**Important Considerations**

Surgery should be done quickly as prolonged sedation results increased anaesthetic problem and difficult recovery.

**Equipment**

* Rope, halter,
* Drugs: Tetanus antitoxin, lidocaine, xylazine, procaine penicillin G, butorphanol, ketamine, Valium
* Needles, syringes
* Sterile gloves
* Gauze
* Scalpel Blades & handle
* Emasculator/ Burdizzo
* Alcohol
* Chlorohexidine
* Clean water
* Suture material
* Haemostats
* Surgical scissors
* IV catheters
* Thumb forceps

**Examine Patient**

* Physical exam should be done prior to procedure including a reproductive tract examination. The reproductive exam is done to ensure that both testicles are present within the scrotal sac and the patient is not a cryptorchid or has an inguinal hernia.
* Determine whether castration is done standing or recumbent based on the temperament of the patient.
* Standing horse use both chemical & physical restraint & regional anaesthesia e.g. acepromazine, xylazine hydrochloride, butorphanol tartrate
* Tetanus prophylaxis should be given
* Procaine penicillin as prophylaxis @ 20mg/kg IM

**Anaesthetize Patient**

1. Administer sedation and analgesia e.g. detomidine hydrochloride/ xylazine (0.3-0.5 mg/kg) and butorphanol (0.01-0.05mg/kg)
2. Wait for sedation to take effect that is the head below the withers
3. Induce with ketamine & Valium
4. Monitor and place a towel over the patient’s eyes if recumbent
5. Ensure the patient is fully relaxed before continuing
6. In recumbency, the upper leg is tied away from the surgeon placing a noose around the pastern, figure eight at the hock twice ending at the pastern & then a half hitch at the pastern

**Scrub the scrotum**

* Orient yourself safely between the legs of the patient to ensure that you are safe if the patient moves.
* Scrub the scrotal area until clean with sponge and water
* Rinse with clean water and antiseptic using gauze

**Local Anaesthetic & Anti-inflammatory**

* Inject spermatic cord of each testis with 10-15mls of lidocaine/ mepivacaine
* Or a larger volume can be injected in the center of each testis
* Administer Anti-inflammatory drug e.g. phenylbutazone @ 2.2- 4.4mg/kg or Flunixin meglumine @1mg/kg IV



