

Horse ID	PaO ₂ (mmHg)	PaCO ₂ (mmHg)	AaD O ₂ (mmHg)
1	96	46.1	2.9
2	79.1	40.9	25
3	84.3	39.9	20.8
4	112	38.6	-5.6
5	67	54.2	23.8
6	80.9	44.1	20
7	84.5	40.5	20
8	104	40.4	0.6
9	82.5	45.2	17.4
10	101	41.8	2.2
11	105	43.4	-3.4
12	102	38.5	4.5
13	103	39.7	2.3
14	94.1	44.6	6.3
15	105	39.3	0.7
16	104	42.8	-1.8
17	105	42.2	-2.2
18	92.2	42.6	10.2
19	99.4	43.1	2.5
20	99.6	43.8	1.6
21	105	45.1	-5.1
22	97.5	43.8	3.7
23	94.9	43.2	6.9
24	88.2	49.1	7.7
25	95.5	45.0	4.5
26	101	41.8	2.2

Additional File 5 (PDF): Arterial blood gas analysis. Results are sorted by ID as horses were presented to the clinic. The arterial partial pressure of O₂ and CO₂ were measured and the alveolar-arterial oxygen gradient was calculated in all horses. The mean group values for PaO₂ were 101.79 mmHg ($\pm$ 5.93) for healthy horses, 103.15 mmHg ($\pm$ 2.55) for miEA, 97.21 mmHg ($\pm$ 6.23) for modEA, and 82.75 mmHg ($\pm$ 10.03) for sEA. The group means for PaCO₂ were 42.49 mmHg ($\pm$ 2.43) for healthy horses, 42.27 mmHg ($\pm$ 1.84) for miEA, 43.44 mmHg ($\pm$ 3.54) for modEA, and 43.80 mmHg ($\pm$ 4.98) for sEA. The group means for AaD O₂ were 1.2 mmHg ($\pm$ 4.4) for healthy horses, -0.4 mmHg ($\pm$ 2.8) for miEA, 4.3 mmHg ($\pm$ 4.1) for modEA and 18.5 mmHg ($\pm$ 7.6) for sEA. (Abbr.: EA=equine asthma, miEA=mild EA, modEA=moderate EA, sEA=severe EA, PaO₂=arterial oxygen partial pressure, PaCO₂=arterial carbon dioxide partial pressure, AaDO₂=Alveolar-arterial oxygen gradient)