



**EXTENSION**

## Medication and Remote Delivery

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# Why Remote Delivery Systems?



- ADMINISTRATION OF ANIMAL HEALTH INJECTABLE WITHOUT RESTRAINT
- POPULAR IN REMOTE GRAZING SITUATIONS
- MORE CONVENIENT
- QUICKER DELIVERY
- EASIER TO MEDICATE BAD TEMPERED ANIMALS
- SAFER



# Types of Remote Delivery Systems



## POPULAR TOOLS AVAILABLE

- POLE SYRINGES
- DART DELIVERY
  - PNEUMATIC
  - CO2
  - .22 CHARGED



# Remote Delivery Systems

## BQA CONCERNS

- CONSIDER THE BEST WELFARE FOR THE ANIMAL
- PROPER INJECTION SITE
- CORRECT ROUTE OF ADMINISTRATION
- CORRECT DOSAGE
- BROKEN NEEDLES OR COMPLETE DARTS IN MUSCLE/CARCASS



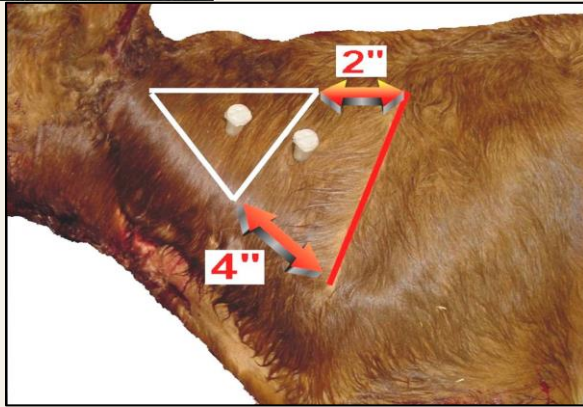
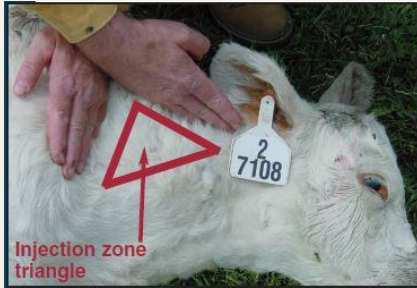
# Best Welfare for the Animal



## CONSIDERATIONS:

- WHAT IS THE DIAGNOSIS?
- WHAT IS THE BEST FOR THE ANIMAL?
- WHAT ARE YOUR RESTRAINT OPTIONS?
  - LOCATION
  - PROPER FACILITIES
  - PROPER TOOLS
- WHAT IS THE SAFEST FOR THE ANIMAL AND CAREGIVER?

# Proper Injection Site



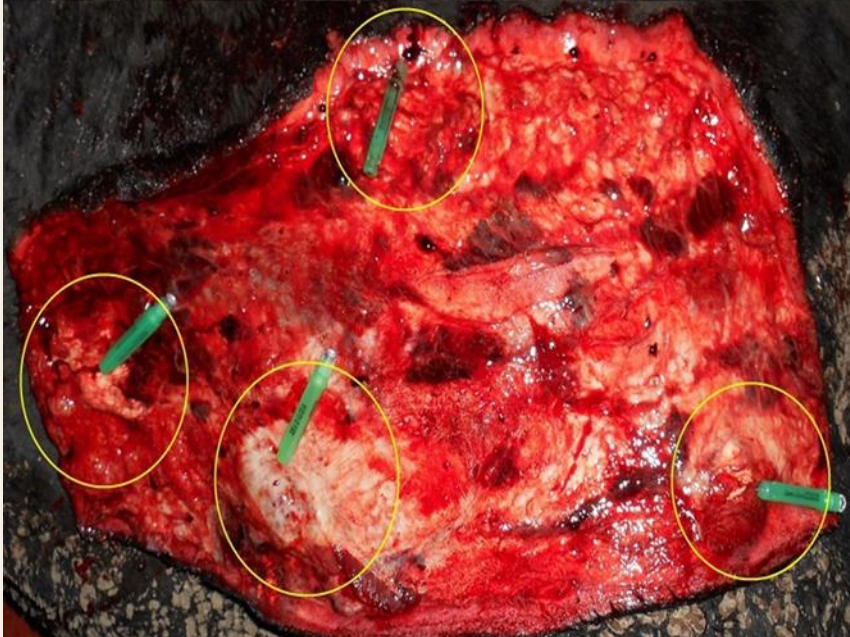
## CONSIDERATIONS:

- INJECTION SITE TRIANGLE IN THE NECK
- 10 CC PER INJECTION SITE
- MULTIPLE INJECTIONS SHOULD BE 4" APART
- CONDITIONS EFFECTING FLIGHT PATTERN



