



New Research Reveals the Prevalence of Drug-Drug Interactions and the Economic Impact on the Healthcare System

Studies show an alarming prevalence of concurrent ingestion of interacting substances by patients and that providing physicians with clear, objective information leads to a reduction of interactions and costs for patients

as presented in Expert Opinion on Drug Metabolism & Toxicology and Drugs—Real World Outcomes

Expert Opinion on Drug Metabolism & Toxicology:

Characterization of Drug-Drug Interactions in Patients Whose Substance Intake Was Objectively Identified by Detection in Urine¹

Joshua Schrecker, Pharm.D.; Brandi Puet, Pharm.D.; Cheryl Hild, Ph.D.; David M. Schwoppe, Ph.D.

Researchers found over 9,000 DDIs among a study of 15,000 patients across 34 states in the U.S.

38% Of the participants who underwent InterACT Rx™ testing, 38% had at least one drug interaction objectively identified between two recently ingested substances.

11% Around 11% of these interactions were identified as severe or contraindicated.

1 in 5 Nearly 1 in 5 patients met polypharmacy criteria (detection of >/ 5 substances).

4X Polypharmacy patients were four times more likely to have a DDI identified.

5X Polypharmacy patients were five times more likely to have a severe or contraindicated DDI.

KEY TAKEAWAYS

These findings indicate the importance of using a definitive method to identify DDIs based on ingested substances. Even in a clinical environment where attention is given to the identification of DDIs and subsequent patient counseling with regards to DDIs and ADEs, a significant rate of severe and contraindicated DDIs were diagnosed.

Research Design And Methods

This was a retrospective analysis of the prevalence of DDIs identified in patients with chronic pain, addiction and/or behavioral health conditions in the U.S. Relationships between patient demographics, polypharmacy and the occurrence of DDIs were also described.

Drugs—Real World Outcomes:

Impact of Definitive Drug-Drug Interaction Testing on Medication Management and Patient Care²

Renée J. G. Arnold, Pharm.D., RPh; Jun Tang, Ph.D.; Joshua Schrecker, Pharm.D.; Cheryl Hild, Ph.D.

Researchers took a retrospective look at 262 patients with chronic pain and/or behavioral health disorders and analyzed pre- and post-index date outcomes and found that objectively identifying DDIs can lead to improved outcomes and reduced costs.

27% Researchers found a 27% **reduction** in the average number of monthly outpatient visits per patient.

23% **Cost savings** were shown for pain-related outpatient visits with the average cost declining by 23% per month.

13% Prescriptions for opioids **decreased** by nearly 13% in the post-index period in comparison to prescriptions written prior to completion of InterACT Rx™ testing.

51% Severe and contraindicated DDIs identified through InterACT Rx™ testing were **no longer present** at retest in 51% of patients.

KEY TAKEAWAYS

Through a fully integrated and comprehensive diagnostic testing and reporting platform, InterACT Rx™ provides definitive identification of relevant interacting substances coupled with clinically actionable descriptions and information on the severity of the identified DDIs. By testing for and identifying these interactions, clinicians can improve medication management and overall health outcomes for patients while reducing overall health system costs.

Research Design And Methods

Patients with chronic pain, behavioral health disorders, or both, who had one or more drug–drug interaction tests and one or more drug–drug interactions identified in the study period were included. Drug–drug interaction test results described the number and severity of interactions and detected substances involved in drug–drug interactions. Patients' electronic medical records were obtained to analyze outpatient visits and prescription medications. The cost of outpatient visits was based on the Medicare Physician Fee Schedule. Outcomes were compared between the pre- and post-study index periods to determine the impact of the drug–drug interaction test on patient care.

INTERACT RX™

InterACT Rx™ testing detects over 120* substances known to cause drug-drug interactions. It is designed to reduce the risk of adverse drug events associated with DDIs through objective identification and reporting of interactions.

InterACT Rx™ can play a key role in medication management strategy, providing clinicians with actionable insight.



OPTIMIZE CARE

Increase positive outcomes and improve understanding through valuable insight



REDUCE RISK

Actionable insight to prevent adverse effects from unknown sources



SAVE TIME

Know the full story faster and reduce inefficient treatment adjustments and follow-ups

If you would like additional information, call 800.533.7052 or visit aegislabs.com.

References

1. Joshua Schrecker, Brandi Puet, Cheryl Hild & David M. Schwoppe (2018) Characterization of drug-drug interactions in patients whose substance intake was objectively identified by detection in urine, Expert Opinion on Drug Metabolism & Toxicology, 14:9, 973-978, DOI: 10.1080/17425255.2018.1509953
2. Arnold, R.J.G., Tang, J., Schrecker, J. et al. Drugs - Real World Outcomes (2018). <https://doi.org/10.1007/s40801-018-0143-z>

* Composition and number of analytes in test profile subject to periodic updates.

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