

Scours in Your Herd

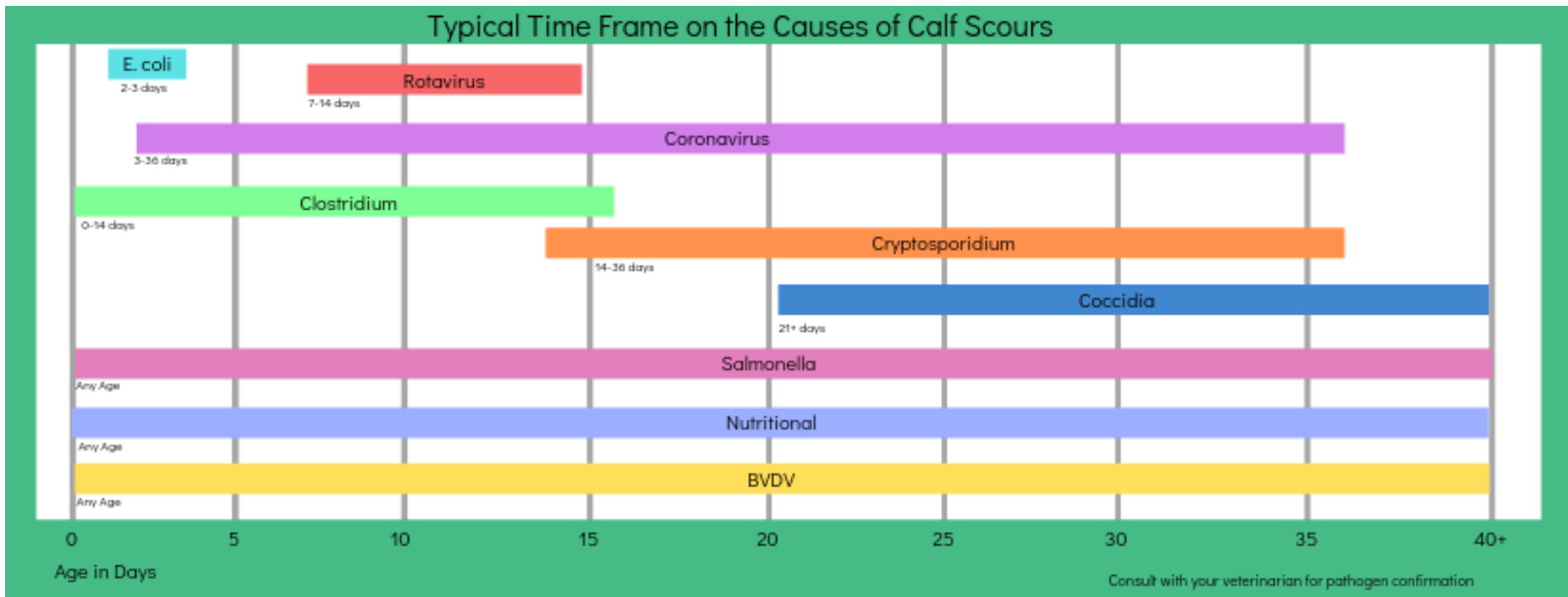
Scours – a health problem to any herd. Scours can occur in any age cattle, but most cases are calf scours which occur in the first month of life. The primary cause of death in calves from 2 to 30 days of age is calf scours. Scours is one of several management diseases where prevention protocols and attention to details in multiple areas can lead to success. Advances in scours treatment may bring improved survival rates, but the economic benefit of improved preventative protocols exceeds the benefit of treatment.

Scours is not a single disease; it is a clinical sign associated with several diseases and digestive conditions. Common signs of calf scours are watery stools, weak and depressed calves, dryness to mouth and nostrils, sunken eyes, and calves that stagger or sway as they walk. Most pathogens do their damage to the calf's intestinal tract which prevents the absorption of fluids from the intestines. The scouring calf loses fluids and rapidly dehydrates which is the loss of essential body chemicals (electrolytes) and the buildup of acid. Death from scours is usually from dehydration, acidosis and loss of electrolytes.

The known causes of scours are grouped into two categories: [1] **infectious causes** and [2] **noninfectious causes**.

Infectious causes are classified as bacterial causes, viral causes, or as a protozoan parasite causes.

- **Bacterial Causes:** *E. coli, Salmonella, Clostridium Perfringens and other bacteria*
- **Viral Causes:** *Rotavirus, Coronavirus, BVD virus, and IBR virus*
- **Protozoan Parasite Causes:** *Cryptosporidium, Coccidia, Yeast and Molds*



Bacterial Causes:

Escherichia Coli (E. coli) – Most important cause of bacterial scours in calves. Calves have the chance to pick up E. coli infections from the environment, particularly when sanitation is marginal. Usually affects calves 2-3 days old – they will experience diarrhea, depression, coma.

Salmonella – Produces a potent toxin within its own cells. Calves are usually affected at six days of age or older. Calves will experience diarrhea with blood and fibrin, depression and fever.

