

A Review on Animal Utilization in Toxicology and Safety Assessment and its Ethical Guidelines

Ms. Nikita Laxman Pawar and Miss. Rutuja U Shelke

Yashodeep Institute of Pharmacy (B. Pharm), Pimpalgaon Pandhari, Chhatrapati Sambhaji Nagar, India

Abstract: *Animal studies play a crucial role in evaluating the safety and toxicity of pharmaceuticals, chemicals, and consumer products. In toxicology and safety assessment, animal models are used to predict potential adverse effects in humans, ensuring the protection of public health. This topic explores the use of animal studies in identifying toxicological profiles, assessing risk, and informing regulatory decisions.*

Animal models have been extensively used in toxicology and safety assessment to evaluate the potential risks of chemicals, drugs, and other substances on human health and the environment. The use of animals in toxicology studies provides valuable information on the absorption, distribution, metabolism, and excretion (ADME) of substances, as well as their potential toxicity and carcinogenicity.

Importance of Animal Models

1. Predicting human toxicity: Animal studies help predict potential human toxicity and identify potential health risks.

2. Evaluating safety: Animal studies evaluate the safety of substances for human use and environmental release.

3. Developing new drugs: Animal models are used to develop and test new drugs, vaccines, and therapies.

Keywords: Toxicology safety assessment, animal studies, in vivo models, human health risk, regulatory frameworks.