Vets and antibiotic milk failures

NOTIFICATIONS ARE ARRIVING AT VETERINARY PRACTICES informing them that a client’s milk has failed an antibiotic milk test. The consequences of this can be serious or even a direct threat to the continuation of the business.

If the farmer recognises that the milk is likely to be contaminated and notifies the purchaser before the milk is collected, then the milk is tested and if positive left on the farm. However, if a tanker is contaminated then several farm collections may be added to the bill for incineration of the milk.

Trying to work out the potential national impact is not easy, but there are around four million bulk tank collections each year. Some 500,000 of these are actually tested and 1,250 failed last year. Extrapolation indicates many thousands of potential failures and much grief.

Eliminating on-farm errors

Veterinary practices are being encouraged to become a major part of a “step change” to eliminate on-farm errors. Considerable background information is available and any investigation following the client notification is guided by failures due to milking plant errors (18%), animal identification mistakes (41%), misuse of medicines (26%), other reasons and identification (41%), misuse of antibiotics (26%) and dry cow therapy (48%).

It is explained that different antibiotics respond differently to the inhibitory substance tests commonly used and the levels at which they “fail” are not necessarily the same as their maximum residue limits.

As veterinary practices have not been aware of bulk tank failures until it is too late, the involvement of vets is leapfrogging veterinary surgeon-to-farmer training, paid for by the farmer. Before anyone starts counting the benefits from this major step forward, it may be worthwhile to consider the findings of a recent webinar for British Cattle Veterinary Association members. To be fair, the online delegates may not necessarily be vets and they may not be in practice, but the soundings need some careful thought.

Asked whether it is true that a veterinary surgeon has to authorised cascade use for every individual animal and treatment occasion, only 37% consider the statement to be correct. The creators of the webinar believe the statement is true. Asked whether an inhibitory substance test can be failed by a cow with a natural inhibitory substance in her milk, for example within the next four days after calving, only 19% recognised this true statement.

Admittedly, within the webinar there are only seconds to ponder and select an answer, but there appears to be a genuine need for vets to review their knowledge and understanding of milk and antibiotics.

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Furthermore, where the application of antibiotics is found to be at fault, these are due to dry cow therapy (35%), milking cow therapy (48%), injections (10%) and combinations of therapies (7%).

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Having reviewed and assimilated the content, the next stage is the vet-to-farmer training package delivered to farmers by their own vets. The aim is to safeguard residue-free milk and involves a critical control point approach targeted at medicines use within the herd, accidental contamination of the milk during milking and dry cow antibiotic procedures.

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It is expected that the training will take three hours, but this does not have to be at one time and can involve more than one member of the farm staff at a time. There could also be herdbred from different client farms for the technical essentials section and this can take place at a practice or any convenient location.

The second practicalities part is specific to the herd and includes a farm management plan, developed on the farm. Following this the individual takes an online test. A register of herds with staff who have completed the course is kept centrally.

The MilkSure package has been developed by Owen Atkinson (owen@dairyveterinaryconsultancy.co.uk) on behalf of Dairy UK. Tim Hampton (tim.hampton@atla.com) has been involved with the topic for many years and chairs the Dairy UK Antibiotic Group.

On the MilkSure website can be reviewed details of the Vet’s Training Guide and the 2016/17 Workbook and Manual together with examples of course materials, slide shows, posters and further information links including publications and guidance from purchasers and the Food Standards Agency.

Owen Atkinson comments that in developing the training he now has a much clearer understanding of antibiotics and milk, way beyond the knowledge he applied as a dairy vet.

Mandatory formal training debate

There is a debate whether formal training in the use of antibiotics should be mandatory for all milk producers.

Managers of milk-related businesses are also becoming more aware of the issues and feedback from farmers and vets is being collated with the aim of influencing all dairy farmers and veterinary practices with dairy farming clients.

Pharmaceutical companies are part of the mix and some initial funding for practices to generate interest with clients is being considered.

There have been investigations of antibiotic failures for many years.

Initially the fault is often believed by the farmer to lie with the testing, or other taints, or mislabelling, or the milking machine manufacturer, before any antibiotic misuse is accepted.

On many occasions the vet is contacted as part of the investigation and Paul indicates that practices have a history of consideration and have helped to resolve issues, so that the farmer can move on with a more accurate management plan. Examples are issues of misunderstood withdrawal periods with combination treatments for lameness and mastitis concurrently and milking cows being treated with a dry cow product.

Increasing veterinary surgeon involvement, with training and prevention of antibiotic contamination of milk, is seen as part of the thrust to overcome antimicrobial resistance. For the farmer this national or global view does not appear to be a driver for change. It is the influence of the milk purchaser that is uppermost.