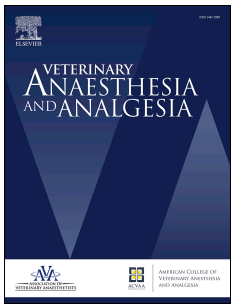
Accepted Manuscript



On accuracy and precision of flowmeters used for oxygen therapy in a veterinary teaching hospital

Morgan L. Murphy, David S. Hodgson, Nora M. Bello

PII: S1467-2987(17)30373-2

DOI: 10.1016/j.vaa.2017.09.040

Reference: VAA 210

To appear in: *Veterinary Anaesthesia and Analgesia*

Received Date: 18 May 2017

Revised Date: 10 September 2017

Accepted Date: 11 September 2017

Please cite this article as: Murphy ML, Hodgson DS, Bello NM, On accuracy and precision of flowmeters used for oxygen therapy in a veterinary teaching hospital, *Veterinary Anaesthesia and Analgesia* (2017), doi: 10.1016/j.vaa.2017.09.040.

RESEARCH PAPER

Running head (Author): *ML Murphy et al.*

Running head (short title): Oxygen flowmeter accuracy and precision

On accuracy and precision of flowmeters used for oxygen therapy in a veterinary teaching hospital

Morgan L Murphy[a], David S Hodgson[a] & Nora M Bello[b]

[a]Department of Clinical Sciences, College of Veterinary Medicine, Kansas State University, Manhattan, KS, USA

[b]Department of Statistics, College of Arts and Sciences, Kansas State University, Manhattan, KS, USA

Correspondence: Morgan Murphy, Department of Clinical Sciences, College of Veterinary Medicine, Kansas State University, 1800 Denison Ave, Manhattan, KS 66506-5701, USA. E-mail: mlm9536@vet.k-state.edu

Abstract

Objective To determine the accuracy and precision of flowmeters used for oxygen therapy in a veterinary teaching hospital.

Study design An observational study.

Methods A total of 50 flowmeters used for oxygen therapy were evaluated using Defender 530 gas flow analyzers to measure flow. For each flowmeter, a minimum of seven flow settings were tested in random order and in triplicate. Flow measured at ambient conditions was converted to