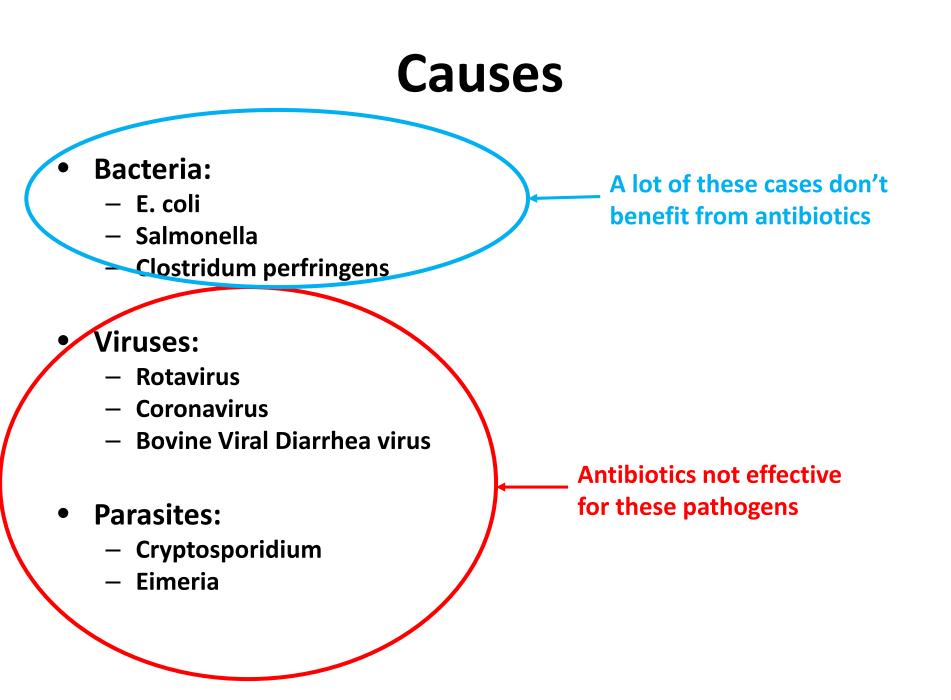
Calf Diarrhea: Treatment and Vaccination

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Overview

- What causes calf diarrhea?
- Treatment protocols
- Vaccine protocols





Treatment

- Rehydration is crucial
- Antibiotics in select cases

• Will cover oral rehydration

• KEY: Detect diarrhea before fluid loss severe

Dehydration	Demeanor	Eyeball Recession	Skin Tent Duration (s)
<5%	Normal	None	<1
6%–8% (mild)	Slightly depressed	2–4 mm	1–2
8%–10% (moderate)	Depressed	4–6 mm	2–5
> 10% (severe)	Comatose (or dead)	>6 mm	>5
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These tend not to recover with oral fluids

Which oral electrolyte?

- They are not all the same
- They need to:
 - Supply electrolytes in appropriate quantity and ratio
 - Contain acetate,
 propionate or
 bicarbonate
 - Provide energy

- Lots of products on the market
- Consult with herd veterinarian on most appropriate choice for your situation

How much to give?

- Too little = still sick
- Too much = usually urinates extra away
- Consider:
 - Degree of dehydration
 - Maintenance
 - Ongoing losses
- Include milk in your calculations

- Dehydration:
 - Body weight x % dehydrated
 - Slight depression: 6%
 dehydrated, 50kg calf = 3L
- Maintenance: 50ml/kg/day, 50kg calf = 2.5L/day
- Ongoing loss: 1-4L/day
- 50kg calf: 6-10L total oral fluids/day <u>including</u> milk replacer

What about antibiotics?

- Need to use antibiotics
 Limit to severe cases responsibly
- Otherwise they will be taken away from us
- Do not use if normal:
 - Appetite
 - Rectal temperature
 - Activity level

 Avoid oral treatment with antibiotics

- Use your herd veterinarian to develop protocol:
 - As they have to write the prescription

Vaccination

- Vaccines available for:
 - Coronavirus, rotavirus
 - E. coli
 - Clostridium perfringens
- Given to cow pre-calving
- Cow generates antibody, transfer in colostrum

- Label: "aids in the prevention..."
- Not magic bullets
- Need to ensure adequate colostrum gets into calf
- Use according to label as timing is important

Oral antibodies

- Available against:
 - E. coli
 - Clostridum perfringens
 - Coronavirus
- Temporary immunization for newborn calves
- Label: "aids in the prevention..."

- Can be useful in a high risk situation
- Cost-benefit analysis from farm to farm

Take home messages

- Recognize and treat diarrhea early
- Oral electrolytes key
- Vaccines available and can help
- Establish treatment and vaccination protocol with herd veterinarian
- Use all drugs according to label

Questions?

