EMPLOYEE TRAINING MANUAL

A guide that veterinarians can use to help:

- Dairy farmers prevent drug residues and earn more money
- Farm managers educate employees
- Dairy workers do their jobs better
- Consumers enjoy safer and better milk

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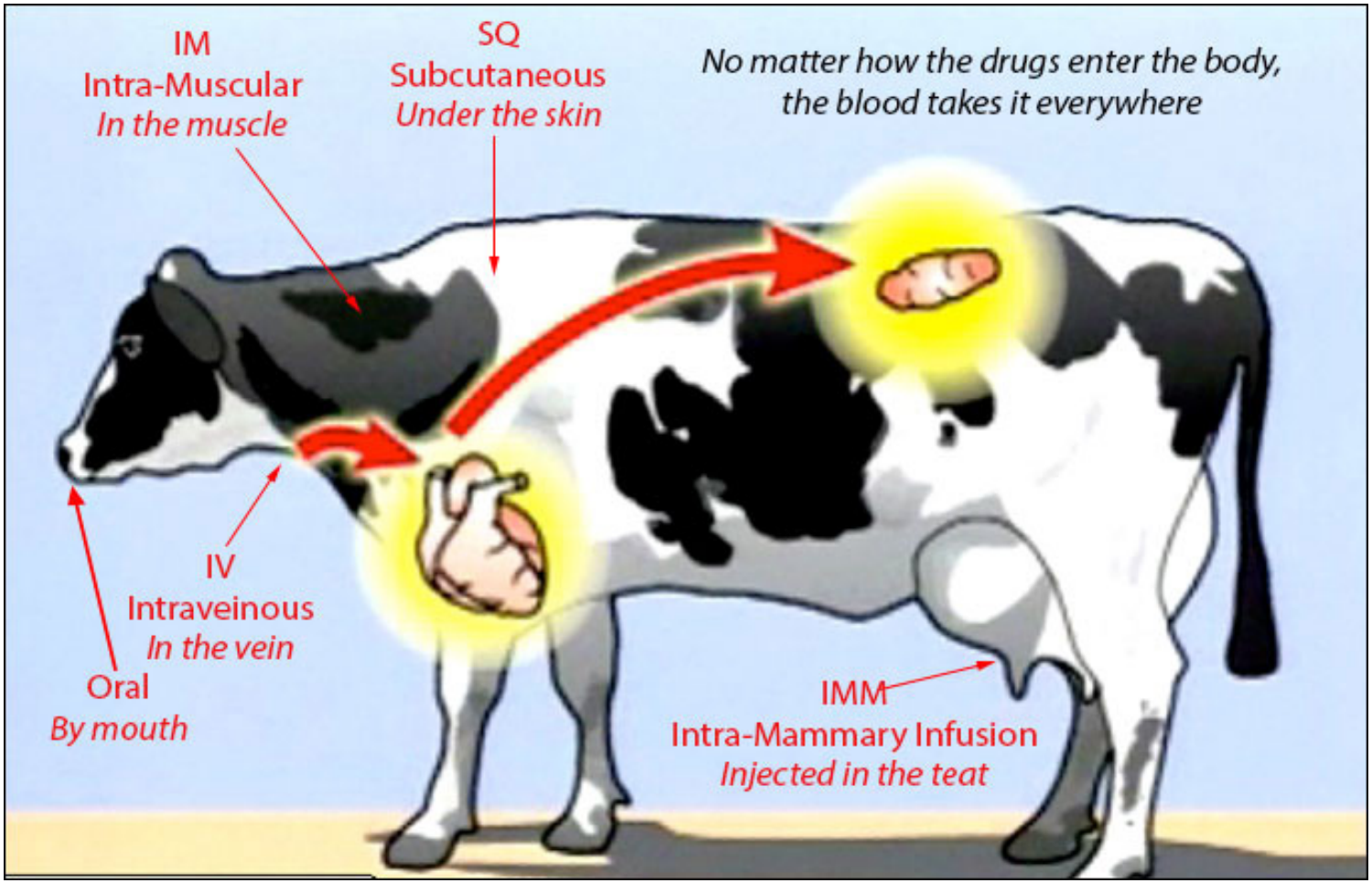
STOP DRUG RESIDUES

in the milk and meat of dairy cows

TO STOP DRUG RESIDUES:

Milk and meat from dairy cows treated with drugs must not be sent to market until drug residues have left the animal's body. This requires that everyone on the farm understands what to do and how to do it.

