

PREVENTING AND TREATING CALF PNEUMONIA

The RUMA Targets Task Force has identified calf pneumonia as a key disease area in which to reduce the use of antibiotics. Preventing pneumonia taking hold is the best way of reducing antibiotic use.

Preventing pneumonia

The aim of prevention is a combination of reducing the amount of stress factors the calf has to deal with and supporting the calf's immune system. Whilst the risk of disease can never be fully eliminated, implementing preventative measures to maximise resistance to pneumonia can help to reduce the impact of disease. Areas to focus on to help give the calf the maximum resistance to pneumonia include:

- Good colostrum management
- Vaccination
- Ensuring stocking levels don't go below 4m²/animal (for animals less than 149kg)¹
- Minimising the cooling impact of moisture by providing adequate, dry bedding which is replaced frequently. Sources of excess moisture should be maintained and causes of excess moisture removed from housing
- Keeping house humidity down by maintaining adequate ventilation (but without creating draughts; air speed should not exceed 0.2-0.5m/s as this would lead to performance limiting draughts²)
- Keeping calves within the thermo-neutral zone by providing plenty of bedding, calf jackets etc.³
- Providing good nutrition
- Ensuring age groups are not mixed
 - » 0-2 weeks preferably housed singly
 - » For groups of calves under 2 months old the age range should be less than 2 weeks
 - » For groups of calves between 2 and 6 months old the age range should be less than 1 month
- Practising sound hygiene (i.e. cleaning and disinfection of pens and feeding equipment, work with younger animals before older ones etc.)

In addition to this, thinking about how to minimise stress when transporting or weaning calves is advisable as too many interventions at one time can negatively impact the immune system's ability to protect the animal.



Use of vaccines

Vaccination is a cost-effective tool to help protect the herd against pneumonia by increasing individual calf's immunity and by reducing the amount of circulating pathogens in the environment.

Pneumonia vaccination has been shown to be associated with higher heifer weights at 8 months as calves which were vaccinated weighed over 45kg more than those which were unvaccinated.⁴

All calves in a group which share the same airspace should be vaccinated to maximise protection and, where possible,

vaccination should take place before infection pressures increase (e.g. housing or transport) due to increased stress factors tipping the balance in favour of the pathogen.

Many vaccines are available to protect against pneumonia and they are all different so getting the right one to protect the right ages, and against the right pathogens is critical. Work with your vet using diagnostics such as nasal swabs and blood tests to identify the pathogens on your farm and which vaccine is right for your situation.

