

Primary References for Exam Questions

The following is a list of references that are used to generate questions on the Phase II examination.

Riviere J, Papich M (Ed): Veterinary Pharmacology and Therapeutics; 10th edition, 2018, Wiley Blackwell

Boothe DM (ed) Small Animal Clinical Pharmacology and Therapeutics, 2nd ed 2012, Elsevier

Riviere JE. Comparative Pharmacokinetics: Principles, Techniques and Applications (2nd edition); 2011; John Wiley & Sons, Ltd.

Ettinger SJ, Feldman EC (Ed's): Textbook of Veterinary Internal Medicine, 8th ed, 2017, Elsevier Inc.

Smith BP (Ed): Large Animal Internal Medicine: diseases of horses, cattle, sheep, and goats. 5th ed (2014); Elsevier

Cole C, Bentz, B, Maxwell L (eds) Equine Pharmacology 2014, Wiley Blackwell.

Southwood, Robin, Fleming, Virginia H., Huckaby, Gary, Teton, and Spruill, William J. Concepts in Clinical Pharmacokinetics 7th ed. 2018 American Society of Health-System Pharmacists.

Gabrielsson JL, Weiner D : Pharmacokinetic and Pharmacodynamic Data Analysis: Concepts and Applications, 5th ed, 2016

Negrusz and Cooper (Ed) Clarke's Analytical Forensic Toxicology 2nd ed.

Karp B et al. 2017 National Antimicrobial Resistance Monitoring System: Two Decades of Advancing Public Health Through Integrated Surveillance of Antimicrobial Resistance. Foodborne Pathog Dis Oct, 14 (10); 545-557. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5650714/pdf/fpd.2017.2283>.

Clinical and Laboratory Standards Institute VET09 Understanding Susceptibility Test Data as a Component of Antimicrobial Stewardship in Veterinary Settings 1st ed. Available through the CLSI.org website

Clinical and Laboratory Standards Institute VET08 Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated from Animals 4th ed. Available through the CLSI.org website.

Food Animal Residue Avoidance Databank at <http://www.farad.org/>

Animal Drug Approvals and Freedom of Information Summaries

Strongly Recommended Articles:

Lees, P & Toutain, PL. 2012. The role of Pharmacokinetics in veterinary drug residues. Drug Testing and Analysis 4(1):34-39.

Last revised: December 2021

Toutain, PL, Ferran, A and Bousquet-Melou A. 2010. Species differences in pharmacokinetics and pharmacodynamics. Handbook of Experimental Pharmacology 199: 19-48.

Toutain, PL & Lees, P. 2004. Integration and modelling of pharmacokinetic and pharmacodynamic data to optimize dosage regimen in veterinary medicine. JVPT 27(6): 467-77. Review.

Toutain PL & Bousquet-Melou, A. 2004. Bioavailability and its assessment. JVPT 27(6): 455-66. Review.

Toutain PL & Bousquet-Melou, A. 2004. Volume of distribution. JVPT 27(6): 441-53. Review.

Toutain PL & Bousquet-Melou, A. 2004. Plasma terminal half-life. JVPT 27(6): 427-39. Review.

Toutain PL & Bousquet-Melou, A. 2004. Plasma clearance. JVPT 27(6): 415-25. Review.

ACVIM Consensus Statements 2018-2021.

<https://www.ncbi.nlm.nih.gov/pubmed/?term=acvim+consensus>

For consultation only as needed for clarification:

JVPT-USP Monographs. (Access via the "Resources" tab at the [American Academy of Veterinary](#)

[Pharmacology and Therapeutics \(aavpt.org\)](#))

Journal of Veterinary Pharmacology and Therapeutics

Candidates should be familiar with the labels and Freedom of Information Summaries for approved veterinary drugs, especially recently approved drugs within the last 5 years. There is a link to the Regulatory References on the ACVCP website on the Phase II examination page. Information about approved veterinary drugs can be found at animaldrugs@fda.hhs.gov at <https://www.fda.gov/animal-veterinary/approved-animal-drug-products-green-book/recent-animal-and-recent-animal-drug-approvals>

drug-approvals

The candidate should keep abreast on new peer-reviewed articles related to pharmacology and clinical pharmacology by reading articles from the Journal of Veterinary Pharmacology and Therapeutics within the previous 5 years.

