

Care And Management of Farm Neonates Young Ones

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Introduction

Livestock farming is one of the major sources of income for farming communities and land less poor farmers. Proper management of the neonates in the postpartum period ensures higher profitability to the farmers. Proper postpartum care reduces the risk of diseases and deficiencies like metritis, hypocalcemia, and ketosis. Proper care and management during this period ensures better performance in the future. The young ones become more vulnerable to disease since birth. It is completely dependent on the mother for food and if the mother dies the orphan will need a foster mother if it is to survive. Therefore, an extra attention is needed to these groups of animals because they often have underdeveloped immune systems, which put their health and welfare at greater risk. The care of neonates is key to the success of livestock operations as young stock will contribute to the future performance of the farm. A neonate is defined as an animal that is less than 4 week of age. Simply put, neonates are your future.

Care Of The New Born Calf

Initiation of respiration: As soon as the calf is born, remove mucous from its nostrils. Allow the dam to lick the calf. Attendants can use their fingers to clear the respiratory passage off any fluids or attached membranes. The hind legs of the calf can be lifted to expel any copious fluids. In case there is no spontaneous respiration, pinch the calf's nose or splash cold water on the nostrils.

Care of Umbilicus: It should be ligated at about 2 inches from the umbilicus. It should be dipped in 7% tincture of iodine. The umbilical region should be kept clean to avoid naval ill.

Colostrum feeding: Colostrum provides the calf with antibodies. Colostrum should be fed as soon as possible as the rate of its absorption is highest in the first 24 hours after birth.

Thermoregulation: Neonates have little subcutaneous fats and glycogen; hence they have poor insulation. Thermoregulation can be done in two ways:

- i) Increasing metabolic rates by providing adequate food to replenish glycogen reserves.
- ii) Reducing the heat loss.

Control of Acidosis: Normally there is mild metabolic acidosis and respiratory acidosis at birth which gets corrected spontaneously. In case of dystocia, severe acidosis can be seen reducing the calf's vigour and suckling reflex thus reducing colostrum intake. If this is not corrected spontaneously, 250-500 ml of 4.2% sodium bicarbonate can be given by slow i/v.

Retention of Meconium: This may show colic like symptoms. This can be corrected by giving enema with saline or feeding of castor oil.

Calf starter and water for ruminal development: For the first few weeks of its birth the calf functions as a monogastric or simple stomach animal as the rumen, reticulum and omasum are not fully developed. Calf starter (mixture of grains, protein source, minerals and vitamins) may help in their development. For the first two weeks the calf is allowed to nibble the calf starter and the intake can be increased by third to fourth week.

CARE OF NEW-BORN KID AND LAMB

Upon delivery, Kids that do not start breathing rhythmically should be vigorously rubbed with straw or towels. Breathing can also be stimulated by inserting a piece of straw or twig into the nose. Remove any mucous from the nose and mouth with a piece of straw, a twig, or a finger. Do not swing or suspend kids by the hind limbs for extended periods of time, but rather place



them in a sitting-up position to allow optimal oxygen flow to the lungs.

Inspect the umbilical (navel) remnants for bleeding and tie off only if you observe excess. Tie off the umbilical cord at the naval (use plain dental floss for this) and then cut the umbilical cord on the doe side. Dip the navel in strong disinfectants such as a 7 % iodine solution, this practice can cause inflammation and delayed healing of the umbilical remnants.

The most important health management procedure for new born kid and lamb is to ensure intake of adequate amounts of colostrum. Kids and lambs need to get colostrum within about 6 hours (12 hours is getting late) and it's best to make sure they get it within the first 2 hours. A general rule of thumb is to give at least half of the total amount within 2 hours of birth and the second half within 6 hours of birth.

CARE OF PIGLETS AFTER BIRTH

Ensure did the breathing passage of all piglets are clear. In case all for difficulty swing the piglet at arm's length or give artificial respiration using a big ruscuscitor. Clean the piglets free of mucous and make their body dry. The naval cord should be cut at a distance 2.5 cm from the body with a sterilized scissor, apply a cord clamp and disinfect



with tincture iodine. Transfer the piglet to a creep area in which the temperature is 25-30°C to prevent from chilling. Assist the piglets to get the teat and suck colostrum from their mother's udder. The sow should suckle the piglets 8-10 times initially in the 24 hours period. Prevent the piglets from being crushed by the sows.

It is advisable to cut the needle teeth of the piglets after birth with disinfected tooth cutter pliers to avoid causing injury and pain to the sow's udder and other piglets when they fight. Normally the piglets have subnormal temperature during the first 30 minutes and returns to normal during next 48 hours. Infrared bulbs should be placed 45 Cm above the piglets. After 4-5 days the temperature is lowered to 26-29°C, by raising the height of the lamp. Litter material provides temperature of 8°C more to the piglet which is cost effective.



