

ICAAC educational workshop in Washington DC

October 24, 2008, 8:30 am-12:00 noon and 1:00-4.30 pm

48-05 Preclinical Pharmacokinetics and Pharmacodynamics of Anti-infective Agents

8:30	Introduction to PK/PD	H. Derendorf Department of Pharmaceutics, University of Florida, Gainesville, FL
9:00	PK/PD indices	J. Mouton Canisius Wilhelmina Hospital, Nijmegen, The Netherlands
9:30	Protein binding, tissue distribution	U. Theuretzbacher Center for Anti-Infective Agents, Vienna, Austria
10:00	In vitro models	I. Odenholt Departement of Infectious Diseases, Malmö University Hospital, Malmö, Sweden
10:30	Animal models	W.A. Craig Division of Infectious Diseases, University of Wisconsin, Madison, WI
11:00	In vitro resistance	O. Cars Division of Infectious Diseases, University Hospital, Uppsala, Sweden

Convener:

HARTMUT DERENDORF, PhD; Univ. of Florida, Gainesville, FL

JOHAN W. MOUTON, MD, PhD; Canisius Wilhelmina Hosp., Nijmegen, The Netherlands

Faculty:

OTTO CARS, MD, MPH; Uppsala Univ. Hosp., Uppsala, Sweden

WILLIAM A. CRAIG, MD; Univ. of Wisconsin and VA Hosp., Madison, WI.

HARTMUT DERENDORF, PhD; Univ. of Florida, Gainesville, FL

JOHAN W. MOUTON, MD, PhD; Canisius Wilhelmina Hosp., Nijmegen, The Netherlands

INGA M. ODENHOLT SR., MD; Lunds Univ., Malmö, Sweden

URSULA THEURETZBACHER, PhD; Center for Anti-Infective Agents, Vienna, Austria

Objectives:

- Gain insight in pharmacokinetic and pharmacodynamic concepts of antimicrobial efficacy
- Application of in vitro models and animal models in pharmacodynamic research
- The limitations and use of serum and tissue concentrations
- Know how to calculate pharmacokinetic and pharmacodynamic parameters and interpret the results
- Drug resistance in vitro

Intended Audience: Medical microbiologists, infectious diseases specialists, pharmacologists, and others interested

Level: Beginning

Prerequisites: None

48-06 Clinical Relevance of Pharmacokinetics and Pharmacodynamics of Anti-infective Agents

1:00	Clinical applications of PK/PD	J. Mouton Canisius Wilhelmina Hospital, Nijmegen, The Netherlands
1:30	Approach to clinical breakpoints	A.P. MacGowan Bristol Centre for Antimicrobial Research and Evaluation, North Bristol NHS Trust & University of Bristol Department of Medical Microbiology, Southmead Hospital, Westbury-on-Trym, Bristol, UK
2:00	Drug exposure at infection site	M. Mueller Department of Clinical Pharmacology, Vienna University Medical School, Vienna, Austria
2:30	PK/PD of antifungals	D.R. Andes Department of Medicine, University of Wisconsin Medical School, Madison, WI
3:00	Clinical resistance	O. Cars Division of Infectious Diseases, University Hospital, Uppsala, Sweden
3:30	Dosing in specific situations	Paul M. Tulkens Department of Pharmaceutics, Catholic University of Louvain, Brussels, Belgium

Convener:

JOHAN W. MOUTON, MD, PhD; Canisius Wilhelmina Hosp., Nijmegen, The Netherlands

URSULA THEURETZBACHER, PhD; Center for Anti-Infective Agents, Vienna, Austria

Faculty:

DAVID R. ANDES, MD; University of Wisconsin Medical School, Madison, WI

OTTO CARS, MD, MPH; Uppsala Univ. Hosp., Uppsala, Sweden

ALASDAIR P. MACGOWAN, MD; Bristol Ctr. for Antimicrobial Res. and Evaluation, Westbury-on-Trym, UK

MARKUS MUELLER, MD; Vienna University Medical School, Vienna Austria

JOHAN W. MOUTON, MD, PhD; Canisius Wilhelmina Hosp., Nijmegen, The Netherlands

PAUL M. TULKENS, MD, PhD; Catholic University of Louvain, Brussels, Belgium

Objectives:

- Gain insight in the clinical significance of pharmacokinetic and pharmacodynamic modeling of antimicrobials
- Application of preclinical PK/PD into clinical drug development
- PK/PD of antivirals and antifungals
- Assessment of drug exposure at the site of infection
- Clinical drug resistance

Intended Audience: Medical microbiologists, infectious diseases specialists, pharmacologists, and others interested

Level: Intermediate/Advanced

Prerequisites: A basic understanding of PK/PD, e.g. WS 1.

48-07 PK/PD Modeling of Anti-infective Agents

1:00	PK/PD based on kill curves	H. Derendorf Department of Pharmaceutics, University of Florida, Gainesville, FL
1:30	Modeling of PK/PD from Animal Models	W.A. Craig Division of Infectious Diseases, University of Wisconsin, Madison, WI
2:00	Resistance Suppression	G.L. Drusano Albany Medical College, Ordway Res. Inst., Albany, NY
2:30	Population PK/PD modeling	A. Vinks Univ. Cincinnati, OH
3:00	Modeling of anti-infective activity	A. Forrest University of Buffalo, NY, ICPD/Ordway Res. Inst., Albany, NY
3:30	Monte Carlo Simulations	S. Bhavnani ICPD/Ordway Res. Inst., Albany, NY

Convener:

HARTMUT DERENDORF, PhD; Univ. of Florida, Gainesville, FL.

Faculty:

SUJATA M. BHAVNANI, PharmD, MS; ICPD/Ordway Res. Inst., Albany, NY

WILLIAM A. CRAIG, MD; Univ. of Wisconsin and VA Hosp., Madison, WI.

HARTMUT DERENDORF, PhD; Univ. of Florida, Gainesville, FL

GEORGE L. DRUSANO, MD; ICPD/Ordway Res. Inst., Albany, NY

ALAN FORREST, PharmD; ICPD/Ordway Res. Inst., Albany, NY; SUNY, Buffalo, NY

ALEXANDER VINKS, PharmD, PhD; Univ. Cincinnati, OH

Objectives:

- MIC based PK/PD modeling in vitro and in animals
- PK/PD based on kill curves
- Population PK/PD of anti-infective agents
- Monte Carlo Simulations
- Integration of preclinical and clinical PK/PD

Intended Audience: Medical microbiologists, infectious diseases specialists, pharmacologists, and others interested

Level: Advanced

Prerequisites: A basic understanding of PK/PD relationships