Secondary References for Supplemental Information

Last revised: December 2021

Lees P, Pelligand L, Giraud E, Toutain PL. A history of antimicrobial drugs in animals: Evolution and revolution. *J Vet Pharmacol Ther.* 2021 Mar;44(2):137-171. doi: 10.1111/jvp.12895. Epub 2020 Jul 29. PMID: 32725687

Toutain PL, Bousquet-Melou A. Free drug fraction vs free drug concentration: a matter of frequent confusion. *J Vet Pharmacol Ther.* 2002 Dec;25(6):460-3

Baggot JD. J Pharmacokinetic terms: symbols and units. *Vet Pharmacol Ther.* 2001 Apr;24(2):81-2. doi: 10.1046/j.1365-2885.2001.00340.x. PMID: 11442780

Martinez MN, Court MH, Fink-Gremmels J, Mealey KL. J Population variability in animal health: Influence on dose-exposure-response relationships: Part I: Drug metabolism and transporter systems. *Vet Pharmacol Ther.* 2018 Aug;41(4):E57-E67. doi: 10.1111/jvp.12670. Epub 2018 Jun 19. PMID: 29917248

Martinez MN, Antonovic L, Court M, Dacasto M, Fink-Gremmels J, Kukanich B, Locuson C, Mealey K, Myers MJ, Trepanier L. Challenges in exploring the cytochrome P450 system as a source of variation in canine drug pharmacokinetics. *Drug Metab Rev.* 2013 May;45(2):218-30. doi: 10.3109/03602532.2013.765445. Epub 2013 Feb 25. PMID: 23432217

Martinez MN, Gehring R, Mochel JP, Pade D, Pelligand L. Population variability in animal health: Influence on dose-exposure-response relationships: Part II: Modelling and simulation. *J Vet Pharmacol Ther.* 2018 Aug;41(4): E68-E76. doi: 10.1111/jvp.12666. Epub 2018 May 28. PMID: 29806231

Nuzzo, R. Scientific method: Statistical errors. *Nature* 506, 150–152 (2014). <https://doi.org/10.1038/>

Snyder LR and Kirkland JJ. *Introduction to Modern Liquid Chromatography* third Edition. John Wiley and Sons, New York, 2009.

Aviva Petrie, Paul Watson *Statistics for Veterinary and Animal Science*, 3rd Edition ISBN: 978-0-470-67075-0 May 2013 Wiley-Blackwell

Martinez M et al . Challenges in exploring the cytochrome P450 system as a source of variation in canine drug pharmacokinetics. *Drug Metabolism Review*, *Drug Metab Rev*, Early Online: 1–13, 2013.

Trepanier L. Cytochrome P450 and its role in veterinary drug interactions. *Vet Clin Small Anim* 36(2006) 975-985.

Clinical and Laboratory Standards Institute VET 02: Development of Quality Control Ranges. Breakpoints, and Interpretive Categories for Antimicrobial Agents Used in Veterinary Medicine, Chapter 5 Process of Establishing Breakpoints, 4 th edition 2021

Rowland M, Tozer TN: *Clinical Pharmacokinetics: Concepts and Applications*, 2010, 4th edition, Lippincott, Williams and Wilkins

Veterinary Epidemiologic Research Hardcover Ian Dohoo, Wayne Martin, Henrik Stryhn January 1, 2009 ISBN-10 0919013600

Last revised: December 2021

Bermingham E, Davis JL, Whittam T. Study design synopsis: Designing and performing pharmacokinetic studies for systemically administered drugs in horses. *Equine Vet J.* 2020 Sep;52(5):643-650. doi: 10.1111/evj.13312.PMID: 32748990

Food animal specific toxicology: *Veterinary Clinics of North America Food Animal Practice* 27(2) July 2011

Ramesh Gupta, ed. *Veterinary Toxicology*, 2nd ed. 2012 ISBN 978-0-12-385926-6

Journals within the past 5 years (therapeutics-related articles)

Journal of Veterinary Internal Medicine

Veterinary Research

Veterinary Microbiology

Equine Veterinary Journal

American Journal of Veterinary Research