



Unit : Hypocalcemia In Cattle

Lesson : 4

# Treatment

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# Standard Treatment

- Ca- gluconate,
- Ca-borogluconate
- Ca-chloride
- Ca salt solutions providing 8 to 10 g of Ca (Ca- borogluconate is 8.3% Ca).
- 1gm/45kg bt.wt – i/v
- 500 mL of 23% Ca-borogluconate by slow IV injection
  - Cardiac auscultation
  - 10.7 g of Ca.



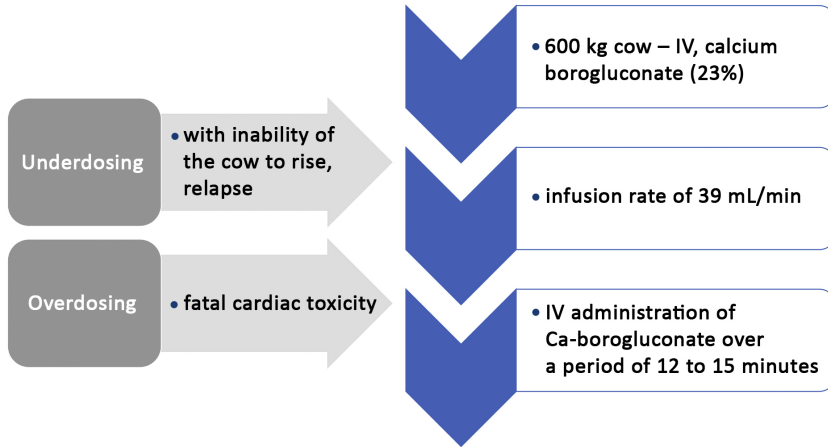


# Route of administration -IV

- IV route- preferred
  - rapid and obvious
- Heart – arrhythmia- present - SC
  - bradycardia
  - tachycardia
- Half dose -intravenously
- Half subcutaneously
  - fewer relapses

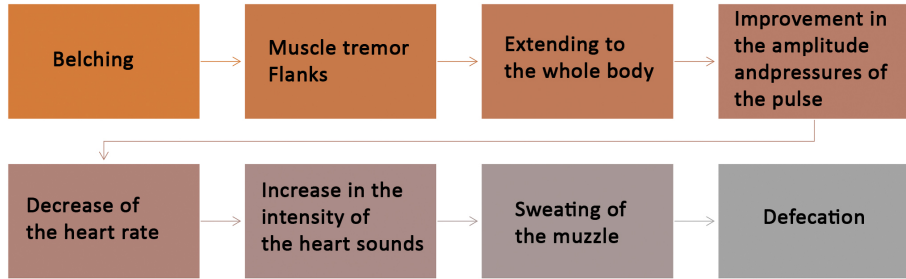


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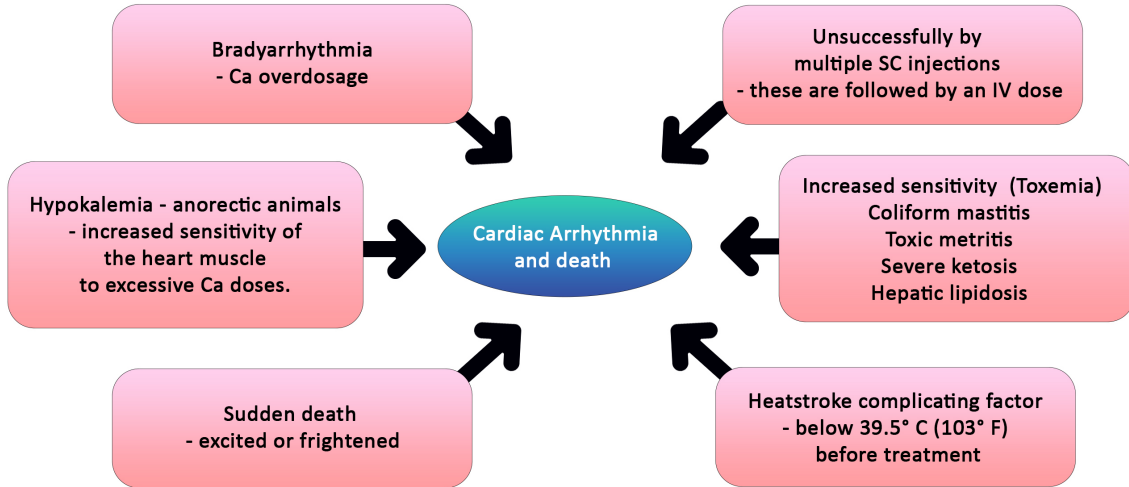




# Response to calcium



# Unfavorable response



Antitode Atropine sulphate – 0.02mg/kg bt.wt, I/V



## SC Route

- Unusual response occurs during IV administration
- Should not be used - severe hypocalcemia or dehydration  
– delayed response
- 50 to 75 mL – Caborogluconate
- For Example – Calcium cyclers

# Oral route

- Ca-chloride ( $\text{CaCl}_2$ ) and Ca-propionate
- Calcium propionate (equivalent to 50 g Ca/ cow) PO q12 for 48h
- Calcium chloride (equivalent to 50 g Ca/cow) PO q12 for 48h
- About 250 g Ca in a soluble form will kill some cows
- Oral supplementation of Ca salts for 1 to 2 days after IV use



Calcium gel



Anionic feed supplement  
for prevention of Hypocalcaemia



Electrolyte powder





# General Management And Clinical Care Procedures

- Recumbent - propped up in sternal recumbency
- If lateral recumbency- tympany, regurgitation, aspiration pneumonia
- Rolled from side to side every few hours and provided with adequate bedding or moved to a suitable nonslip ground surface
- Recumbent for more than 48 hours- cow lifters
- Good heave at the base of the tail when she is halfway up- when attempting to stand



# Failure to Respond to Treatment

- Calcium cyclers
- Prolonged recumbency - Downer cow syndrome



*Thank you*