Provide supplementary Feeding in case of inadequate Nourishing inability of Sows. In such cases milk replacers can be fed Using a soft plastic tube with a Syringe attached. Iron is necessary to prevent anemia in piglets. It can administered I/V or orally.

Feeding Of Orphan Calves, Kids And Lambs

Newborns whose mothers have died due to some or other reason need to be cared to save their lives. It is usual for farmers to make the orphan young ones being adopted by foster mother. This usually involves the rubbing of placenta and uterine secretions of newly calved mothers on the body of the orphan In front of the new mother. This makes the new mother adopt the orphan born one.

Shelter And Housing

The newborns need to be protected from the extremes of weather Including heat cool and rain yet allowing them ample space sufficient ventilation and sunlight.

Postnatal Diseases

(A) Early postnatal diseases: within 48 hours e.g. malnutrition due to poor mothering, hypothermia due to exposure to cold, low vigour in neonates due to malnutrition, special disease (Navel ill and Colibacillosis).

(B) Delayed postnatal diseases: within 2-7 days after parturition e.g. mammary incompetence resulting in starvation, increased susceptibility to infection due to hyperglobulinemia such as lamb dysentery, colibacillosis and foal septicaemia.

(C) Late postnatal disease: within 1-4 week of life e.g. white muscle disease, Enterotoxaemia.

In calves, the major causes of mortality are with dystocia and with neonatal diarrhoea in postnatal life. Meanwhile, lambs are susceptible to physical and environmental influences. There are numbers of congenital defects in animals which are known to be caused by deficiency of specific nutrients in the diet of dam; such conditions include the following - Goitre in all species due to iodine deficiency, Enzootic ataxic in lambs due to cu deficiency, Vit. D causes neonatal rickets, Vitamin A deficiency which causes eye defect, hairless in piglets.

Foetal hypoxia:

Normally, foals are born in a primary apnoea state, but gasping respiration begins with 30 – 60 seconds. Placental dysfunction or occlusion of the umbilicus occurs during second stage of labour result in a state of terminal apnoea. Vigorous resuscitation is initiated immediately including the following:

- Extending the head and clearing the nostrils from mucous.
- Sealing one nostril by hand and breathing forcibly into the other, the chest wall to be moved only slightly with each breathe.

Navel-ill

Infection of the umbilicus and its associated structures. Normally the umbilical cord dries up within one week after birth. There is usually a mixed bacterial flora including: *E. coli*, *Proteus spp*; *Staph. Spp.* and *Coryn. Pyogenes*. This infection may result in omphalitis, omphalophlebitis, omphaloarteritis, infection the urachus extended to the bladder.

**Omphalitis:**

Inflammation of the external aspect of the umbilicus and occurs commonly in calves 2 – 5 days after birth. The umbilicus is enlarged, painful, may be closed or draining purulent discharge. The calf is depressed, febrile and does not suck normally.

Omphalophlebitis:

It is inflammation of umbilical veins. Large abscess may develop along the course of umbilical vein and spread to the liver forming liver abscess. It usually occurs in calves 1 – 3 month age. Umbilicus is enlarged and containing purulent material in appetite, unthrifty, mild fever.



Omphaloarteritis:

It is the inflammation of umbilical arteries (less common). The Clinical signs and treatment is similar with omphalophlebitis.

Meconium impaction:

Meconium impaction is the most common cause of colic in the new-born foal. Many foals show some degree of straining and discomfort while passing meconium, but in most instances it is passed uneventfully by 24 to 48 hours of age. The meconium most commonly becomes impacted in the rectum or small colon. An enema with mild soap and warm water, a commercial enema, a small amount (10 ml of a 5% solution diluted in warm water) of diocyl sodium sulfosuccinate (DSS), or acetyl cysteine usually result in prompt evacuation of the meconium.



Uroperitoneum

Uroperitoneum is a relatively common cause of abdominal distention and depression in the neonatal foal. The condition predominates in males, but may occur in females. The most common cause of Uroperitoneum is a ruptured urinary bladder, but other sites in the urinary tract may also leak, including the ureters, urachus, and urethra.



Clinical signs of Uroperitoneum are rarely noticed before 48 to 72 hours of age, particularly if the foal is not being watched closely.

Conclusion

Newborn care was sub optimal and the primary source of knowledge the farmers use to develop neonatal care practices was their own experience although many also relied on industry based advisors most often veterinarians. Martina and Wiggins estimated that 20% calf mortality resulted in reduction of 38% profit of a livestock farm. For efficient production, new calves are required to replace the old and debilitated ones. Too, often, the future of their hearts production is in jeopardy due to lack of attention, care and management of the young calves This suggest potential targets for intervention strategies to improve better neonatal care and management on farms. The take home message is that all newborns require excellent management and careful supervision to identify and address potential problems as soon as possible.

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