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## Pharmacokinetics and Pharmacodynamics in Animal Anesthesiology

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### Message from the Guest Editor

Anesthesia is the state of immobilization and elimination of pain. The ideal anesthetic preserves cardiac output and other physiologic parameters, provides intraoperative analgesia that extends to the postoperative period, and is reversible and safe for the patient, operator, and environment. A variety of anesthetic agents are available for experimental surgery and may be administered parenterally or by inhalation.

Pharmacokinetics explains what happens to a drug in the body, whereas pharmacodynamics describes the actions produced by the drug in the body. Therefore, the effects of a drug result from a combination of its pharmacokinetic and pharmacodynamic characteristics in the individual. Wherever possible, drug administration should be based on a measured patient response, which will incorporate both of these aspects of its pharmacology.

Often, there are few registered drugs for minor or exotic species, which causes the use of different drugs under exceptional prescription by adapting or extrapolating the recommended dosage from major species. This extrapolation can cause potential overdosing or underdosing, with the risks of toxicity or clinical unsuccess.



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## Message from the Editor-in-Chief

*Animals* is an on-line open access journal that was first published in 2011. *Animals* adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. *Animals* is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 3.0 (2022, ranks 12 /62 (Q1) in ‘Agriculture, Dairy & Animal Science’; 13/143 (Q1) in ‘Veterinary Sciences’), 5-Year Impact Factor: 3.2.

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