

## Article



### European Journal of Clinical Microbiology & Infectious Diseases

Publisher: Springer-Verlag Heidelberg

ISSN: 0934-9723 (Paper) 1435-4373 (Online)

DOI: 10.1007/s10096-004-1228-z

Issue: Online First

#### Review

### Pharmacokinetics/pharmacodynamics of echinocandins

U. Theuretzbacher<sup>1</sup> 

(1) Center for Anti-Infective Agents—Vienna, Eckpergasse 13, 1180 Vienna, Austria

**Published online:** 14 October 2004

**Abstract** The novel class of echinocandins represents a milestone in antifungal drug research that has further expanded our therapeutic options. The favorable pharmacokinetic profile of the echinocandins has been elucidated in animal and human studies. The echinocandins are targeted for once-daily dosing and are not metabolized through the cytochrome P450 enzyme system, and they are generally well tolerated due to lack of mechanism-based toxicity. Little is known, however, about the disposition of these compounds in tissues and body fluids and the relationships between dosage, concentrations in the body, and antifungal efficacy in vivo. Many unanswered questions remain, including the importance of the high protein binding and the concentrations of free antifungal agents at target sites. Although recent attempts have been made to ensure the reproducibility of in vitro tests, the clinical usefulness of these tests is still unreliable and their relevance remains controversial. In vitro activity must be correlated with achievable concentrations at the site of infection. As little is known about the relationship between the pharmacokinetics and the pharmacodynamics of the echinocandins, increased incorporation of these principles in experimental and clinical studies is an important objective that will benefit the treatment and prophylaxis of life-threatening invasive fungal infections in immunocompromised patients.

 **U. Theuretzbacher**

**Email:** [u.theuretzbacher@aon.at](mailto:u.theuretzbacher@aon.at)

**Phone:** +43-1-4797024

**Fax:** +43-1-4700898

*The references of this article are secured to subscribers.*

[Previous article](#)

[Next article](#)

#### Linking Options

##### You are not logged in.

The full text of this article is secured to subscribers. You or your institution may be subscribed to this publication.

If you are not subscribed, this publisher offers secure article or subscription sales from this site.

Please select 'Continue' to view your options for obtaining the full text of this article.

[Continue](#)