**DDI-PREDICTOR : A NOVEL CLINICAL PHARMACY DECISION-MAKING TOOL FOR DOSE ADAPTATION ?**

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**Introduction**

To date, pharmacists have been limited to advising dose adaptation to physicians in the case drug-drug interactions (DDI), cirrhosis or presence of genetic polymorphism on P450 cytochromes (CYP). “DDI-Predictor” (DDI-P) is a free online application which may help in such cases.

**Study aim:** To describe “DDI-P” use as clinical pharmacy decision-making tool.

*https://www.ddi-predictor.org/*

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**Method**

- Training to use DDI-P for 18 clinical pharmacists
- “DDI-P” computed a ratio of area under the drug-concentration curves (Rₐᵤₐ) by comparison to a standard $R_{AUC}$
- Calcul of dose adaptation
- Pharmaceutical interventions (PI) were performed if $0.5 \leq R_{AUC}$ (induction) or $R_{AUC} \geq 1.5$ (inhibition or cirrhosis).
- Collected data: Date, drug and posology, interacting drug, cirrhosis grade, module used, $R_{AUC}$ value, PI and medical acceptation (MA) were recorded.
- The endpoints are PI and MA rates
- Data were analysed by one referent pharmacist.

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**Results/Discussion**

**PI for inducers with $0.5 \leq R_{AUC}$ consisted of**
- drug switch 33% (14/42) : for example rivaroxaban to warfarin
- interactor stop 6% (3/42)

**PI for inhibitors with $R_{AUC} \geq 1.5$ consisted of**
- dose lowering 21.5% (17/79)
- drug switch 8.8% (7/79) : for example mirtazapine to paroxetine

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**Conclusion**

- This first study assessing “DDI-P” shows how it may help clinical pharmacists in their daily practice.
- $R_{AUC}$ value leads pharmacists to assess the importance of DDI and to propose therapeutic adjustments to physicians, contributing to therapeutic decision.
- Although it is easy to use, pharmacists must therefore be trained to interpret the result in the clinical context at the time of the analysis to avoid potential misuses.