## NTUAS UPPER AIRWAY EXAM SCORING SHEET

Guide for veterinarians from NTUAS Study Group

NOTE: A full upper airway examination is always recommended and should evaluate the narestongue, hard palate, soft palate, tonsils, pharynx (laterally and dorsally), epiglottis, hyoepiglottis and valleculae, cuneiform and corniculate processes, piriform recesses, laryngeal mucosa, vestibular and vocal folds, ventricles, immediate infraglottic lumen. Presence of phlegm, pharyngeal gag, laryngeal sensitivity and laryngeal function should also assessed. Although anatomically not part of the upper airway, it is useful to include the trachea, mainstem bronchi and choanae. The nasal cavity, choanae, nasopharynx and soft palate thickness can be evaluated with CT using a slung maxilla positioning.

## Only the variables that significantly correlated with clinical signs of NTUAS are included in the NTUAS score.

NORMAL or MILD	High roof to the pharynx, can see esophageal aditus, or dorsal pharynx may extend down to, but not covering, dorsal commissure of glottis.	0
MODERATE MARKED	Dorsal pharynx displaced ventrally, covering part of the corniculate processes.  Dorsal pharynx displaced ventrally, cannot see the corniculate processes at all. May be touching the cuneiform processes.	3 6
NORMAL or MILD	No wrinkles or some wrinkled mucosa, but deep piriform recesses (PR), no redundant laryngeal mucosa covering dorsal commissure of glottis. Can see corniculates and dorsal commissure clearly.	0
MODERATE	Excess (with folds or wrinkles) or swollen mucosa in the piriform recesses, <b>but they are still recessed</b> . Dorsal commissure of glottis and corniculates may be partially covered with mucosal 'scarf'.	3
MARKED	Piriform recesses completely or almost completely obliterated with excessive folds or edematous mucosa. Mucosa may protrude out of the piriform recesses. Corniculates may be covered with excess mucosa. Redundant mucosa may be sucked into the	6
NORMAL or MILD	Wide or standing upright, may tilt inwards slightly	0
MODERATE	Medially displaced, almost but not <i>quite</i> touching	3
MARKED	Touching, overlapping or medially flattened	5
NORMAL	Can see the vocal folds their entire length, and there is a deep cleft entrance to the ventricles immediately rostral to the vocal folds.	0
SUB-EFFACED	Edematous ventricular mucosa can be seen sitting within the ventricles, but can still see ALL the vocal folds.	1
EFFACED	Edematous mucosa is bulging to the vocal folds. The ventral aspect of the ventricles may be touching but can still see most of vocal folds.	2
PARTIALLY EVERTED	Most of vocal folds are obscured by everting/bulging mucosal sacs, which are touching and becoming plump. Can see less than 50% of vocal folds dorsally.	3
FULLY EVERTED	Mucosa is ballooning out into the rima glottidis, completely obscuring vocal folds and occupying the ventral rima glottidis.  Everted mucosal sacs may overlap each other.	5
NORMAL	O shape, may be a slight V shape	0
KEYHOLE	Significantly narrowed lumen, especially ventrally, similar to a keyhole or Y shape	3
	MODERATE MARKED  NORMAL OF MILD  MODERATE  MARKED  NORMAL OF MILD  MODERATE  MARKED  NORMAL  SUB-EFFACED  EFFACED  PARTIALLY EVERTED  NORMAL	MODERATE Dorsal pharynx displaced ventrally, covering part of the corniculate processes.  MARKED Dorsal pharynx displaced ventrally, cannot see the corniculate processes at all. May be touching the cuneiform processes.  NORMAL or MILD Commissure of glottis. Can see corniculates and dorsal commissure clearly.  MODERATE Excess (with folds or wrinkles) or swollen mucosa in the piriform recesses, but they are still recessed Dorsal commissure of glottis and corniculates may be partially covered with mucosal 'scarf'.  Piriform recesses completely or almost completely obliterated with excessive folds or edematous mucosa. Mucosa may protrude out of the piriform recesses. Corniculates may be covered with excess mucosa. Redundant mucosa may be sucked into the airmax  NORMAL or MILD Wide or standing upright, may tilt inwards slightly  MODERATE Medially displaced, almost but not quite touching  MARKED Touching, overlapping or medially flattened  NORMAL Can see the vocal folds their entire length, and there is a deep cleft entrance to the ventricles immediately rostral to the vocal folds.  SUB-EFFACED Edematous wentricular mucosa can be seen sitting within the ventricles, but can still see ALL the vocal folds.  Edematous mucosa is bulging to the vocal folds. The ventral aspect of the ventricles may be touching but can still see most of vocal folds.  PARTIALLY EVERTED Most of vocal folds are obscured by everting/bulging mucosal sacs, which are touching and becoming plump. Can see less than 50% of vocal folds dorsally.  MUCOSA is ballooning out into the rima glottlids, completely obscuring vocal folds and occupying the ventral rima glottlidis. Everted mucosal sacs may overlap each other.  NORMAL O shape, may be a slight V shape

Examination date: 5/26/2016

Other findings (not associated with NTUAS): none