

# 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



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## 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)



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## Storage Matters

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



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## 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



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## Processing/Treatment Records

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

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## 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

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## Vaccines



Transfer Needle



Enter Diluant First



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

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## 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

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## 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**

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## 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

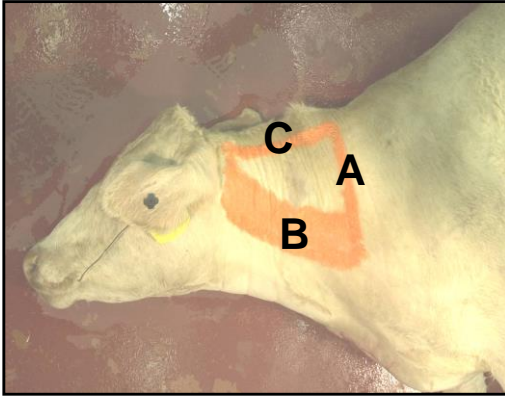
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## Injection Site Management



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## Proper Injection Site



### Injection Triangle

A - Ahead of point of shoulder

B - Above the vertebrae

C - Below Nuchal Ligament

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## Proper Injection Site



Locate the triangle region in front of slope of shoulder

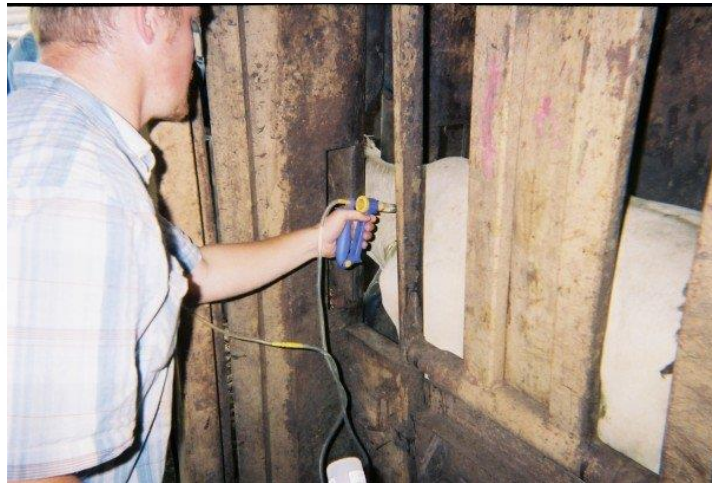
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# One Hand Technique



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## Dewlap Injection

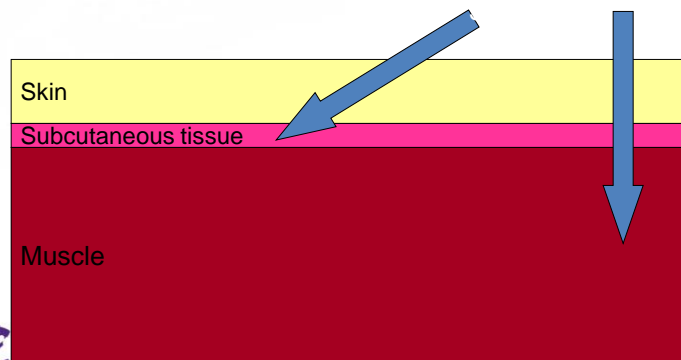


- Use no larger than a 5/8" needle
- Tent the skin in the dewlap region and administer a SQ injection

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## Proper Injection Route

- Subcutaneous (SC)
- Intramuscular (IM)



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## Appropriate Needle Size

Injectable Viscosity	Route of Administration								
	SQ (1/2 to 3/4 inch needle)			IV (1 1/2 inch needle)			IM (1 to 1 1/2 inch needle)		
	Cattle Weight			Cattle Weight			Cattle Weight		
	<300	300-700	>700	<300	300-700	>700	<300	300-700	>700
<b>Thin</b> Example: Saline	18 gauge	18-16 gauge	16 gauge	18-16 gauge	16 gauge	16-14 gauge	20-18 gauge	18-16 gauge	18-16 gauge
<b>Thick</b> Example: Oxytetracycline	18-16 gauge	18-16 gauge	16 gauge	16 gauge	16-14 gauge	16-14 gauge	18 gauge	16 gauge	16 gauge

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

**16-18 gauge ½ to ¾ inch needles for SQ  
16-18 gauge 1 to 1-1/2 inch needles for IM**

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## Injection Spacing

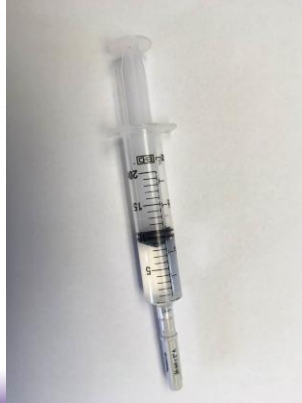
- 4 inches apart
  - Hand width apart
- Side-by-Side



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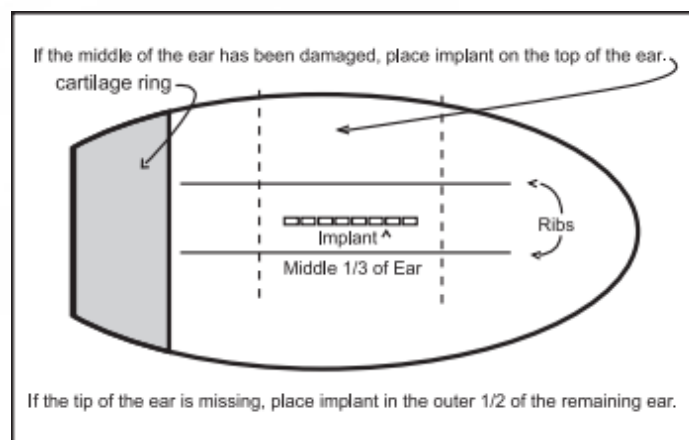
## Injection Volume

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



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## Implant Location



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## Implant Location



Avoid tags and previous implants

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## Implant Sanitation



- Clean each side of the implant needle between animals
- Use disinfectant soaked sponge

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Take the time to do the job right!



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