

## **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; 10<sup>th</sup> 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 7<sup>th</sup> 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 1<sup>st</sup> 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 4<sup>th</sup> 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](mailto: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**

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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**

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, 2<sup>nd</sup> 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