

## Spring 2019

### Step-by-Step Guide to Combating Neonatal Lamb Losses

With the Facebook post last week touching on the causes of lamb losses in the first 48 hours of life, here are a few practical pointers to help counter those problems highlighted by Olivia - namely **hypothermia** (low core body temperature) and **hypoglycaemia** (low blood sugar levels).



An essential piece of kit to have ready for the lambing period is a 'warming box' - something as simple as a 1.5m<sup>2</sup> by 1.0 m high plywood box, with a hinged lid, a few 5cm holes drilled out of the sides, lined with some dry towels, and an inlet near the top for a heater. Heated air is preferable to traditional infra-red lamps as the risk of overheating is less, and the lamb is heated all over, not just the uppermost surface. The critical point however, is to have a thermostat on the heater set to 35 to 37 °C, and have a wall thermometer mounted inside the box as a double-check.

#### WHAT TO DO WHEN YOU FIND A 'FLAT' POORLY RESPONSIVE LAMB?

1. Dry with a towel first
2. Take the lamb's temperature - insert thermometer into the rectum up to 4cm  
**39-40°C = normal temperature**  
**37-39°C = moderate hypothermia**  
**less than 37°C = severe hypothermia**
3. Next step is to consider the age of the lamb - if it is more than 5 hours old it is unlikely to have energy reserves remaining. If this is the case, or if it is very likely, then it is important to provide a glucose injection (20ml of 20% dextrose given intra-peritoneal) or give milk first, prior to warming the lamb.
4. Use the Lamb Survival Flowchart to follow which action to take in each case.
5. Make sure you re-take the temperature every 30 minutes until it is normal (39-40°C) or until the lamb is stood and able to suckle independently.



**Ask one of Chapelfield's vets if you would like a demonstration of how to give a glucose injection - or take a look at the guide in the link below from AHDB.**

#### A few essential pointers on colostrum:

Each lamb must take in 200 ml/kg of colostrum during the first 24 hours of life, with 50 ml/kg of that taken within the first 2 hours, if not sooner.

Fresh ewe colostrum is best. Second choice would be from a frozen ewe colostrum store. Failing that, cow colostrum can be used, but following the advice below. If unavailable, then colostrum replacement products can be used as a last resort. Milk replacer products must only be used after the first 24hrs of life and once adequate colostrum has been given.

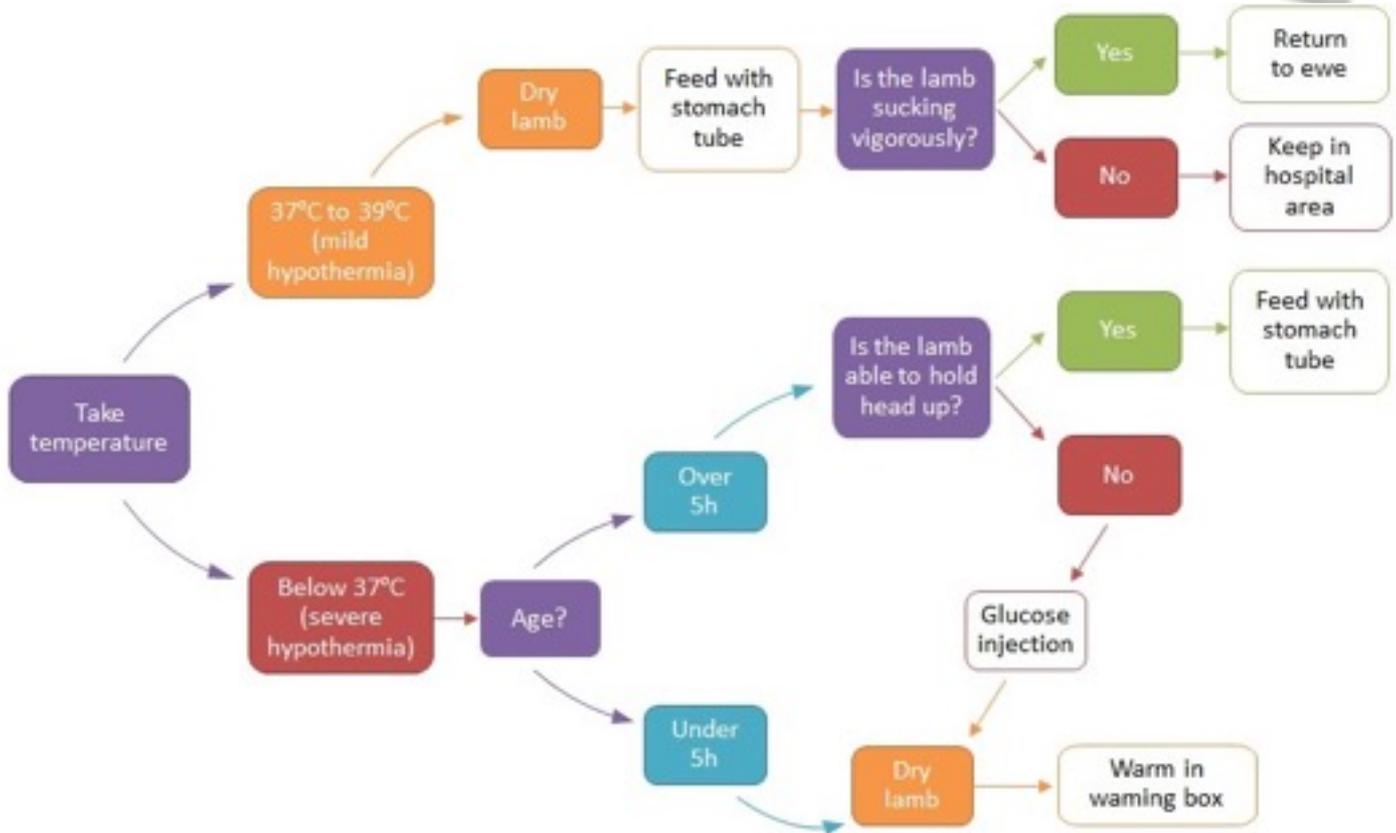
If there is insufficient ewe colostrum, it is possible to use cow colostrum pooled in advance from more than four dairy cows previously vaccinated with a multi-component sheep clostridial vaccine preparation 3, 6 and 10 weeks prior to calving

