Patient 3: 3-year-old girl, early diagnosis, 1 month of imiglucerase treatment.

Parameter	Before ERT	During ERT	% change of parameters
Haemoglobin (g/dl)	3.2	5.1	+59%
Platelets x109/l	85	63	−25%
AST	70	73	+4%
ALT	48	32	−33%

Patient 4: 11-year-old boy, delayed diagnosis, 11 months of treatment with taliglucerase, after 1 year interruption of ERT.

Parameter	Before ERT	During ERT	% change of parameters
Haemoglobin (g/dl)	11.4	12.6	+10%
Platelets x109/l	127	101	−20
AST/ALT	123/34	-	-
B glucosidase (ukat/kg of prot)	1	-	-

The ERT had generally been well tolerated and no adverse effects were identified.

Conclusion The ERT used by our patients has an acceptable tolerance profile as well as beneficial effects on the parameters related to the disease. These beneficial effects were demonstrated by the effectiveness variables that were kept stable or improved throughout the treatment in children with Gaucher disease.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-186 THERAPEUTIC DRUG MONITORING OF TYROSINE KINASE INHIBITORS: KEY TO PERSONALISED MEDICINE IN ONCOLOGY

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Background Tyrosine kinase inhibitors (TKIs) are increasingly used as oral targeted therapies in oncology. However, the oral route leads to a high interindividual pharmacokinetic variability. Thus, in order to improve efficacy and/or reduce toxicity, therapeutic drug monitoring (TDM) can be used to adapt doses and personalise treatments.[1 2]

Purpose To assess the potential impact of TDM on clinical decisions in patients treated with TKIs.

Material and methods Retrospective study from January to October 2018 including patients treated for solid tumours with TKIs.

Blood samples were collected and analysed to determine TKIs trough plasma concentrations 3 to 15 days after administration depending on the TKI (necessary time to reach targeted steady state).

All patients were initiated at the recommended daily dose of TKIs. Doses were then adjusted based on efficacy, toxicity and TDM outcomes. In case of failure on TKIs, patients were administered a second-line therapy or another TKI.

The evaluated criteria were patients' characteristics, concomitant treatments, patients' plasma exposure, medical decision, tolerance and disease progression.

Results In total, we collected and analysed 73 blood samples, of which 61.6% were an anti-estimated glomerular filtration rate (afatinib, osimertinib, gefitinib, erlotinib), 21.9% anti-CDK4/6 drug (palbociclib) and 16.4% anti-vascular endothelial growth factor drugs (cabozantinib, nintédanib, pazopanib, regorafenib, sunitinib).

Sixty-two per cent (n=45) of the samples were within the therapeutic interval and most patients continued treatment. However, 10 cases were switched: eight because of disease progression and two due to toxicity.

Despite subtherapeutic exposure (26%, n=19), treatment was continued without any dose escalation in nine cases, as the maximum authorised dosage was reached.

On the other hand, supratherapeutic exposure (12%, n=9) required dose reduction of the TKI or treatment withdrawal in five cases while the other four had a good tolerance.

TKIs are mostly well tolerated as 12 patients out of 45 reached the 1–2 toxicity grade and only two patients reached the 3–4 toxicity grade.

Four drug-drug interactions have been identified after TDM. TKIs are essentially metabolised by cytochrome P450 enzymes.[3]

Conclusion This study suggests that TDM could help in daily clinical decisions along with other clinical data. Indeed, TDM helped us to detect supratherapeutic exposure and reduce toxicity, uncover drug interactions and optimise patient management to improve clinical outcomes.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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3. PMID: 24041628.

No conflict of interest.

4CPS-187 EVALUATION OF EXIT PRESCRIPTIONS USING COMPUTERISED PROVIDER ORDER-ENTRY SYSTEM FOR OUTPATIENTS

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Background Medication errors are a major source of many risks to patients. The replacement of hand-written orders by the recommended Computerised Provider Order-Entry (CPOE) system[1] makes it possible to issue exit prescriptions more safely. Indeed, outpatients can benefit from pharmaceutical opinions reported during their hospitalisations.

Purpose Outpatients must have a complete record of medication drugs prescribed by the hospital's physicians. To improve patients' clinical care, it is necessary to evaluate the conformity of outpatient medication.

Material and methods We conducted a retrospective study in three hospital departments (digestive surgery, internal medicine, geriatrics) over a 6 month period in order to analyse the conformity and errors in the exit prescription related to CPOE using the software Pharma (Computer Engineering, France) and the Electronic Medical Records (EMR) in Axigate (Pharmagest, France).

Results One-thousand two-hundred and eighty-nine patients were included, of which 933 (72%) had an exit prescription