
Poster

[P27-2] P27-2: Anti-infective drugs (7): Antifungals

Chair: Yoh Takekuma, Japan

Wed. Sep 27, 2017 12:30 PM - 1:30 PM Annex Hall (1F)

(Wed. Sep 27, 2017 12:30 PM - 1:30 PM Annex Hall)

[P27-2-2] Individualized medication of voriconazole: a practice guideline of the division of therapeutic drug monitoring, Chinese Pharmacological Society

Suodi Zhai¹, Ken Chen², Xianglin Zhang³, Xiaoyan Ke⁴, Guanhua Du⁵, Kehu Yang⁶ (1.Peking University Third Hospital, 2.Peking University Third Hospital, 3.China-Japan Friendship Hospital, 4.Peking University Third Hospital, 5.Institute of Materia Medica and Chinese Academy of Medical Sciences, 6.Evidence-Based Medicine Center, Lanzhou University)

Keywords: guidelines, voriconazole, individualized medication

Background

Voriconazole is a second-generation triazole antifungal agent with broad-spectrum activity. Voriconazole presents nonlinear pharmacokinetics (PK) in adults, while drug-drug interactions and cytochrome P450 2C19 polymorphism are of great concern for voriconazole. Thus, voriconazole has a wide inter- and intraindividual variability, and the necessity for individualized medication of voriconazole is widely acknowledged. Our objective was to develop an evidence-based practice guideline for individualized medication of voriconazole.

Methods

We followed the latest guideline definition from the Institute of Medicine and referred to the World Health Organization handbook for guideline development. The guideline was initially registered in the International Practice Guidelines Registry Platform (IPGRP-2015CN001). The guideline is targeted at all healthcare providers, and patients with various conditions who are taking voriconazole comprise the end users of the guideline. Eighteen questions were identified for the guideline through a 3-round Delphi method. Regarding the 18 questions, nine systematic reviews were developed. The quality of evidence and strength of the recommendations were assessed using the GRADE method. The quality of evidence was categorized as high, moderate, low or very low (Letter "A", "B", "C", and "D" was used for them, respectively). For recommendations without any evidence or with in vitro evidence available only, we used the letter "E" to indicate their quality of evidence. In addition, we investigated 126 patients from 9 Chinese hospitals who were taking VORI on their values and preferences towards individualized medication of voriconazole.

Results

Twenty-six recommendations were formulated regarding therapeutic drug monitoring, special groups of patients, drug safety, off-label use, and drug-drug interactions. Of them, twelve were strong recommendations. Most quality of evidence was low, very low, or expert opinions.

Conclusions

We developed an evidence-based practice guideline for individualized medication of voriconazole, which provided recommendations for healthcare providers. The development of the guideline exposed several research gaps to improve the use of VORI.

