

Updated NIH Laboratory Animal Care and Use Guidelines 1 Nov 11

The NIH Guide for Care and Use of Laboratory Animals is used as a guideline for all aspects of research animal handling in universities, research hospitals and other laboratories where animal research is conducted. It is the definitive guide for the care, feeding and use of laboratory animals. It was first published in 1963, and until this year (2011), its most recent edition was published in 1996.

This year, the 8th edition was released (http://oacu.od.nih.gov/regs/guide/guide_2011.pdf). Among other changes, it addresses more fully the care of animals during surgery and anesthesia. Pertinent excerpts that have been added to the 8th edition of the guideline include the following:

- “For anesthesia delivery, the use of precision vaporizers and monitoring equipment, e.g., *pulse oximeter for determining arterial blood oxygen saturation levels, increases the safety and choices of anesthetic agents for use in rodents and other small species.*” NIH Guide for Care and Use of Laboratory Animals, 8th ed., Pg 122 Paragraph 5, 2011.
- “Careful monitoring and timely attention to problems increase the likelihood of a successful surgical outcome (Kuhlman et al. 2008). *Monitoring includes routine evaluation and recording of anesthetic depth and physiologic functions and conditions, such as body temperature, cardiac and respiratory rates and pattern (Flegal et al. 2009), and blood pressure (Kuhlman et al. 2008)...*” NIH Guide for Care and Use of Laboratory Animals, 8th ed., Pg 119 Paragraph 1, 2011.

It is interesting that arterial blood oxygen saturation has been added to the guideline because until the introduction of the STARR Life Sciences® MouseOx® in 2006, this measurement was not available for use on the most widely used animal in clinical and scientific research – the mouse. With the release of the MouseOx® Plus in 2011, researchers can obtain oxygen saturation and other physiologic vital signs from one easy-to-use, non-invasive, clip-on sensor.