairy cattle.

Swine: Baytril® 100 is indicated for:

The treatment and control of swine respiratory disease (SRD) associated with *Actinobacillus pleuropneumoniae*, *Pasteurella multocida*, *Haemophilus parasuis*, *Streptococcus suis*, *Bordetella bronchiseptica* and *Mycoplasma hyopneumoniae*. The control of colibacillosis in groups or pens of weaned pigs where colibacillosis associated with *Escherichia coli* has been diagnosed.

CONTAINS PER mL: Enrofloxacin 100 mg. Excipients: L-arginine base 200 mg, n-butyl alcohol 30 mg, benzyl alcohol (as a preservative) 20 mg and water for injection q.s.

RESIDUE WARNINGS:

Cattle: Animals intended for human consumption must not be slaughtered within 28 days from the last treatment. This product is not approved for female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

Swine: Animals intended for human consumption must not be slaughtered within 5 days of receiving a single injection dose.

HUMAN WARNINGS: Not for use in humans. Keep out of reach of children. See package insert.

For customer service or to obtain product information, including a Safety Data Sheet, call 1-800-633-3796.

For medical emergencies or to report adverse reactions, call 1-800-422-9874.

STORAGE CONDITIONS: Protect from direct sunlight. Do not refrigerate or freeze. Store at 20-30°C (68-86°F), excursions permitted up to 40°C (104°F). Precipitation may occur due to cold temperature. To redissolve, warm and then shake the vial.

Read package insert carefully for complete details.

Commercial products are named in this publication for informational purposes only. University of Idaho Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.

HEALTH AND DISEASES: READING MEDICATIONS (L2) – HANDOUT 2

Medication Insert

Name of Drug		OMNIBIOTIC	Active Ingredients										
		(Hydrocillin in Aqueous Suspension)											
Approved Uses		For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep	Species and Animal Class										
		Read Entire Brochure Carefully Before Using This Product											
		For Intramuscular Use Only											
Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.													
Indications: Cattle - bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections; Swine - erysipelas, pneumonia; Sheep - foot rot, pneumonia, mastitis; and other infections in these species caused by or associated with hydrocillin-susceptible organisms.													
Recommended Daily Dosage The usual dose is 2 ml per 100 lb of body weight given once daily. Maximum dose is 15 ml/day.													
Dosage		<table border="1"> <thead> <tr> <th>Body Weight</th> <th>Dosage</th> </tr> </thead> <tbody> <tr> <td>100 lb</td> <td>2 ml</td> </tr> <tr> <td>300 lb</td> <td>6 ml</td> </tr> <tr> <td>500 lb</td> <td>10 ml</td> </tr> <tr> <td>750 lb or more</td> <td>15 ml</td> </tr> </tbody> </table>	Body Weight	Dosage	100 lb	2 ml	300 lb	6 ml	500 lb	10 ml	750 lb or more	15 ml	
Body Weight	Dosage												
100 lb	2 ml												
300 lb	6 ml												
500 lb	10 ml												
750 lb or more	15 ml												
Continue treatment for 1 to 2 days after symptoms disappear.													
Cautions and Warnings		Caution: 1. Omnibiotic should be injected deep within the fleshy muscle of the neck or thigh. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. 2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3. Treated animals should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines. 4. Omnibiotic must be stored between 2° and 8° C (36° to 46° F). Warm to room temperature and shake well before using. Keep refrigerated when not in use.	Route of Administration										
Sizes Available		Warning: Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.	Storage Requirements										
		How Supplied: Omnibiotic is available in vials of 100 ml.	Withholding Times										
			 <p>TAKE TIME OBSERVE LABEL DIRECTIONS</p>										

HEALTH AND DISEASES: READING MEDICATIONS (L2) – HANDOUT 3

Medication Label Worksheet Answer Key:

1. Baytril 100
2. Subcutaneous injection for cattle and either subcutaneous or intramuscular for swine
3. Should be stored in a cool dark room with no access to direct sunlight.
4. a) this medication is not approved for female dairy cattle 20 months or older. b) do not use in calves to be processed as veal
5. a) 28 days. b) 5 days.
6. 10.2 ml
7. No (it must be given in 3 different injection sites)