# Injection Site

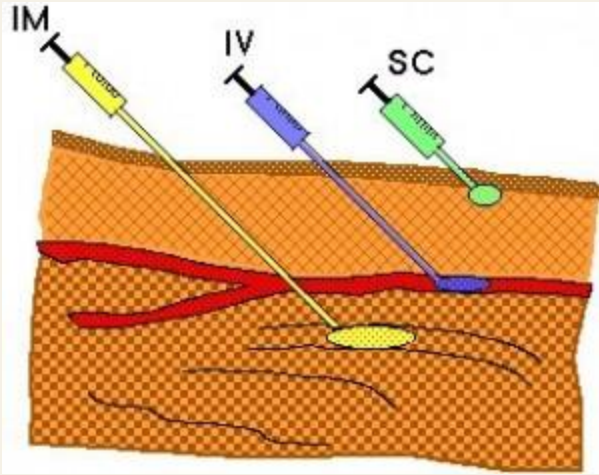
Fresh Euthanized Bull ... Targeted the top of the bulls neck  
Six U-Darts containing 10 CC PenG shot at 10 yards with a Green Charge  
Four delivered medication ... ( 3/4" Tri-Port needle )  
- Three appeared to deliver a full dose, - One didn't deliver the full dose  
- Two darts ejected themselves & flew off like a rocket spewing the PenG ( video )



## CONSIDERATIONS:

- WEATHER CONDITIONS
  - WIND
  - MOISTURE
- DISTANCE
  - 10-30 YARDS
- CORRECT CHARGE/FORCE
- WEIGHT OF PRODUCT DELIVERED

# Route of Administration



## CONSIDERATIONS:

- INTERMUSCULAR
- SUBCUTANEOUS



Injectable Viscosity	Route of Administration								
	SQ (1/2 - 3/4 inch needle)			IV ( 1 1/2 inch needle )			IM ( 1 - 1 1/2 inch needle )		
	Cattle Weight lbs.			Cattle Weight lbs.			Cattle Weight lbs.		
	<300	300-700	>700	<300	300-700	>700	<300	300-700	
<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	
<b>Thick</b> Example: Tetracycline	18-16 gauge	18-16 gauge	16 gauge	16 gauge	16-14 gauge	16-14 gauge	18 gauge	16 gauge	16
<b>SELECT THE NEEDLE TO FIT THE CATTLE SIZE (THE SMALLEST PRACTICAL SIZE WITHOUT BENDING)</b>									



# Dosage



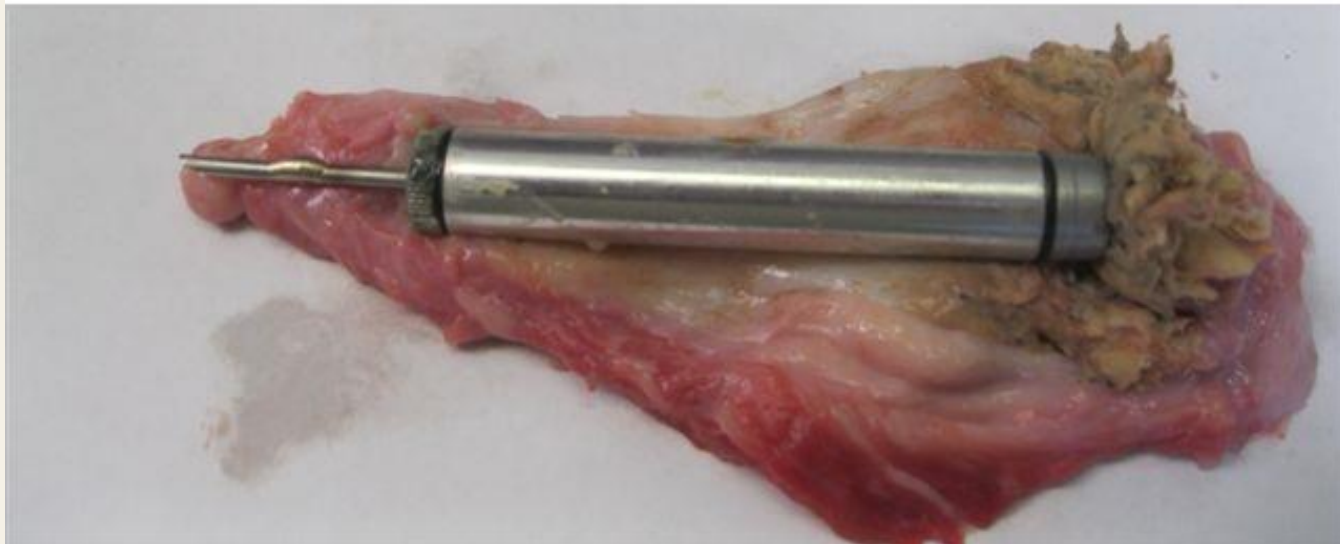
## CONSIDERATIONS:

- CORRECT WEIGHT ESTIMATION
- SIZE OF DART
  - 2-10CC
- NEEDLE SIZE
  - 14 GAUGE
  - 3/8" - 2"



