

THE UNIVERSITY OF QUEENSLAND  
STANDARD OPERATING PROCEDURES  
LARGE ANIMAL TEACHING

**SOP No:** ATT 054

**SUBJECT:** Upper Airway Endoscopy 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.

**EQUIPMENT:** Halter & lead  
Twitch  
Crush  
Xylazine 100 mg/ml  
Butorphanol 10 mg/ml  
21 Gauge Needles  
2.5 ml syringes  
Alcohol Swabs  
1.5 metre Videoendoscope with Monitor and Light Source  
Sterile lubricant  
Gauze Swabs

**PROCEDURE:**

1. The horse is sedated with 0.2-0.5 mg/kg of Xylazine  $\pm$  0.02-0.05 mg/kg of Butorphanol. If additional restraint is required a nose twitch may be applied.
2. The horse's nostrils are gently wiped cleaned with a damp gauze swab.
3. Two operators are involved in the procedure. One operator is responsible for passing the endoscope and the other operator is responsible for "driving" the endoscope (using the controls at the head of the endoscope). Both operators stand on the same side of the horse, not directly in front. In addition, a skilled handler will be present, also standing to the side of the horse at the level of the shoulder.
3. The endoscope tip is lubricated with a small volume of sterile lubricant and is then passed up the horse's nose via the ventral meatus. The endoscope will be slowly advanced up into the nasopharynx of the horse and all structures of the nasal passages, pharynx and larynx are examined. If necessary, the endoscope will also be passed into the trachea to examine the large airways.
4. For examination of the guttural pouches, a guide wire is passed through the biopsy channel of the endoscope into the opening of a guttural pouch (on the same side as the nostril of entry). The endoscope is rotated so that the guide wire opens the guttural pouch opening and the endoscope is passed into the guttural pouch. Once inside the guttural pouch the guide wire is retracted.

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**5. When the examination is completed on one side the endoscope is gently removed from the upper airway and the procedure is repeated on the other side.**

**RECOMMENDATIONS:**

**DATE ISSUED: 24.06.2009**

**REVISED:**

**REFERENCES:**

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