Sustainable development in equine anaesthesia

Callum Haseler[1], Ellie West[2], Luís Filipe Louro[3], Ilaria Petruccione[1], Kate White[4], and J M Tom Pierce[5]

[1]Rossdales Equine Hospital and Diagnostic Centre
[2]Davies Veterinary Specialists Limited
[3]Chestergates Veterinary Specialists
[4]University of Nottingham
[5]Southampton University Hospitals NHS Trust

October 24, 2022

Hosted file

`Main_document-10.docx` available at https://authorea.com/users/517009/articles/591671-sustainable-development-in-equine-anaesthesia

Hosted file

`Tables.docx` available at https://authorea.com/users/517009/articles/591671-sustainable-development-in-equine-anaesthesia

First 12-20 minutes:
Deliver 8-12 L/min in order to ensure the minimum recommended inspired oxygen and achieve the desired depth of anaesthesia.

Maintenance phase:
The minimum FGF can equal the horse's oxygen consumption (10 x body weight (kg)$^{0.75}$/min), or approximately 2.2 ml/kg/min.

Example for 500 kg horse:
FGF = 10 L/min for first 12-20 minutes, followed by FGF of approximately 1.1 L/min (2.2 x 500 = 1,100, or 10 x 5003/4 = 1,057). The authors would typically use a FGF of 2 L/min to account for any minor leaks in the circuit.

Recovery phase:
8-12 L/min in order to facilitate recovery from anaesthesia