

Tyrosine Kinase Inhibitors (TKI) and acid-inhibitory drugs (AID) : strong concomitant dispensing and drug-drug interaction risk.

Abstract 1864

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Introduction

2001 : First TKI (imatinib) Acid-Inhibitory Drugs (AID):
 2015 : 43 TKIs (1/4 treatment) + antacids + anti-ulcerous drugs
 1 mTOR inhibitor (imTOR) + Proton Pump Inhibitors (PPIs)

ORAL TREATMENT

↗ intragastric pH

↘ TKI solubility, ↘ bioavailability and ↘ treatment efficacy ?

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

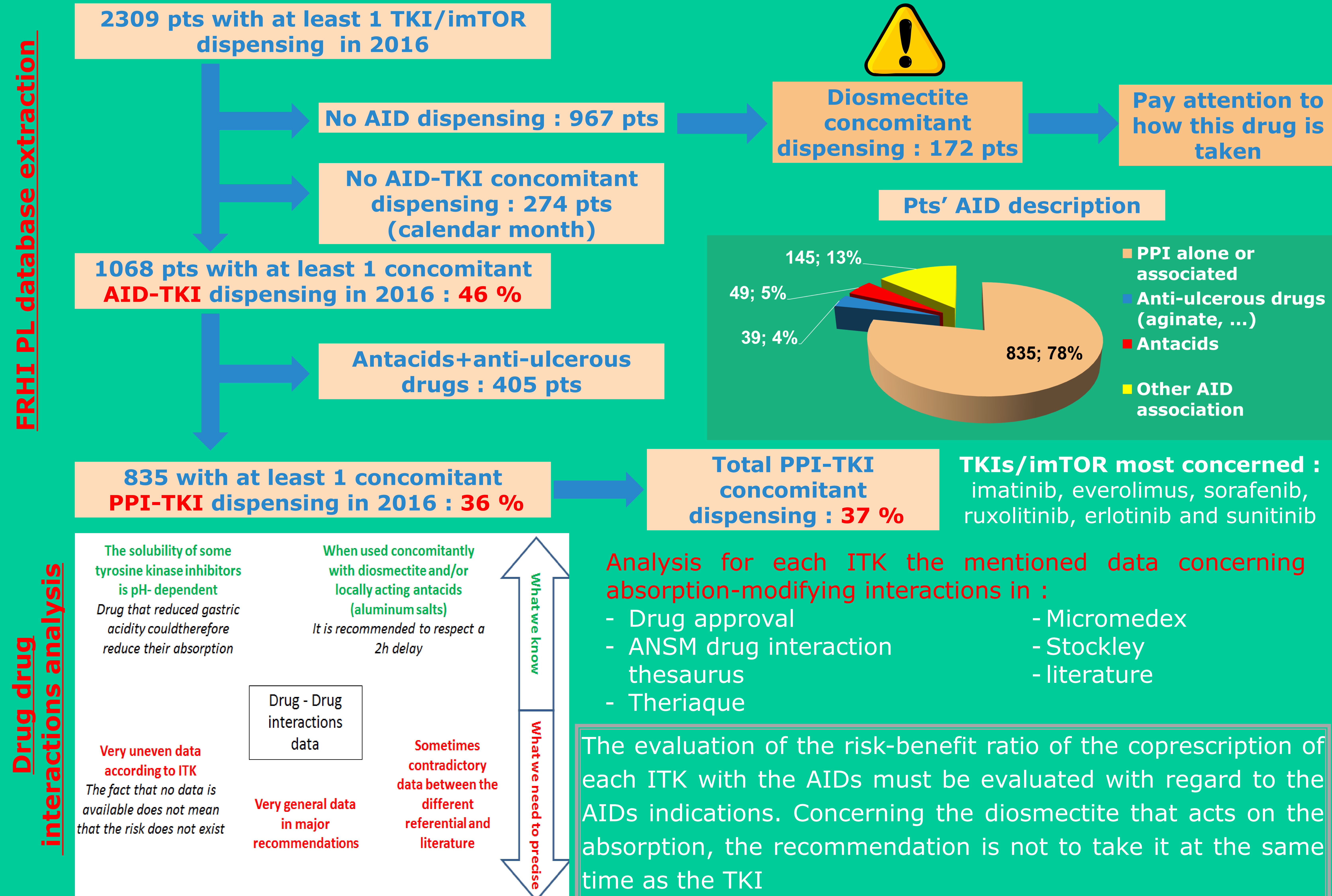
Material and Method

- ✓ 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



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 so 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.