No matter how drugs enter the body, they will be distributed everywhere



Understanding Drug
Withdrawal Times

The Withdrawal Time is the amount of time AFTER you finish treating the cow with drugs that it takes for the drug to exit the cow's body to a level below the maximum residue allowed.

Withdrawal Times depend on:

- The kind of drug used (the category and the name)
- How much was used (the dose)
- How the drug was given (IV, IM, etc.)
- How often the drug was given (how many times a day)
- How long the drug was given (how many days)
- The age of the cow
- The health of the cow

Before you give any drug to a cow, make sure you know the Withdrawal Times for both the milk and the meat since those times are usually different

STOP Drug Residues

To make sure that there are no drug residues:

- DO NOT send milk to market . . .
- DO NOT load cows on truck for culling . . .

  . . . until AFTER the withdrawal time for the last dose of the drug

DRUG RESIDUES IN MILK OR MEAT CAN CAUSE SERIOUS ILLNESS IN PEOPLE:

- Allergic reactions (possibly fatal)
- Toxicities (poisoning)
- Anemia
- Infection from bacteria that are resistant to antibiotics

10 Steps to STOP Drug Residues

1. **Examine & ID** - *Conduct a physical exam of the cow and identify her symptoms. Also make sure she is adequately identified.*

2. **Diagnose & Mark** - *Make a diagnosis and then mark the animal with a leg band or other marking that will be clearly understood and recognizable.*

3. **Segregate & Review** - *Move cow(s) to hospital pen or parlor (if available) and review records of previous treatments.*

4. **Review Protocols** - *Read over the Treatment Protocols developed with your herd veterinarian. If there are no protocols yet, schedule an appointment with your veterinarian to create and review them.*

5. **Treat** - *Treat the animal as stated in the Treatment Protocol, whether that is with supportive therapy or antimicrobial therapy.*

6. **Record the Treatment** - *Immediately after you treat the animal, make sure to complete the treatment log or record.*

7. **Complete the Protocol** - *Continue treatments as specified for the entire duration and record information on all treatments.*

8. **Wait, then Return** - *Return milk cows to the milking group only after waiting the entire withdrawal time.*

9. **Check the Records** - *Check treatment records and withdrawal dates for every animal before it leaves the herd to ensure that proper withdrawal periods were strictly followed before marketing.*

10. **Log** - *Log the date of removal from the herd and the buyer/consignee for every animal leaving the herd.*

STEP 1 - Examine & ID

- Have the herd veterarinarian train you in how to do a basic physical exam

- Do a complete exam that checks for:
  - Mastitis
  - Cud chewing (ruminations)
  - Temperature
  - Attitude (depressed or alert)
  - Dehydration (skin tenting)
  - Respiration (rate/labored)
  - Consistency of manure
  - Gait (lame or uncoordinated)
  - Ketosis (urine stick)
  - Discharge from the uterus

- Make sure the animal (cow, heifer, calf) has two ear tags. If one or more is missing, make sure to put a replacement tag in each ear before treatment

STEP 2 - Diagnose & Mark - Make a Diagnosis and Place a Leg Band on the Cow (or Use an Alternative Such as Paint)

- This must be done BEFORE any treatment is done
- THIS INCLUDES DRY COW THERAPY

STEP 3 - Segregate & Review - For Milking Cows - Move to the Hospital Pen and Parlor (If Available) and Review Records of Previous Treatments

- Remember that when it comes to drug use, milking cows and dry cows are BOTH considered lactating animals. So if a drug says on its label that it cannot be used on lactating animals, the drug MUST NOT BE GIVEN TO MILKING OR DRY COWS
- Take care in moving sick cattle to reduce stress or injury
- Review the cow's (or calf or heifer's) individual record for any previous treatment
  - This will reduce treatment of cows that are not likely to respond (chronic)
  - Identify cows that may still be on withdrawal periods from previous drug treatments

Step 4 - Review Protocols - Review the Treatment Protocol from the Herd Veterinarian

- Each type of illness should have a specific Treatment Protocol prescribed by the herd veterinarian
- This Treatment Protocol should be available in the treatment area or pharmacy at all times

Cows R Queen Dairy Farm

Mastitis Therapy Protocol

Check temperature

Mild mastitis – abnormal milk, temp < 103, cow bright, alert, eating, quarter pliable