# Broken Needles/Embedded Darts

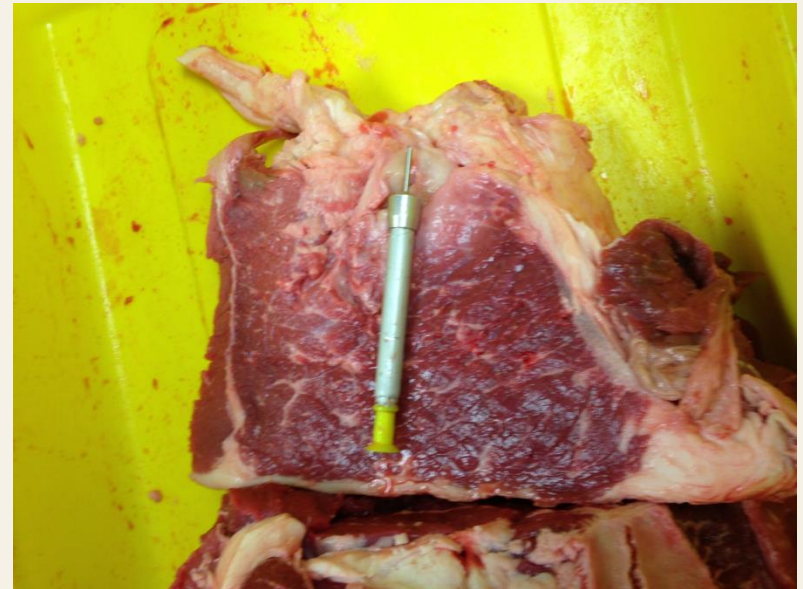
LOCATION: ROUND



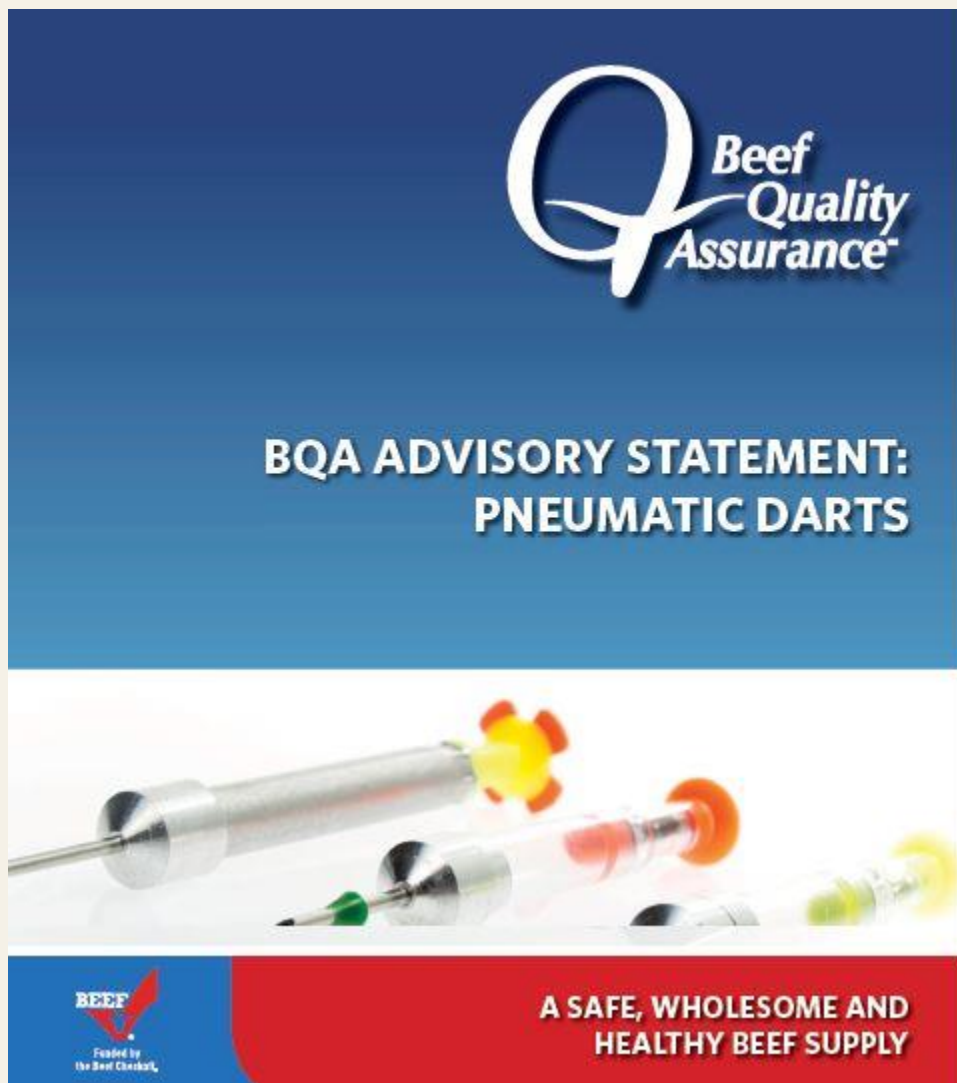
# Broken Needles/Embedded Darts



LOCATION: CHUCK



# National BQA Advisory



BQA.ORG

- RESOURCES
- MANUALS

# Questions

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