Proper Handling and Administration of Cattle-Health Products

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Veterinary Client Patient Relationship (VCPR)

• Assumes the vet is:
  – Familiar with the operation
  – Assumes responsibility for making medical judgements on the care and treatment of the animals
  – Has had recent and timely/medically appropriate visits to the premise
  – The owner agrees to follow directions
  – The vet is available for follow up
Quality Control of Animal Health Products

- Proper storage temperature
  - Often 35°-45°F
  - Storage temp on Label
- If Delivered, ensure proper temperature upon arrival
- Always transport with ice packs (Do not allow direct contact)

Storage Matters

- Store under proper conditions
  - When purchased
  - Prior to use
  - Chuteside
Refrigerators

• University of Nevada
  – 20 ranches, 4 feed stores
  – 25% of the refrigerators failed to maintain vaccines in the safe zone (35°-45°F)

• University of Arkansas
  – 180 refrigerators tested
  • 45 were only at proper temp range 5% of the time
  • 76% were unacceptable for storing animal health products
  • 23% <5yrs, 34% 6-10 yrs, 22% 11-15 yrs, and 21% >15 yrs old

Processing/Treatment Records

• Records Include:
  • Date
  • Animal or group
  • Product(s) utilized
  • Dose
  • Withdrawal time
Vaccines

• Protect from sunlight
• Protect from freezing
• Do not mix different vaccines together
• Mix up only what you can use in 1 hour
• Keep vaccines thoroughly mixed

Transfer Needle

Enter Diluant First

After rehydrating, gently roll. **Do not shake**
Vaccination Process

• Mark syringes for different vaccines
• Use products from original containers
• Never re-enter a bottle with a used needle
• Keep equipment clean
• DO NOT use disinfectant with MLVs
  – Can also damage Killed

Syringe Care

• Wash the outside of the syringe with hot water and brush
• Take apart the barrel of the syringe and wash the inside of the syringe with near boiling water. Do not use soap on the inside.
• Inspect rings and inside of syringe. Replace if necessary.
  – (Lubricating with silicone, mineral oil, Vaseline, or any other lubricant may inactivate or damage vaccines)
• Fill a small container with hot water.
  – (Use distilled water if hard water, or is water source is non-potable)
• Draw up hot water into the syringe.
• Squirt the water out. (Do steps 6 and 7 a total of three times)
• Put the clean syringe in a Ziploc bag and seal after it is completely dry
Needles

• Change needles
  – Immediately if the needle bends
  – Needle becomes contaminated (dirt, feces, chemicals)
  – If point is damaged or burred
  – Before needle becomes dull (10-15 hd)
  – Between cattle to limit blood-borne infections
    • Bovine Leukosis, Anaplasmosis

Injection Site Management
Proper Injection Site

Injection Triangle
A - Ahead of point of shoulder
B – Above the vertebrae
C - Below Nuchal Ligament

Locate the triangle region in front of slope of shoulder
One Hand Technique
Dewlap Injection

• Use no larger than a 5/8” needle
• Tent the skin in the dewlap region and administer a SQ injection

Proper Injection Route

• Subcutaneous (SC)
• Intramuscular (IM)
Appropriate Needle Size

<table>
<thead>
<tr>
<th>Injectable Viscosity</th>
<th>SQ (&lt;1/2 to 3/4 inch needle)</th>
<th>IV (&lt;1 to 1 1/2 inch needle)</th>
<th>IM (&lt;1 to 1 1/2 inch needle)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cattle Weight</td>
<td>Cattle Weight</td>
<td>Cattle Weight</td>
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<tr>
<td>Thin</td>
<td>&lt;300 300-700 &gt;700</td>
<td>&lt;300 300-700 &gt;700</td>
<td>&lt;300 300-700 &gt;700</td>
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<tr>
<td>Example: Saline</td>
<td>18 18-16 16</td>
<td>16-16 16-16 16-14</td>
<td>20-18 16-16 18-16</td>
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<tr>
<td>Thick</td>
<td>13-16 16-16 16</td>
<td>16 16-14 16-14</td>
<td>18 16 16</td>
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<td>Example: Oxycodone</td>
<td>gauge gauge gauge</td>
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</table>

SELECT THE NEEDLE TO FIT THE CATTLE SIZE (THE SMALLEST PRACTICAL SIZE WITHOUT BENDING)

16-18 gauge 1/2 to 3/4 inch needles for SQ
16-18 gauge 1 to 1 1/2 inch needles for IM

Injection Spacing

- 4 inches apart
  - Hand width apart
- Side-by-Side
Injection Volume

- Read product label
- Maximum – 10 mL / injection site

Implant Location

If the middle of the ear has been damaged, place implant on the top of the ear, cartilage ring.

If the tip of the ear is missing, place implant in the outer 1/2 of the remaining ear.
Implant Location

Avoid tags and previous implants

Implant Sanitation

- Clean each side of the implant needle between animals
- Use disinfectant soaked sponge
Take the time to do the job right!