Infectious Bovine Rhinotracheitis (IBR)

What is it?
A viral infection affecting the upper respiratory tract of cattle.

How does it spread?
The main route of spread is by aerosol so risk factors increasing aerosol spread include overstocking, damp bedding, poor ventilation etc. Animals will incubate the disease for about 10-20 days before showing signs of infection.

There is a risk of venereal transmission during the breeding period when running a bull but this mode of transmission is less significant than aerosol spread.

IBR is a herpes virus (like cold sores in humans) so remains dormant in the animal even after the animal has recovered. Any period of stress can cause a recrudescence of disease so heifers coming into the milking herd are a prime target for disease.

What signs do you see?
- MILK DROP
- RESPIRATORY DISEASE

Typically in animals over 6 months old (but can be younger)
- Especially affects heifers calving down and entering the herd
- Discharge from the eyes and nose
- Fever
- Coughing
- Pneumonia (in severe cases)
- ABORTION
  * This is not recognised as a primary effect of IBR in the UK but more as a secondary effect.
- NERVOUS FORM
  * The virus can cause inflammation of the brain and animals will have seizures, become blind and may die
  * The nervous form of IBR is rare.

How do we diagnose this?
- Blood testing
  * We can blood test as part of a complimentary service provided by the vaccine companies
  * This will shows if there has been exposure to the virus
- Post mortem sample
- Taking washes from the calves airways
  * This is a very rapid and effective way of diagnosing IBR
  * We can take samples from dead animals
- Bulk milk tests
This is a complimentary service provided by the vaccine companies.

How do we treat it?
IBR is a virus so there is no direct treatment for the disease. Antibiotic treatment is usually given to cover secondary bacterial infections rather than treat the IBR per se. Anti-inflammatory drugs (e.g. finadyne or metacam) are useful in helping reduce temperatures and inflammation in the lung so speed recovery and ease breathing problems.
How do we control it?

- **Management Strategies**
  - Ensure adequate colostrum intake especially in calves of heifers or whose mothers are sick at calving.
    - **This is one of the most important factors in reducing respiratory disease in young stock and can have protective effects**
  - Do not overstock since overstocking cannot be compensated for by increasing ventilation.
    - **Minimum requirements are 1.5sq.m for 150-200kg calves and 2sq.m. for 200kg+ calves**
  - Ensure adequate ventilation. A house should feel fresh and dry not warm and muggy.
    - Ideally there should be 6 cubic metres of air space for a 6 week old calf and 10 cubic metres for a 10 week old calf.
  - Ensure houses are cleaned out between batches of calves (ideally operate an all in, all out policy or clean out every 4 weeks).
  - Ensure adequate nutrition.
  - Avoid mixing age groups.
  - Avoid damp bedding especially around water troughs and feed areas.
  - Ensure good drainage (ideally a 1 in 20 floor slope).
  - Drain towards the outside of pens rather than the back.

**Vaccination**

There are a number of vaccines on the market but there are two main types:

1. **Inactivated Vaccines**
   - These are ‘dead’ vaccines which require two injections around 3 weeks apart. The onset of immunity is slower than the live intranasal vaccines but they are very effective in routine control of respiratory disease.

2. **Live Intranasal Vaccines**
   - These are ‘live’ vaccines which go straight into the nose. They only require one dose and offer a very rapid onset of immunity. They are only recommended for use in healthy animals but can be very useful if an outbreak is feared. Live ‘marker’ vaccines are available that can distinguish the antibody response of vaccinated animals from those that have been infected with the IBR virus.

**Above all, vaccination can only form part of the control programme. Vaccination will not compensate for poor husbandry or management.**