- Treat quarter with Spectramast, 1 tube per quarter according to label directions for 3 to 5 days
- Retreatment is possible after 3 days off treatment for an additional 3 to 5 days

Moderate Mastitis – Abnormal milk, temp > 103, cow dull but still eating, abnormal feed to quarter (swelling)

- Treat quarter with Spectramast, 1 tube per quarter according to label directions for 3 to 5 days
- Retreatment is possible after 3 days off treatment for an additional 3 to 5 days
- Apply udder cream topically for swelling
- Aspirin as needed
- Polyflex @ 2cc/100lb IM SID for 3 to 5 days
- **NOTE: Additional withdrawal time!!**

Severe Mastitis – abnormal milk, cow dull, weak glassy eyed, diarrhea, quarter hard, hot or flaccid, secretion watery or serum

- Treat quarter with Spectramast, 1 tube per quarter according to label directions for 3 to 5 days
- Retreatment is possible after 3 days off treatment for an additional 3 to 5 days
- Apply udder cream topically for swelling
- Aspirin as needed
- Polyflex @ 2cc/100lb IM SID for up to 7 days
- **NOTE: Additional withdrawal time!!**
- Fluids (Lactated Ringers) to treat dehydration

Revision Date: 8/9/2012
Anything older than this date should be discarded

Step 5 - Treat - Treat the Cow/Cows with the Therapy Outlined in the Treatment Protocols

- Wear gloves during all treatments
- The treatment must be done EXACTLY as stated in the Treatment Protocol, including:
  - Dose (amount of the drug)
  - How the drug is given [intravenous (IV), intramuscular (IM), subcutaneous (SQ), intramammary (IMM), oral (by mouth)]
  - Frequency of dose (how often each day)
  - Duration of therapy (how many days/doses)
- Follow the drug manufacturer's instructions for the amount of the drug to be given at each injection site
  - If no instructions are available, ask the herd veterinarian to prescribe the injection site limit. This is especially important for intramuscular (IM) and subcutaneous (SQ) injections
  - NEVER mix drugs in the same syringe
- For intramammary (IMM) tubes, it is VERY IMPORTANT to clean the teat ends with alcohol before infusion

Step 6 - Record the Treatment - Use the Daily Treatment Log and/or Enter the Information into the Computer (If Available)

- Records must include:
  - Animal identification
  - Date
  - Diagnosis (including the severity of the problem)
  - Drug used
  - Dose (mL)
  - How drug is given
  - Name of person who gave the drug
  - Withdrawal Period (one for milk and one for meat)
  - Expected date for the end of the Withdrawal Period for meat
- Update the records every day
  - If you treat the cow, you are responsible for the update

Step 7 - Complete the Protocol - And Record Information (Step 6) for Follow-Up Treatments

- Treatment logs and computer records must be kept for EVERY treatment
  - This includes follow-up treatments on consecutive days following the first treatment
  - The records for EVERY follow-up treatment must include ALL the information required in Step 6

Step 8 - Wait, then Return

- Make sure the cow is healthy before removing the leg band and returning her to the herd

Step 9 - Check the Records

- Monitor the treatment records for every animal (cows, heifers, calves) that leaves the herd to insure proper withdrawal periods were followed STRICTLY before marketing
- Have TWO people check off on the withdrawal date
- This includes bull calves

Step 10 - Log - Log the Date of Removal from the Herd and the Buyer/Consignee for Each Animal Leaving the Herd

These **10 Steps** are what everyone who works on the farm should practice to help stop drug residues in milk and meat . . .

. . . but there is one more thing

Drug Inventory on the Farm

- A drug inventory provides a tool for herd managers to stay current with drug use and potential problems
- A drug inventory must include a written list of all drugs on the farm
- The inventory will change over time depending on:
  - new purchases
  - lost drugs (for example, dropped or broken vials)
  - expired drugs
  - the number of doses used to treat animals
- Many people who treat animals and keep drug records may not be part of keeping the drug inventory
- But it is important that the people who do keep the drug inventory know where to find information on drugs that have been used to treat animals
- This is one reason why computer records of ALL drug treatments should be kept up-to-date

Never forget . . .

this is about providing safe milk and meat for real people

Certificate of Training

Name	Signature	Date	Trainer Signature

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