Cow colostrum is less energy dense than that from a ewe - so the volume must be increased by an extra third (e.g. if giving 100ml, must give 133ml of cow colostrum)

Thaw colostrum in a water bath between 50-60°C, do not microwave as this will destroy the antibody proteins.



## Lamb Survival Flowchart



Dr Ed Pilkington

Resources: [www.beefandlamb.ahdb.org.uk](http://www.beefandlamb.ahdb.org.uk) [www.nadis.org.uk](http://www.nadis.org.uk)



In the age of antimicrobial resistance concerns and realities, there are new initiatives and requirements popping up particularly in the livestock industries. One such recent program relevant to the dairy sector is the MilkSure initiative targeting responsible use of antibiotics in dairy cows and understanding the creation and rationale behind milk withdrawal periods.

Ultimately the initiative promotes farmer stewardship and understanding of the use of antibiotics on his dairy cows, promotes a strong working relationship with farmer and vet, and gives further quality assurance to consumers. Becoming accredited is a two stage process, the first entailing lectures and discussions of the course content guided by a registered veterinarian, and the second part is done individually on each farm to tailor the program more accordingly.

Stage one took place in February at our Brooke surgery and was a great success. Lots of good information, questions, and discussion were passed around, and of course some laughs and good food. For more information on the MilkSure initiative, feel free to contact us at Chapelfield Veterinary Partnership Livestock services, or find information online from the website <https://milksure.co.uk/>



Dr Olivia Turley MVB MRCVS

Turning livestock out to grass as soon as weather and ground conditions allow and once sufficient grass covers have built up, should at least in theory be the core focus for farmers over the next few weeks. Because grass is cheaper than silage or concentrate feeds, getting cows out to grass early should reduce indoor feeding costs and increase margins.

There are a number of conditions that are more likely to be seen in cattle in the spring rather than later in the year when animals are at pasture.

### FEED-RELATED PROBLEMS

The switch from winter ration to a diet based on spring grass can have a significant effect on animals, especially dairy cows. Cows in early lactation with the highest yields will be most at risk. Adjusting the ration to maintain good rumen health is important to try to avoid some of the consequences of the change to a fresh grass-based diet. These consequences may manifest in different ways, including diarrhoea, reduced milk yield and fertility, weight loss and displaced abomasum. A gradual turnout can help cows adjust to the dietary change.

#### Nutritional Myopathy or 'white muscle disease' (WMD)

WMD is most commonly diagnosed in fast-growing suckler calves which are not receiving supplementary feed. The affected calves may be seen to walk with a stiff gait or show difficulty rising from a recumbent position, and, if untreated, this may be associated with a loss of condition. Some calves can be acutely affected and may become recumbent. Dyspnoea is also occasionally observed if intercostal muscles or the diaphragm are involved, and if the heart muscle is affected some animals die due to cardiomyopathy. The cause is usually selenium deficiency although in a few cases low vitamin E concentrations are identified.

