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Question raised by requestor

Directive 98/58/EC states that "Any animal which appears to be ill or injured must be cared for appropriately without delay and, where an animal does not respond to such care, veterinary advice must be obtained as soon as possible." In what situations is the appropriate care provided only by veterinarian? For example, uterine prolapses, can the producer handle or is veterinarian needed right away?
It has come to our knowledge that some farmers handle uterine prolapses on their own, and as I know no medication is used. Can this be seen as appropriate care or should the veterinarian care be obtained right away? Other issue with Bovikalc® boluses with milk fewer (downer), is it appropriate care or should it be seen only preventive and calcium injection as appropriate measure with downer cows?

Answer

EU legislation does not list the medical or surgical procedures that can be performed by non-veterinarians, provided they have received appropriate training. Member States determine which procedures are reserved for veterinarians. In general, farmers are encouraged to call a veterinarian as soon as possible e.g. if an animal is recumbent for a prolonged time, is bleeding heavily, is in severe pain or distress, has a fracture or a uterine prolapse, or requires a surgical procedure. While waiting for the veterinarian, the farmer should administer first aid.

Uterine prolapse, when the uterine has protruded out through the cervix, may occur after parturition when the cervix is still open and the tissue is flattened. Risk factors are hypocalcaemia and dystocia. A uterine prolapse is a medical emergency that must be managed by a veterinarian. The treatment of the prolapse is carried out under epidural anaesthesia; it involves cleaning and repositioning the uterus, possibly applying sutures or stitches, and administering medical treatment e.g. anti-inflammatory drugs, antibiotics and fluid therapy. Uterine prolapse can lead to serious complications such as shock, internal haemorrhaging, infection (e.g. metritis, peritonitis), and even the death of the animal and improper management increases these risks (Miesner and Anderson, 2008). Sometimes amputation of the uterus is the only way to save the animal, especially in small ruminants because the limited pelvic space makes the uterus repositioning more difficult. While waiting for the veterinarian, the farmer should keep the uterus clean and moist. If the animal is lying down, the farmer may extend the hind limbs backwards. If the animal is standing up, the farmer can support the uterus with towels or a harness to prevent ruptures.

In ewes and goats, vaginal prolapse is more frequent than uterine prolapse. When neither suturing nor the administration of anaesthetics is required, a *v*aginal prolapse may be managed by farmers by cleaning the prolapse, repositioning the vagina into the animal, and possibly applying a prolapse retainer until parturition. It is nevertheless advisable that a vaginal prolapse is treated by a veterinarian, especially in the case of recurrence.

Milk fever, i.e. parturient paresis, is a disease of adult dairy cows in which acute hypocalcaemia causes acute to peracute paralysis that makes the cow recumbent. It occurs most commonly at or soon after parturition. The aim of the treatment is to re-establish a normal level of blood calcium.

An oral calcium supplement, such as Bovikalc® bolus, should only be administered to dairy cows predisposed to milk fever, such as high-yielding cows or those with a history of milk fever. Farmers may themselves administer this dietary supplement which is intended for preventive purposes only (Oetzel and Miller, 2012). This bolus should not be administered to cows with acute/peracute clinical signs of milk fever because the calcium intake would not be sufficient or fast enough, since the gastrointestinal functions are often impaired due to smooth muscle paralysis. Furthermore, it may harm the animal because the swallowing reflex of a recumbent cow with milk fever may be impaired, and administering a bolus could cause oesophageal obstruction, leading to bloating and death.

The downer cow syndrome is defined as the inability of a cow to rise and stand for a prolonged period (usually 12–24 hours). The syndrome includes several causes e.g. metabolic, traumatic, infectious, degenerative, and toxic disorders. A diagnosis of milk fever must be made on medical history and clinical examination or based on hypocalcaemia before a specific treatment is given, i.e. intravenous calcium administration. There is a risk of cardiac arrest when calcium is

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administered intravenously. An oral calcium supplement can be administered once the cow has recovered and can swallow without problems. A veterinarian should be consulted in case of a downer cow so that milk fever can be diagnosed and calcium is injected under close surveillance. It is generally not recommended that farmers manage milk fever on their own.

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