Clostridium Perfringens – Commonly known as enterotoxemia; fatal and caused by toxins released by various types of B, C and D. Associated with a change in weather, change in feed of the cows, or management practices that cause the calf to not nurse for a longer period than usual. May include strain, kicking at abdomen, foul-smelling diarrhea containing blood.

Viral Causes:

Rotavirus – Disrupts the cells which line the small intestine causing diarrhea and dehydration. Calves will experience watery brown to light green diarrhea with blood mucus.

Coronavirus – Disrupts the cells which line the small intestine causing diarrhea and dehydration. Calves will experience profuse, watery and yellow diarrhea.

Bovine Viral Diarrhea Virus (BVDV) – Exposure to BVDV will cause the calves to have ulcers on the tongue, lips and mouth. Very liquid feces that are yellowish brown to grayish green and may become yellowish gray containing blood and fibrin.

Protozoan Parasite Causes:

Cryptosporidium – Protozoan parasite is much smaller than coccidia. Adheres to the cells which line the small intestine and damage the microvilli. Calves will experience watery brown to light green diarrhea with blood mucus.

Coccidia – Most outbreaks are associated with stress, poor sanitation, over-crowding or sudden changes in feed. Tarry and often bloody scours occur.

Noninfectious causes are flaws in management which could be:

- **Inadequate nutrition from the pregnant dam** - quality and quantity of colostrum are adversely affected and also deficiencies in vitamins A & E
- **Inadequate environment** - muddy lots, crowding, contaminated lots, calving heifers and cows together, wintering and calving in same area, storms, heavy snow or rainfall, etc.
- **Insufficient attention to the newborn calf** - in difficult birthing or adverse weather conditions
- **A combination of issues**

Scours prevention is the most important and cost-effective area to invest your time.

Prevention of Calf Scours

Cow	Calf
Bovine Pili Shield + C Vaccine	Bovi-Sera Vaccine
Calf-Guard Vaccine	Bovilis Coronavirus Vaccine
Guardian Vaccine	Calf-Guard Vaccine
Scour Bos 4 Vaccine	First Defense Boluses
Scour Bos 9 Vaccine	First Defense Technology Newborn Calf Supplement
ScourGuard 4K Vaccine	Salmonella Dublin-Typhimurium
ScourGuard 4KC Vaccine	

Supportives that Target Prevention of Calf Scours

Achieve Pro with Cryptex	Deccox-M
BoviCare-cp	DuraZyme Maximum Strength Calf Paste
Calvilyte	EPIC Calf Scour Defense
CORID 1.25% Crumbles	First Arrival with Encrypt
CORID 1.25% Pellets	LIFELINE Intervene Supplement
CORID 9.6% Oral Solution	Neonorm Calf Boluses
CORID 20% Soluble Powder	One Day Response
CryptoPro	Tri-Pectate Calf Supplement

Treatment of Calf Scours

Infectious Treatment	Non-Infectious Treatment
Agrimycin Inj. Antibiotic	AmproMed Oral Solution for Calves
Amplimune Immunostimulant	Bismusol Anti-Diarrheal Liquid
AmproMed Oral Solution for Calves	Blue Ribbon Anti-Diarrheal Boluses
Bio-Mycin Inj. Antibiotic	Bolisorb Boluses
Calf Pro Medicated Liquid	Intesti-Sorb Boluses
Calf Renova	Kaolin Pectin Solution
Calf Scour Boluses	Maxi-Sorb Boluses
CORID 1.25% Crumbles	
CORID 1.25% Pellets	
CORID 9.6% Oral Solution	
CORID 20% Soluble Powder	
Duramycin Inj. Antibiotic	
Last Stand with ImmWave	
Liquamycin Inj. Antibiotic	
Noromycin Inj. Antibiotic	
Oxy 500 Calf Boluses	
Sustain III Boluses	
Terramycin Scour Tablets	

Electrolytes/Rehydration for Calves

Advance Arrest	Hydrafeed Calf Supplement
Blue Ribbon Calf Electrolyte	Hydra-Lyte Electrolyte Replacement
BlueLite C	Kickstart
BlueLite Replenish M for Calves	Oxford Ag Electrolyte Premium Solution
Bounce Back	Re-Sorb Calf Electrolyte
Calf Restart One-4	Revitilyte Basic Oral Electrolyte
Diaque Supplement	Revitilyte Gelling Oral Electrolyte
Electrolytes Plus	Sx Oral Electrolyte
Entrolyte H.E	TheraCaf Plus
EPIC Calf Electrolyte	Vitamins & Electrolytes

Supplies You May Need to Treat Calf Scours

Bovine Easy Drencher	Oral Calf Feeder (Coburn)
Calf Drencher Bottle	Oral Calf Feeder (MAI, Inc.)
Deltatrack Digital Thermometer	Plastic Balling Gun - Small, Large
Disposable IV Set	Plastic Balling Gun - Medium
Eco-Fast Digital Thermometer	Pro Calf Blanket
Fluidfeeder	Sharptemp Digital Thermometer
Insulated Calf Blanket	Sharptemp-V Digital Thermometer
Intravenous Sets	Simplex IV Set
Mercury-Free Thermometer	Winter Calf Coat
Oral Bottle Feeder (MAI, Inc.)	