Post-operative Procedure

Surgical Complications:

1. ***Hemorrhage*** -Risk of hemorrhage is greater after surgical castration.
2. ***Disease*- Castration-associated immunosuppression may increase risks of local or systemic disease after the procedure.** **Necrotic tissue, such as ischemic scrotal tissues and testes after banding, is prone to infection with pathogens. Clostridial organisms, ubiquitous in soil, may enter the wound and result in local or systemic infection. Clostridial vaccination prior to castration is recommended. Use of rubber rings in calves older than 6 months may be associated with increased risks of tetanus or other infection. In goats, tetanus antitoxin is required to prevent tetanus.**
3. ***Performance***- Cattle may demonstrate reduced feed intake and average daily gain (ADG) for a period of time after castration.
4. ***Physiologic stress***- Castration is considered to be one of the most stressful experiences for livestock. Regardless of the means of castration, cortisol concentrations are increased following the procedure; however, onset, magnitude, and duration may vary with the procedure used. Surgical castration appears to produce the most substantial rise in plasma cortisol concentration. Application of the Burdizzo clamp may also be associated with a similar, rapid rise in cortisol concentration due to the barrage of afferent neural impulses during and after crushing of the spermatic cord and scrotal nerves. Therefore the administration of xylazine and local anaesthesia is required to prevent increased levels of cortisol in the calf.
5. ***Pain***- Acute pain- All physical methods of castration cause pain.Animals exhibit pain responses during and after castration; these responses include struggling, kicking the hind legs, tail swishing, foot stamping, head turning, restlessness, stilted gait, reduced activity, increased recumbency, abnormal standing posture, reduced interest in dams and each other and reduced grazing and feed intake. Pain associated with the surgical and Burdizzo

clamp methods is relatively immediate, whereas pain resulting from elastrator ring/band placement is delayed due to interruption of the blood supply by the band/ring. Burdizzo castration also causes a more severe inflammatory response than band castration. These procedures can last up to 4 hrs without pain mitigation.

Client education:

1. Provide a clean, dry environment for calves after castration.
2. Inspect the cattle closely for two weeks after castration. With latex bands, the scrotum should drop off within seven weeks after castration.
3. Look for swelling, signs of infection, tetanus and abnormal gait.
4. Treat wounds as needed.
5. Get professional help when calves show swelling, severe pain or infection.