Treating pneumonia

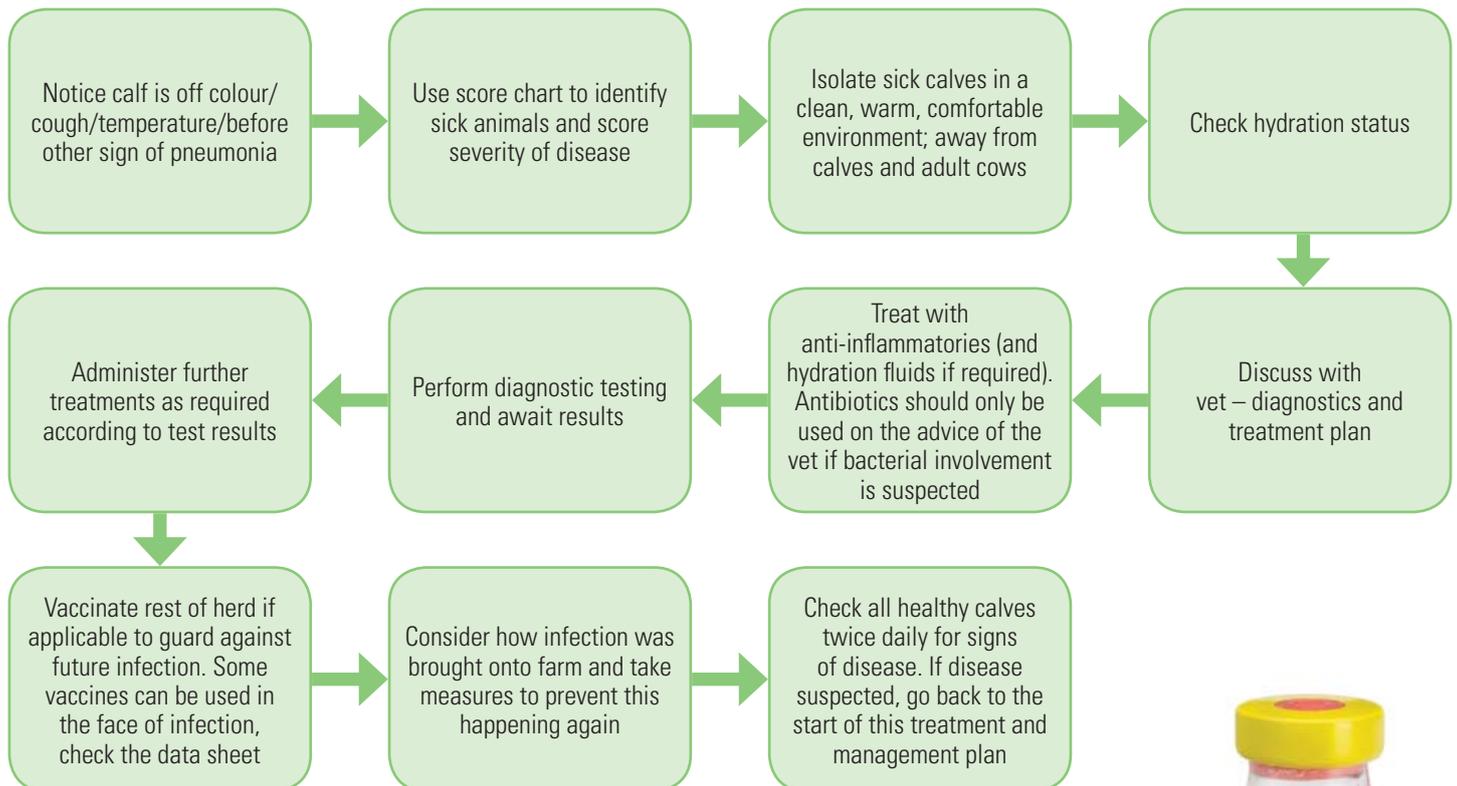
If you have an outbreak of pneumonia it is important that you act quickly. Monitoring and recording any illness in the herd so you can spot the trends of an outbreak can help you to keep on top of calf pneumonia.

Using a scoring system such as the Madison-Wisconsin system or the chart which comes with the Calf Health Checklist can help you to be consistent when monitoring for disease.

Typically calves which develop pneumonia start off being lethargic and eating less due to a spike in temperature before

the more classic signs of pneumonia such as nasal discharge, cough and lying down are seen. It is crucial to act quickly to identify, isolate and treat calves to minimise the spread of pneumonia in the herd.

Your vet will be able to help you come up with a treatment and management plan which is specific to your farm's set up and can be put into action rapidly in the event of a pneumonia outbreak. The below flow chart can be used as a starting point for making a plan for your farm.



Creating a plan to minimise a herd's chance of picking up pneumonia and focusing on preventive healthcare can take time and investment; however it will help to optimise your farm's potential, minimise time looking after sick animals and minimising the use of antibiotics.

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References: 1. AHQB (2012) Dairy Housing – A Best Practical Guide. 2. DAAC (2001) Housing Design for Cattle – Danish Recommendations (3rd Edition). 3. Calf Notes (2001) Calf Note #59 – Environmental Effects on Calf Feeding – Basic Concepts <http://www.calfnotes.com/pdf/files/CN059.pdf>. 4. Welsh Dairy Heifer Report (2015) Hybu Cig Cymru.

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