

1 Additional file 1: Table S1

2 Modified clinical staging of RAO in horses according to Tilley et al [18]

Parameter	0	1	2	3	4	5
Clinical assessment^a						
<i>Cough score</i>	None	Coughs on specific times of day (feeding/exercising/making beds)	Frequent cough with periods of no coughing	Very frequent cough		
<i>Nostril flare</i>	None	Flares during inspiration (returns to normal at end inspiration)	Flares in inspiration and exhalation (slight movement can still be seen)	Flares in inspiration and expiration (no movement can be seen)		
<i>Abdominal lift</i>	None	Slight flattening of ventral flank	Obvious abdominal flattening and "heave line" extending no more than half way between cubital joint and <i>tuber coxae</i>	Obvious abdominal lift and "heave line" extending beyond halfway between cubital joint and <i>tuber coxae</i>		
Airway endoscopy^b						
<i>Mucus accumulation</i>	None, clean	Little, multiple small blobs	Moderate, larger blobs	Marked, confluent or stream-forming	Large, pool-forming	Extreme, profuse amounts
<i>Mucus color</i>	None, clean	Colorless	White	Thick White	Yellow	Thick Yellow
<i>Mucus localization and stickiness</i>	None, clean	1/2 Ventral	2/3 Lateral	3/4 Dorsal	Threading	Threading
<i>Mucus apparent viscosity</i>	None, clean	Very fluid	Fluid	Intermediate	Viscous	Very viscous

3 ^a Final Clinical Score (CS): **0** (CS final score < 2), **1** (2 ≤ CS final score ≤ 4) **2** (5 ≤ CS final score ≤ 6) **3** (7 ≤ CS
4 final score ≤ 9)

5 ^b Final airway Endoscopy Score: **0** (ES final score < 8.5) **1** (8.5 ≤ ES final score ≤ 12) **2** (12 < ES final score ≤
6 16) **3** (ES final score > 16)

7 **Final RAO Stage:**

8 **Stage 0 – No RAO (Total Score = 0);**

9 **Stage 1 – Mild RAO (1 ≤ Total Score < 2);**

10
11
12

Stage 2 – Moderate RAO (3 ≤ Total Score ≤ 4);

Stage 3 – Severe RAO (5 ≤ Total Score = 6)