Special Issue

Dosing Strategies for Protecting the Vulnerable

Message from the Guest Editors

Many diseases have a disproportional impact on vulnerable patients, including but not limited to the very young and very old, obese patients, critically ill patients, and pregnant women. Paradoxically, their vulnerabilities are also the basis for excluding them from clinical trials. Many drugs are therefore not licensed for use in these patients but, rather, off-label use is often justified by the high unmet medical need. The selection of an appropriate dosing strategy for these patients is one of the main challenges.

Pharmacokinetic/pharmacodynamic (PK/PD) modelling and simulation can be used to characterise the relationship between drug dosing, drug exposure, biomeasures, biomarkers, and clinical outcomes. Furthermore, these models can be applied to identify optimised dosing strategies for vulnerable patients. Although the added value of using PK/PD models is being recognised in various disease areas, an extensive knowledge gap remains. For this Special Issue, we welcome the submission of original research articles and reviews on modelling and simulation strategies for identifying dosing strategies to protect vulnerable patients.

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