

# CODD presents highly contagious lameness challenge

By Sophie Prichard, ProStock Vets, Carmarthen, West Wales.



Lameness continues to be major problem for the industry, with prevalence estimated to be in the region of 10% of the national flock. An ambitious, but achievable, target for well managed flocks would be 2%.

In achieving that target it is important to acknowledge that contagious ovine digital dermatitis (CODD) has joined scald and footrot as a common cause of lameness in sheep in the UK.

CODD has only been recognised in the last 20 years but is considered to be endemic in the UK. It is a highly contagious bacterial disease with reports of it affecting up to 40% of newly infected flocks. The severity of lameness and the high risk of rapid spread make this a serious welfare issue for the UK sheep industry. In addition, it is also a cause of significant production losses as lame sheep are likely to have lower body condition scores and decreased fertility.

Current knowledge points to a link with spirochete bacteria responsible for bovine digital dermatitis, but the disease



Advanced CODD will cause separation of the horn and eventually detachment of the hoof capsule from the foot.

remains poorly understood. A recent study has demonstrated that sheep infected with footrot are at increased risk of developing CODD. Research is ongoing at Liverpool University.

## Correct identification

Being able to identify CODD is essential as treatment for other common causes of foot lameness (scald and footrot) will not be effective. One study found that 36% of farmers could correctly identify CODD, meaning almost two thirds of CODD-affected sheep would be misdiagnosed and incorrectly treated.

In common with virulent forms of footrot, sheep are often non-weightbearing on the affected foot/feet. CODD most commonly affects one digit in one foot, and is seen more often in hind feet. However, in severe cases it can affect up to all four feet. Any age of animal can be affected.

With CODD, the primary lesion is an ulcer found at the outer wall of the coronary band (the junction between hair covered skin and the hoof capsule). In contrast to scald and footrot, two other common causes of foot lameness in sheep, there is no involvement of the interdigital skin.

From the initial lesion, the infection progresses underneath the hoof capsule towards the toe, causing separation of the horn and eventually detachment of the hoof capsule from the foot. Damage to the horn-reducing corium may be so extensive that the horn fails to re-grow and the foot is permanently affected.

The best control of CODD is to keep it off your farm and, for this, good biosecurity is key. CODD is a highly contagious disease so preventing it from entering the flock is easier than curing it.



Sophie Prichard

• **Isolate** incoming sheep (including rams) whether bought in, on hire or returning from tack for 30 days.

- **Inspect** for lameness regularly; prompt identification, isolation and treatment will limit spread.
- In high risk groups, consider **footbathing** animals as they come off the lorry onto the farm.

If you are unfortunate enough to get CODD on the farm, using a combination of both topical and systemic (injectable) treatment gives the best recovery rates and, if administered to unaffected members of the group, has been shown to reduce new infection rates.

- **Injectable:** Two injectable antibiotics have been used to successfully treat CODD (see table) but no trials comparing the results have been done and no treatments are specifically licensed for the condition. Long acting amoxicillin has the advantage of a shorter withdrawal period, making it more suitable for finishing lambs, and can also be administered by farmers. Tilmicosin is reportedly more effective in the acute



The primary CODD lesion is an ulcer found at the outer wall of the coronary band (the junction between hair covered skin and the hoof capsule).



This picture shows normal interdigital skin; this area is not affected by CODD.

stage of CODD but is more expensive and must be administered by a vet. If tilmicosin is used, accurate weighing is important due to potential toxicity (and expense!) if overdosed. This product is not suitable for lambs weighing less than 15kg.

- **Topical:** No antibiotic footbath solutions are licensed for use in sheep, so are therefore subject to a statutory 28 day meat withdrawal. Both lincomycin and tylosin have been used to treat CODD and the treatment can be repeated after 48 hours.

When footbathing remember the effectiveness is dependent on the depth and concentration of the solution, contact time with feet, cleanliness of the feet and drying time. The footbath should contain enough solution

to cover the accessory digits at the back of the leg and the concentration should be 100g powder per 200 litres of water. Feet should be as clean as possible before entering the footbath so, if practical, walk them through a plain water bath first to remove obvious dirt. For small numbers of sheep the solution can be made up in a garden spray bottle and applied. Stand sheep on clean concrete for 30 minutes after footbathing to allow the product to dry and ideally turn sheep onto clean pasture that has been rested for two weeks or put onto clean bedding if housed.

## Comparison of injectable CODD treatments

	Amoxicillin	Tilmicosin
Meat withdrawal	25 days	42 days
Administration	Farmer or vet	Vet only
Relative cost		2x amoxicillin

## Permanent damage

Two important things to remember with CODD is that any cases that fail to resolve despite treatment may have suffered permanent damage and should be culled. And foot trimming should be avoided where possible. If absolutely necessary remove only loose horn. Overparing will create more problems than it solves and is painful. Remember to disinfect trimming equipment to prevent spread of bacteria.

**CORRECTION:** The article on *Sheep-focused vets tackle big topics* in the March/April edition of *Sheep Farmer* incorrectly stated that an adverse reaction occurs when Cydectin 1% and Footvax are administered at the same time. Problems can occur even if there is considerable time between the injections so please consult your vet or animal health advisor for more information if these are products you use in your flock.

# Coccidiosis remains a threat to young lambs

Planning ahead and understanding how coccidiosis affects your farm can help avoid clinical problems and production losses both this year and in subsequent years, says Dr Fiona Lovatt, Independent sheep consultant and Sheep Veterinary Society President.

Coccidial oocysts survive year on year so by monitoring where and when problems appeared in previous years it is possible to monitor coccidial levels on your farm and identify fields where pressure points persist.

"By talking to your vet, carrying out a risk assessment specific to each batch of lambs and getting the treatment timing right, it is possible to reduce the likelihood of clinical symptoms appearing," says Dr Lovatt. "This should help ensure suckling lambs continue to grow at a rate in excess of 300g per day."

A single coccidial oocyst can multiply millions of times in the right conditions

so it is important to stop early lambs multiplying the burden on the land, posing a threat to others in the group and specifically to later-born lambs with no immunity. If the risk hasn't been limited, younger sheep should not be turned onto fields where older lambs have been.

"The key to the control of coccidiosis is to allow lambs to gradually build immunity but to carefully target appropriate treatment at the correct time and where necessary," says Dr Lovatt. "I have seen disappointment with the inappropriate use of medicated feed or when a short acting product has been given either too late or too early with repeated retreatments. The precise treatment timing is less critical with toltrazuril [Baycox] and treatment of tightly batched lambs about a week after exposure to a coccidiosis risk is ideal."

Used to treat lambs at the right time, toltrazuril can considerably reduce the

amount of faecal oocysts that were excreted back into the lambs' environment, reducing the disease pressure for other following batches of lambs. The advice is to group lambs by age for treatment purposes.

Dr Lovatt gives the example of susceptible lambs of four to eight weeks old grazing a field with a history of problem: "In this instance I would advise treatment about a week before you would normally expect to see disease symptoms. With this treatment protocol the lambs will have been exposed to a low level of disease allowing them to develop a natural immunity, but before any damage is done.

"By being better informed and discussing the right questions with your vet when carrying out a risk assessment on batches of lambs, it is possible to achieve the gold standard in coccidiosis control."

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