Introduction

2001: First TKI (imatinib)
2015: 43 TKIs (1/4 treatment) + 1 mTOR inhibitor (imTOR) + Proton Pomp Inhibitors (PPIs)

Are there concomitant prescription of TKI-AID in Pays de la Loire area (PL) inducing treatment efficacy decrease?

Material and Method

- Literature synthesis to analyse TKI-AID interactions and effects
- Survey of oncologists about PPIs prescription in 2017 (15 days in December).
- Retrospective study of concomitant dispensing in 2016 conducted by the Medical Department of the French Regional Health Insurance (FRHI PL)
  - SNIRAM database (>95% population)
  - No Hospital drugs dispensing
  - PL patients (pts) with at least 1 TKI or 1 imTOR dispensing in 2016 (n=2309 pts)

Results of the clinicians’ survey

- 43 answers: 98% have used to prescribed them.
- Major reasons:
  - 88% of clinicians prescribe them for the treatment of gastroesophageal reflux
  - 67% for the prevention/treatment of NSAID-associated ulcers and 55% for oeso-duodenal/stomach ulcers
  - 31% for unknown reasons but required by patient
  - 31% for Zollinger-Ellison syndrome.
- Duration of treatment variable: more often between 7 days and 2 months

Results

2309 pts with at least 1 TKI/imTOR dispensing in 2016

- No AID dispensing: 967 pts
- No AID-TKI concomitant dispensing: 274 pts (calendar month)

1068 pts with at least 1 concomitant TKI-AID dispensing in 2016: 46%

- Antacids + anti-ulcerous drugs: 405 pts

835 with at least 1 concomitant PPI-TKI dispensing in 2016: 36%

- Total PPI-TKI concomitant dispensing: 37%

TKIs/imTOR most concerned:
- imatinib, everolimus, sorafenib, ruxolitinib, erlotinib and sunitinib

Discussion / Perspectives

- In 2017 in PL, half of the patients have a concomitant dispensing of TKI/imTOR and PPI with a potential interaction which should be considered for optimal TKI absorption. This study would be performed soon in another area (Brittany) to confirm our results. The current debate on the clinical impact of pharmacological interactions between TKI and PPI is ongoing. Variable information based on the consulted data sources have been found. There is a risk of less effective TKIs. Clinicians should know this risk and assess again the TKI prescriptions and the duration of treatments or the use of others AID treatments.
- Moreover, TKI and PPIs could interact on cytochrome . The same analysis would be done soon.