PharmaPendium®

Drug-Drug Interaction Risk Calculator 2.0

Reduce drug development risk and protect patient safety

- Enables fast and confident DDI predictions
- The most comprehensive victim and perpetrator dataset in a single solution
- Co-developed with Principal DMPK Scientists in global pharma companies, making it both powerful and user-friendly

Predictions of harmful Drug-Drug Interactions (DDIs) early in during development reduce the need for costly clinical DDI studies, optimize the design of clinical trials, and reduce the risk of unexpected post-market adverse events.

However, making these predictions at a high level of confidence typically requires manual searches for data, which can be time consuming and carries risks of missing important information. In addition, conducting analyses against a wide range of co-medications can be a challenge.

PharmaPendium's Drug-Drug Interaction Risk Calculator 2.0 (DDIRC 2.0), which is part of the PharmaPendium DMPK solution provides a faster and more reliable method of predicting DDIs using a mechanistic static model compliant with the 2020 In vitro Interaction studies FDA guidance.

Best-in-class risk prediction

DDIRC's comprehensive dataset and user-friendly interface allow researchers to calculate AUC ratio to assess the risk of DDIs between a drug candidate and potential co-medications (marketed drugs) before phase I clinical trial but as well in phase II/III clinical trial.

It quickly identifies potential metabolism-based DDIs, which can inform critical decisions about which drugs to advance, what clinical phase I DDI studies to perform, and which mitigation strategies to follow for inclusion/exclusion of patients in clinical phase II/III based on co-medications.

> "DDIRC one of the best DDI prediction tools for scientists"
>
> —Department Head Pharmacokinetics and Drug Interaction, Global Pharma Company

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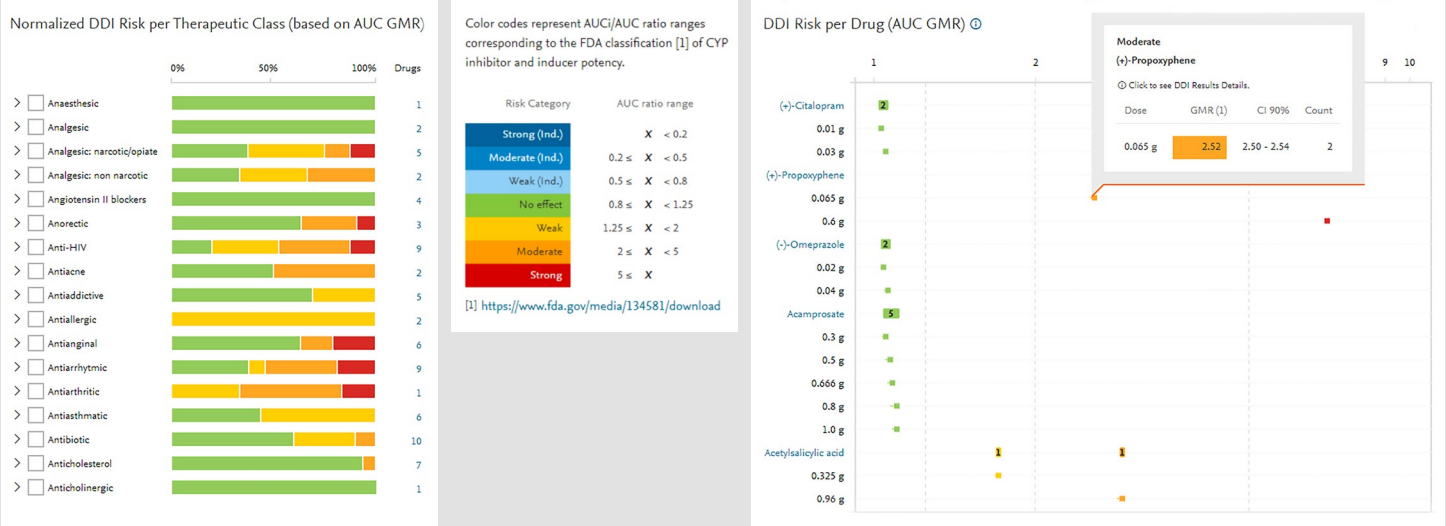
"You get much more information about DDIs in a shorter amount of time."

—Principal Scientist, Global Pharma Company

Powerful and easy to use:

- Enter data easily — Guided data entry forms and automated data loading makes the tool easy to use and shortens the learning curve
- Predict AUC ratio accurately — Mechanistic static model FDA compliant supporting induction and inhibition of gut and liver metabolic enzymes (CYPs and UGTs)
- Quickly identify harmful interactions — Advanced visualization (Forest Plot) and filters supports the quick identification of drug-drug interaction risk
- Store and compare predictions — The calculator's project environment stores results of multiple simulations during the drug development process.
- Connectivity with PharmaPendium — DDIRC enables the quick validation of results by cross-referencing with PharmaPendium's rich set of data sources
- Access to underlying data — The ability to view the data underlying the DDI predictions helps build confidence in the calculations



Advanced visualization by therapeutic class (Normalized Bar Chart) and at the drug level (Forest Plot) to support assessment of drug-drug interaction risk

Dataset included in DDIRC

FDA victims probes (CYPs) – 100% coverage	Overall marketed victim drugs – 400	FDA perpetrator probes (CYPs) – 100% coverage	Overall marketed perpetrator drugs – 600	Therapeutic classes covered – 158

Created in partnership with global pharma companies

DDIRC was created in partnership with seven of the leading pharma companies in the world, ensuring that the calculator has enough power and usability to make a marked impact in improving patient safety outcomes and reducing risk.

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For more information or to request a PharmaPendium demo, visit elsevier.com/solutions/pharmapendium-clinical-data/dmpk