EzeCHieL Interoperability: From Blood to Everywhere

heig-vd
Haute Ecole d'Ingénierie et de Gestion du Canton de Vaud

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Point of Care
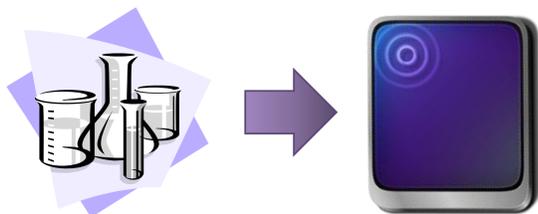
Instead of going through a long and expensive process, the patient can directly interact with a point of care (POC) in order to get his blood drug concentration. The POC can then communicate with EzeCHieL to immediately predict the concentration and suggest a dosage adjustment. As a part of the ISyPeM2 project, a specific POC is currently under development and will be able to support four drugs for which an accurate monitoring will be greatly valuable (Efavirenz, Imatinib, Tacrolimus and Tobramycin).

EzeCHieL Light

A mobile and light version of EzeCHieL can be used anytime, anywhere, by the medical practitioner or directly by the patient, to keep an eye on the current situation; it can then be synchronized with the standard version of EzeCHieL.
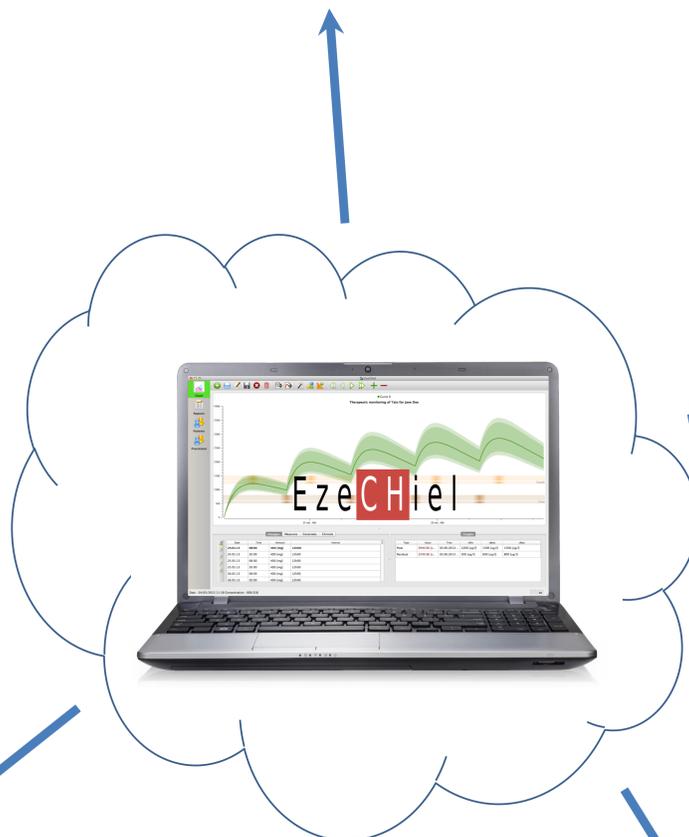
Adaptable Databases

EzeCHieL comes with an encrypted and ready-to-use database, but will also be able to interact with any medical institution database, thanks to the use of a powerful and flexible Health Level Seven (HL7) compliant interface.

HL7 Compliant Interface

For medical practitioners to be able to share clinical information, they must both speak a common language, use the same vocabulary, and have functions to be able to communicate and share medical data. The purpose of this interface is precisely to fill this need, allowing EzeCHieL to interact with a wide range of disparate medical systems. A validation will be conducted with the CHUV infrastructure.

Centralizing Data for the Research

EzeCHieL will interact with a central research database which can be used to accumulate anonymous data; this data could then be used for pharmacokinetics modeling refinement, research purpose and, overtime, the patients well-being.

An Evaluation and Prediction Engine

The goal of EzeCHieL is to support medical practitioners (prescribers, clinical pharmacologists, …) with drug concentration interpretation and to propose potential dosage adjustment to a specific patient. Among other features, EzeCHieL offers:

• Patients and medical practitioners management
• Support for a wide variety of drugs, with multiple types of pharmacokinetic models
• Dosage propositions through multiple reverse engines
• Customized reports generation
• Modular architecture

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