

- SOP No:** ATT 052
- SUBJECT:** Bronchoalveolar lavage in horses
- POLICY:** This procedure may only be performed by operators who have been educated in the correct techniques, and under the supervision of their skilled Demonstrator. Leather boots and clean overalls must be worn.
- PRECAUTIONS:** The horse will be placed in a crush and will be suitably restrained by a skilled handler. A nose twitch would be used if additional restraint is required. The person performing the procedure must wear surgical gloves.
- EQUIPMENT:** Halter & lead
Twitch
Crush
Lignocaine 2%
Detomidine 10 mg/ml
Butorphanol 10 mg/ml
21 Gauge Needles
60 ml syringes
2.5 ml syringes
5 ml syringe
10 ml syringe
Alcohol Swabs
Equine Bronchoalveolar lavage (BAL) cuffed tube (Cook or MILA)
Sterile lubricant
Warmed Sterile Saline
- PROCEDURE:**
1. The horse is restrained in a crush with both the handler and the operator standing on the same side of the horse with the handler at the level of the shoulder and the operator just in front of the handler, level with the horse's nose (preferably the left hand side).
 2. The horse is sedated with 0.02-0.04 mg/kg of Detomidine + 0.02-0.05 mg/kg of Butorphanol. If additional restraint is required a nose twitch may be applied.
 3. The horse's nostrils are gently wiped cleaned with a damp gauze swab.
 4. The BAL tube tip is lubricated with a small volume of sterile lubricant and is then passed up the horse's nose via the ventral meatus. The BAL tube is introduced into the horse's trachea by extending the horse's head. When the tube reaches the carina, 5 mls of 2% lignocaine followed by 10 ml of air is injected into the BAL tube to minimize coughing and discomfort. Additional 5 ml aliquots of local anaesthetic may be used if required.
 5. The BAL tube is advanced gently until it can go no further and is wedged in place by inflating the cuff with 5 ml of air.

6. 200-250 ml of warmed saline is injected through the BAL tube using 60 ml syringes. The sample is then gently aspirated to retrieve saline containing surfactant. When no more fluid can be easily retrieved a second 200-250 ml aliquot of saline is injected and then aspirated.
7. When a suitable sample has been retrieved, the cuff is deflated and the BAL tube is gently removed from the airway.

RECOMMENDATIONS:

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REVISED:

REFERENCES:

1. Rose, R.J. and Hodgson, D.R. Manual of Equine Practice. pp 193-194. Second Edition. W.B. Saunders. Philadelphia. 2000.