

Enabling Personalized Medication

PGXperts PRiM – Personalized Risk Management in the Medication Process

Case study: Autoimmune disease

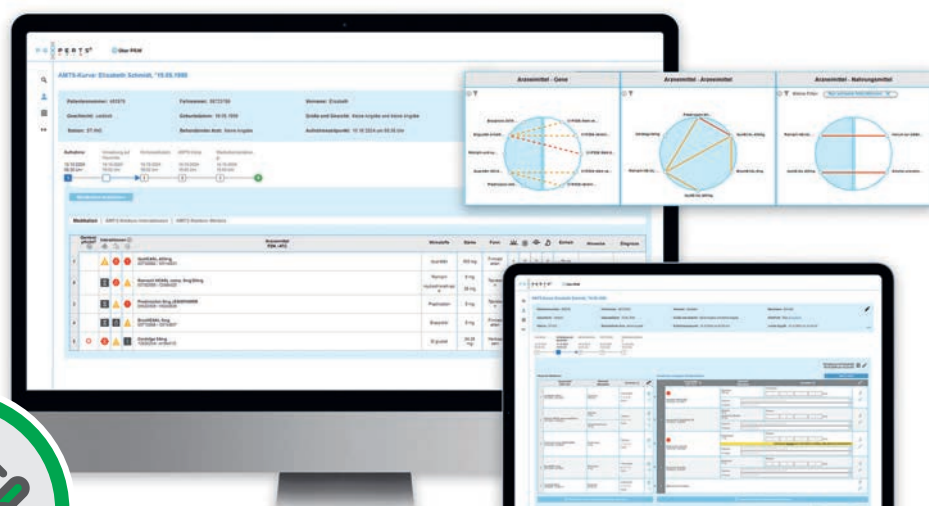
A female patient is hospitalized due to severe pneumonia. She reports having a mouth ulcer and an unexplained hematoma on her lower leg. In addition to rheumatoid arthritis, she suffers from hypertension and elevated uric acid levels.

The attending physician conducts a medication history using PGXperts PRiM. She records the patient's current medication by scanning the medication plan brought in by the patient. All included information is transferred automatically. The physician adjusts the medication to align with the hospital's formulary stored in the system. Ramipril is replaced with Enalapril. To treat the pneumonia, she prescribes the antibiotic Ampicillin/Sulbactam intravenously.

The physician checks the medication for drug-related safety risks using PGXperts PRiM. She identifies a serious interaction between Azathioprine and Allopurinol, which can lead to elevated liver enzymes and hematologic disorders. There is also a risk of severe skin reactions due to a potential pharmacogenetic effect. As a result, she replaces Allopurinol with Benzbromarone. PGXperts PRiM also provides a warning to avoid milk during Azathioprine intake and to avoid consuming grapefruit and licorice.

The physician also receives an alert that the EMA recommends genetic testing before administering the high-risk drug Azathioprine due to its potential for myelotoxicity. She orders a PGxProfile, which reveals reduced TPMT activity. Consequently, she reduces the dosage accordingly.

After successful treatment of the pneumonia, the patient is discharged from the hospital. The physician expects that the mouth ulcer and hematoma will subside in the near future as a result of the reduced Azathioprine dosage. The discharge medication is generated in PGXperts PRiM and automatically transferred into the discharge summary. The physician then issues a new electronic prescription and an updated electronic medication plan.



PGXperts PRiM

Personalized Risk Management in the Medication Process

Patient safety is the top priority when prescribing medication. Adverse drug reactions and avoidable medication errors can lead to prolonged hospital stays and increased treatment costs.

PGXperts PRiM digitizes your facility's entire medication management process based on the Closed Loop Medication model and supports you in the prescribing process as a Clinical Decision Support System (CDSS).

Drug therapy safety in clinical routine

A variety of risk factors can significantly compromise medication safety including contraindications, allergies or laboratory values such as interactions between medications, food and a patient's individual genetic traits. With the integrated drug therapy safety (DTS) check, all relevant influencing factors are taken into account. This provides medical professionals with effective support at every stage of the medication process.

Personalized medication with pharmacogenetics

The integrated DTS-check helps identify patients who may benefit from pharmacogenetic testing. With our end-to-end service for generating a PGxProfile, you can already take a leading role in Personalized Medication today.

Comprehensive integration capabilities

Thanks to our modular interface concept, PGXperts PRiM can be tailored to the specific requirements of your facility. The application integrates seamlessly into existing digital health systems via standardized interfaces such as HL7, FHIR and the telematics infrastructure. Its independent data architecture also enables external access from various IT systems.

Key benefits:

- **Efficient admission and discharge medication**
Scan function, intelligent medication search and creation of ePrescriptions and electronic medication plans
- **Interoperable with clinical systems**
Automatic import of patient data and transfer to third-party systems
- **Fully integrated into the prescribing process**
DTS-check accessible at every step as a web application on PC and tablet
- **Accessible as an add-on**
External access from all clinical systems
- **Personalized Medication with pharmacogenetics**
Identify risks, order PGxProfile, and personalize medication
- **Quality management according to EN ISO 13485**
Certified manufacturer of software for pharmacogenetics and pharmacology



**Efficient drug therapy begins with a consultation
– no strings attached!**

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For more information please visit: www.pgxperts.com/en/hospitals



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