

SOP No:	ATT 03
SUBJECT:	Caudal Epidural Analgesia/Anaesthesia in Cattle
POLICY:	This procedure may only be performed by, or under the supervision of, an operator skilled in the technique
PRECAUTIONS:	<p>Effective animal restraint is important for an accurate injection and production of analgesia/anaesthesia. Aseptic techniques should be followed to avoid introduction of pathogens into the epidural space.</p> <p>In adult cattle an 1½ inch long needle is often required. Thick skinned animals may require an 18 gauge needle. Needle size and length may be reduced in smaller stock.</p> <p>Avoid injecting too much lignocaine as this may result in temporary paresis of the hind limbs. It may be preferable to inject 50% of the calculated dose, wait for a clinical effect and administer the remainder of the dose, if required.</p> <p>After the procedure it may be advisable to keep animals away from hazards such as uneven ground, hill sides, and pools of water until there is no longer any effect of the lignocaine.</p>
EQUIPMENT:	<p>Lignocaine 2% solution 18 to 20 gauge by 1 to 1½ inch needles (either hypodermic or spinal needles may be used) 3 to 10 mL syringes Alcohol swabs (or other surgical preparation solution) Iodine swabs (or other surgical preparation solution) Animal Clippers</p>
PROCEDURE:	<p>Anatomic site: The procedure is performed near the base of the tail at a proximal intercoccygeal space. To identify this space, the tail is moved up and down while palpating the dorsal aspect of the tail to identify a movable intervertebral articulation caudal to the sacrum. The anatomic site is clipped and prepared using an aseptic technique.</p> <p>The needle is inserted in a caudal to cranial direction on the dorsal midline. The angle of insertion should be approximately 45° caudal to the vertical axis (varies with tail position). The insertion is continued to a depth that penetrates the subdural space. A ‘popping’ sensation (not always detected) may be felt as the needle penetrates the dura. To assess if the needle is in the correct location a drop of anaesthetic is placed on the bulb of the needle. If the needle is in the epidural space the drop of anaesthetic may be rapidly sucked into the space and the rest of the dose is injected.</p> <p>When correctly located the syringe is attached to the needle and approximately 50% of the lignocaine is injected (approximate dose rate 1 mL per 100 kg body weight). The effect generally occurs in 5 to 10 minutes and may last up to 1 to 1½ hours. If necessary, the remainder of the dose may be administered to achieve the analgesic / anaesthetic effect.</p>
RECOMMENDATIONS:	See <i>Precautions</i> for post-procedure precautions.

DATE APPROVED: **April 2009**

REVISED:

REFERENCES

1. **Hanie E.A. 2006. Large Animal Clinical Procedures for Veterinary Technicians. Elsevier Mosby. 337 - 339**