#### Hypomagnesaemia

Spring grass is well known for its low mineral content, and animals which receive no supplementary magnesium in feed, water or using intraruminal boluses, are at risk of hypomagnesaemia. Cattle are particularly susceptible, although the disease can also manifest in sheep. Affected animals may simply be found dead, or collapsed, fitting and hyperaesthetic. Supplementation of animals to ensure an adequate daily intake is recommended as there are almost no body stores of magnesium.

### INFECTIONS

One of the possible consequences of feeding poor-quality forage is opportunistic infections. **Listeria monocytogenes** causes abortion, encephalitis, eye infections and occasionally systemic disease in cattle. While cases can occur throughout the year, more tend to be diagnosed during the late winter and spring. Disease is most commonly associated with feeding spoilt silage, with both pit and baled silage being potential sources of Listeria species, due to the incorporation of soil or heavy rainfall and flattening when the grass is cut, and subsequent failure to establish good anaerobic fermentation.

Infection by **Bacillus licheniformis** and **fungi** can also cause abortion in cattle. Like Listeria, Bacillus species can survive in silage, and if pregnant animals are fed the contaminated forage, or have access to its liquor, opportunistic infection can occur.

**Coccidiosis.** The disease arises because calves acquire coccidia that have survived on the pasture from last year's calves (coccidiosis outbreaks also occur in sheep flocks where the lambs graze the same pastures each year). The principal pathogenic species of *Eimeria bovis* and *Eimeria zuernii* are responsible, and diagnosis can be achieved by examination of faeces samples for the coccidial oocysts.

The affected animals can scour profusely, occasionally passing blood in faeces. Although many spontaneously recover, some can be severely affected and occasional deaths have been reported.

Rotation of calf paddocks between years can reduce the risk of disease.

**Botulism** Outbreaks of botulism occur sporadically and are most commonly recorded in the spring and the autumn. They usually arise when cattle have direct contact with poultry litter which has been heaped or spread on the land where the cattle are grazing, or on adjacent fields. The first indication of the disease may be one or more animals found dead; others in the group may show the more typical clinical signs of weakness leading to recumbency. There is no treatment and affected animals may have to be euthanased humanely on welfare grounds.

**Blackleg Clostridial myositis or 'blackleg'** is occasionally seen in housed animals, but more often affects animals at pasture, and tends to be seen in the late spring and summer. There may be a history of acquisition of new grazing, recent flooding or ditching work having been done, although some outbreaks occur completely unexpectedly. The affected animals are often found dead, or if alive lameness may be seen, affecting one or more limbs. When examined, palpable swelling and crepitus may be detected in the affected muscles.

## POISONING

When cattle are turned out there is a risk they will access plants that may be poisonous. This partly reflects the animals' inquisitive nature and their relatively indiscriminate feeding behaviour. The risk increases if they are not fed adequately or if their available diet lacks fibre, which is most likely to occur when they are turned onto very lush spring pastures.

There are a wide variety of potentially **poisonous plants**, which cause a range of different clinical signs in intoxicated animals. Diagnosis depends on being able to recognise the plant that has been eaten, and if animals die, postmortem examination to identify the plant remains in the rumen.

**Nitrate poisoning** can also occur if animals graze certain plants, which results in excess nitrate absorption and conversion to nitrites by rumen microbes. This can sometimes arise if cattle are turned onto stubble turnips. Clinical signs occur if the production of nitrites exceeds the rate of conversion to ammonia, causing dramatic neurological signs, including dyspnoea, weakness, ataxia progressing to lateral recumbency and terminal seizures.

Cases of **lead poisoning** continue to be diagnosed each year despite the risks to animals of discarded batteries and old lead-painted doors and windows, the most frequently identified sources of lead, being known. Ataxia, fitting, blindness and teeth grinding (bruxism) variably occur in affected animals, others may be found dead. All cases of lead poisoning in production animals must be assessed for chemical food safety and risks to the food chain. It is usually necessary to monitor exposed animals for blood lead concentrations before it is considered safe for the animals, or their products, to enter the food chain. APHA VICs can provide free advice regarding suspected lead poisoning incidents and the associated reporting and investigation requirements.

'Failing to prepare, we prepare to fail' Nowhere is this more relevant than when it comes to preparing pasture and cattle for spring turnout

### References

(2017) Risks for cattle at turnout; *Veterinary Record* 180, 351-352.

(2018) Problems that can arise in cattle before and after turnout *Veterinary Record* 182, 252-253.