CROSS-SECTIONAL STUDY TO ASSESS THE USE AND RATIONALITY OF PHARMACOGENOMICS IN PSYCHIATRIC WARDS.

Trine Birkholm, Zelia Stensballe, Terese Rønskov, Trine R. H. Andersen.
Region Zealand Hospital Pharmacy, Roskilde, Denmark

Background and aim

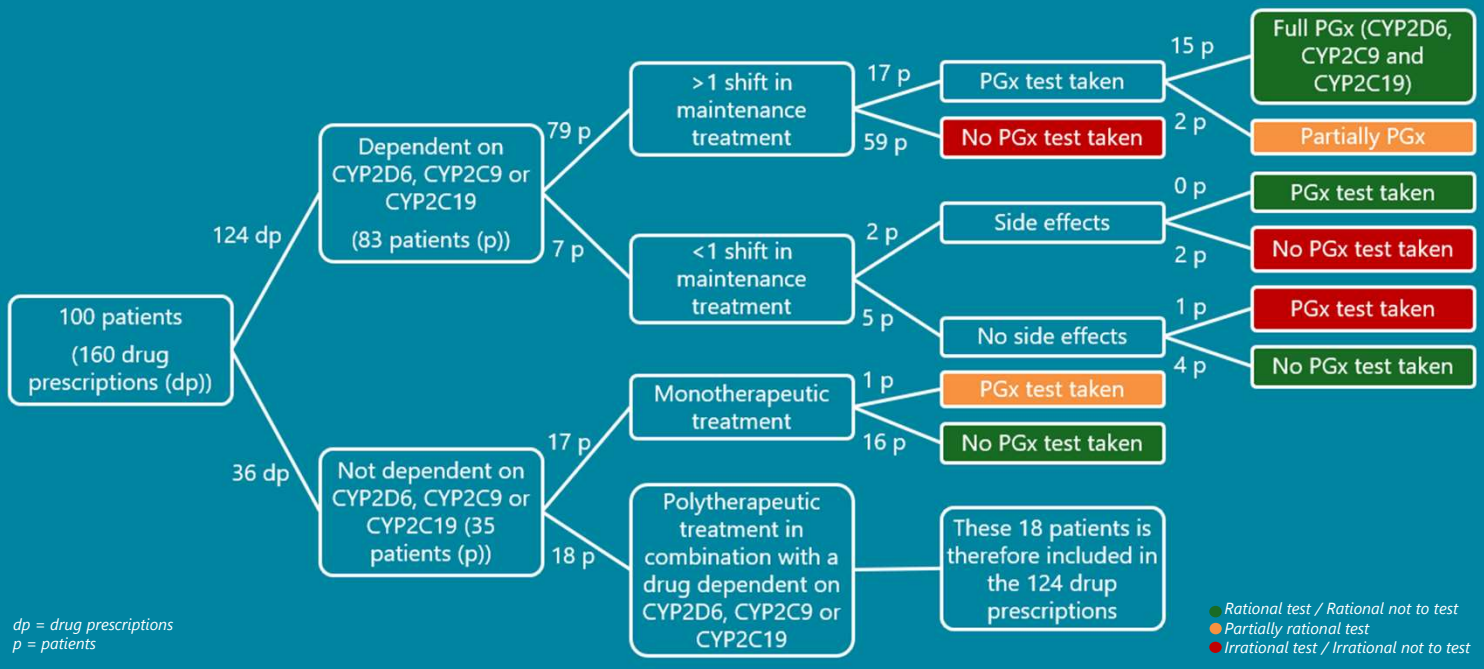
Pharmacogenomics (PGx) is the study of how a patient's genetics influence drug response. This personalized approach helps in selecting the right drug and dosage, reducing adverse effects and improving therapeutic outcomes. PGx in psychiatric patients should be considered if the drug in question is metabolized by CYP2D6, CYP2C9 or CYP2C19, where significant genetic variations exist. This study aimed to investigate the extent and rational use of PGx in a psychiatric clinical setting.

Materials and methods

A cross-sectional study included adult patients with schizophrenia, depression, or bipolar disorder from three psychiatric wards over five weeks in May-April 2024. Prescription data on antipsychotics, antidepressants, and/or mood stabilizers, along with laboratory results, were analyzed by clinical pharmacists to assess the rational use of PGx. It was deemed rational if the patient had >1 shift in psychotherapeutic treatment, the treatment drug was metabolized by CYP2D6, CYP2C9, or CYP2C19, and the corresponding test had been ordered.

Results

- Only 16 out of 100 cases had a rational use of PGx.
- In 17 out of 100 cases, no PGx test was performed, which was also considered rational.
- In one case, a test was performed even though it was not rational.
- In 61 cases, it was deemed irrational that no tests had been performed.



Conclusion and relevance

The overall use of PGx was very limited. In 61% of patients, there had been more than one shift in pharmacotherapy involving drugs dependent on CYP2D6, CYP2C9, or CYP2C19, where a PGx test is advised. These results highlight the need for pharmacological guidance in psychiatric wards, which may be provided by clinical pharmacists.

Abstract number 4CPS-212
Contact: Trbi@regionsjaelland.dk

REGION ZEALAND