Treating Pneumonia in calves

by Heather Smith Thomas

Pneumonia can be a killer at any stage of a calfs life. Any severe stress — wet, cold weather, sudden changes in weather from one extreme to another, a long haul, bad weather during weaning — can set the calf up for pneumonia.

The organisms that cause pneumonia are ever-present in the environment. Usually the calf's immune system is able to handle these pathogenic invaders and the calf stays healthy. They can get the upper hand, however, when its resistance is lowered by stress.

This is why pneumonia often follows a bad case of scours in the very young calf, especially if the weather is wet, cold or windy. The scours wear it down and lower its resistance and the pneumonia-causing organisms move in and set up shop in its respiratory passages and lungs.

A newborn wet calf in a drafty barn or a young calf in a moist barn (bedding saturated, high humidity), these are conditions that can make the calf susceptible to pneumonia. Breathing in too much fluid at birth, with some of it settling in the windpipe and lungs, can also be a factor. Extremely cold weather can result in calfhood pneumonia if conditions are lined up just right and calves don't have enough shelter.

Cattle don't have very strong lungs, as compared with a horse, for instance. Calfhood pneumonia can be a tough situation to fight unless you catch it early, Once the lungs are damaged and filling with fluid, it can be an uphill battle. Heroic effort and intensive care will be needed to save the calf.

It's important to spot the early warning signals. If you can detect that a calf is feeling poorly and diagnose his problem early, pneumonia will be a lot easier to clear up than if you delay treatment until after he's in serious trouble.

The calf coming down with pneumonia usually goes off feed, lies around a lot, or stands humped up looking depressed and dull. It's not very active because of pain. Its ears may droop instead of being perky and alert.

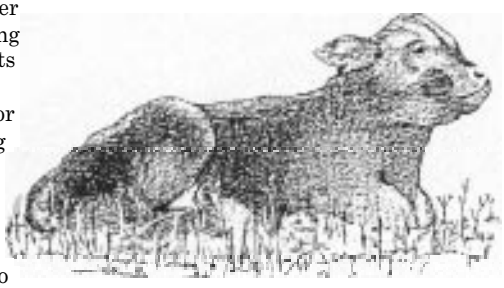
Respiration rate may or may not be elevated. If the calf is breathing fast or labored (sometimes making a grunting sound) it's in pretty serious trouble.

Carry a thermometer

Get into the habit of carrying a thermometer around when you check calves. Sometimes you can tell that a calf has a fever by feeling its nose or the inside of its mouth. But during cold weather this is not always a sure test; nor is respiration rate. A calf with pneumonia during cold weather may not be breathing fast and he may have a cool nose. The best way to make an accurate diagnosis is to take the temperature.

An animal thermometer or human rectal thermometer works fine. Just tie a string to the end of it so you won't ever lose it in a calfs rectum. Keep it in a thermometer case when you're carrying it in your pocket to prevent breakage.

Shake the thermometer down before you use it. Lubricate it with a little of your own saliva (it will go into the calfs rectum a lot easier and won't cause him discomfort). Leave it in for two minutes



for an accurate reading. Normal calf temperature is 101.5 degrees F. Anything over 102.5 should be considered abnormal and you should keep close watch on that calf. If a calf has a temperature over 103, he is definitely sick and should be doctored. Anything over 104 is SERIOUS.

On the other extreme, if the calf has already been sick awhile and is dying or going into shock, his temperature will be sub-normal.

Another clue to calf pneumonia will be that the cow is not nursed out. If the cow has a full udder, check the calf and determine exactly what the problem is. If the calf isn't scouring, but doesn't feel well, it may have pneumonia; check its temperature.

Giving additional fluids is crucial, especially if the calf has a fever (fever tends to dehydrate him) or if you are using any sulfa drugs in your treatment.

Giving sulfa to a dehydrated animal can cause kidney damage. Sulfa is broken down and eliminated through the kidneys and urine. There must be adequate fluid in the body for this task, otherwise the kidneys can be irreversibly damaged and you'll lose the calf.

Intensive care is very important

This means having the calf in a warm, dry place – out of the wind, cold and wet weather – and includes giving him adequate fluid. If the calf isn't nursing enough, give him fluid with a stomach tube or esophageal feeder.

Antibiotics should be started immediately. Your veterinarian can advise you on what antibiotics will be most effective. On our Idaho ranch we have the best luck fighting pneumonia with injectable tetracyclines (Liquimycin, Oxy-tet or Biomycin) given in conjunction with sulfa treatment.

With a small calf, we give the sulfa as a liquid injection (intramuscular shots). On a larger calf this would mean too many big shots of injectable sulfa, so we give the sulfa in a long-acting pill. Sulfamethazine (such as Spanbolets, or Calfspan) works well.

If the animal is having trouble breathing, we also inject an expectorant (a preparation containing camphor in oil, which can be obtained from your vet) to help break up the congestion in the lungs. We also use DMSO (dimethyl sulfoxide). It not only helps the calf breathe easier by reducing the fluid in the lungs, but also acts as a bloodstream carrier to help take your antibiotic into the lung tissue where it is most needed for fighting the infection.

DMSO can be given once daily for several days, if necessary. It should not be used much longer than that, or it tends to break down the animal's red blood cells.

When doctoring baby calves for pneumonia, use the strongest or largest dose of antibiotics recommended for that size animal. If using an injectible antibiotic, give it twice daily instead of just once daily. Young calves metabolize and eliminate drugs from their systems much more rapidly than an older, larger animal. Also, in the young calf you must make sure you keep the antibiotic levels high enough to combat the infection.

This is another good reason to make sure the calf's fluid intake is adequate. If you are giving high doses of antibiotics frequently, you don't want to ruin the kidneys.

Don't quit

Another precaution when fighting a serious case of pneumonia: don't quit too soon. The calf may seem to be getting better, the fever may be down, and you may be tempted to stop treatment too soon. Keep giving the antibiotics for at least one or two full days after all symptoms are gone and the temperature is normal again (especially if it was a bad case of pneumonia).

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