Disease of the Newborn Lamb

Hypothermia

Hypothermia in the newborn lamb occurs when the heat loss is greater than the heat production resulting in a body temperature that is lower than normal.

39-40°C – normal body temperature
37-39°C – indicates mild hypothermia
Less than 37°C – indicates severe hypothermia

Newborn lambs that are less than 5 hrs old usually have a brown fat reserve which lambs can use for heat production. These lambs should therefore, respond to drying, warming and then feeding by stomach tube if necessary.

Newborn lambs older than 5 hrs old have no brown fat stores left. If these lambs are warmed without being given energy, they may develop hypoglycaemic fits and die. To provide energy to these lambs, we can do the following:
If the lamb can hold its head up, feed the lamb by stomach tube before warming, and then warm under a heat lamp before re-feeding.
If the lamb cannot hold its head up, it is dangerous to feed as the lamb will most likely regurgitate, inhale and then die. For these lambs, we recommend an intraperitoneal injection of glucose before warming the lamb.

The technique for intraperitoneal glucose injection is as follows:
Use a warm 20% glucose solution (equivalent to 1tsp sugar in 25ml water) at a volume of 10ml/kg
The site for injection is just below and to one side of the navel. The lamb is held by its front legs and the needle is directed at a 45° angle backwards towards the tail end of the lamb. When the lamb is conscious and able to suck, feed at least 150-200ml milk 3 times a day.

If this is a technique you would like to try, please contact the farm office to speak to one of the farm vets for advice or for a visit to be shown how.

Watery Mouth

Watery mouth is a condition that affects very young lambs, normally up to 3 days of age. It is caused when lambs swallow a lot of E.coli bacteria from a dirty environment before they've sucked colostrum. The bacteria pass into the gut and multiply and die. As the bacteria die, they release an endotoxin which is absorbed into the bloodstream resulting in endotoxic shock.

Clinical signs

- Lambs quickly become dull and weak. They don't get up and they become unwilling to suck.
- Lambs have cold, wet lips and muzzles from drooling saliva.
- The tail is often dry with no faeces
- Without treatment, the lamb usually dies within a day but some live long enough to develop scouring and even joint ill.

**Treatment**

- Daily antibiotic injection
- Oral antibiotic therapy
- A small dose of anti-inflammatory such as Metacam which has anti-endotoxin effects.

**Prevention**

- Ensure lambs receive adequate colostrum – stomach tube at risk lambs such as weak lambs or triplets.
- Ensure the lambs have a clean environment.
- Oral antibiotics at birth. This should be done if other methods fail.

**Neonatal Scours**

Outbreaks of diarrhoea in newborn lambs can be investigated to determine the causal agent if the outbreak is deemed to be causing a problem. This can be done by submitting up to 10 samples which can be sent off to the lab for analysis. By diagnosing the causal agent, appropriate treatment and control measurements can be put in place.

**Causes**

- *Lamb dysentery* – this is caused by a Clostridia species. To protect against this, vaccinate all ewes pre-lambing with a clostridial vaccine.
- *E.coli* – oral rehydration therapy, injectable antibiotics and adequate colostrum intake for future born lambs.
- *Rotavirus* – if found to be a problem, then lambs can be given cow colostrum from cows vaccinated against rotavirus. Otherwise, treatment is oral rehydration therapy.

**Treatment**

Treatment must include isolation, warmth and plenty of fluids and electrolytes. It is also important to keep the environment clean. Pens must be thoroughly disinfected between batches of lambs.

**Navel Ill**

This occurs when infection is able to enter the body through the fresh navel at lambing time. Bacteria tracks up the navel where it can either cause a localised infection of the navel area where it forms an abscess, or, in particularly severe cases, infection can extend into the abdomen and into the bloodstream.

**Contributing factors:**

- Lambs born into a dirty environment – ensure thorough disinfection of pens
• Navels not being disinfected close enough to birth – ensure all navels are dipped in 10% iodine as close to birth as possible
• Insufficient colostrum intake at birth – feed any lambs not keen to suck and pay special attention to triplets.

Clinical signs

• Swollen navel
• High temperature
• If tracked into the bloodstream lambs can become very sick and stop sucking. They lie for extended periods and stand with hunched backs.

Treatment

• A short course of antibiotics can clear up simple infections but more severe cases will need extended courses
• Anti-inflammatories.

Joint Ill

Joint ill occurs when bacteria enter the newborn via the oral route, through the navel or through other routes. These bacteria travel through the bloodstream to the joints.

Clinical signs

• Hot, swollen joints
• Very painful joints
• Reluctance to stand and suck

Contributing factors and treatment is as with navel ill and should include antibiotics and anti-inflammatories.