Contribution of dose harmonization to the reallocation of preparations

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GERPAC
Hyères – 2024
COM24-41984

Introduction/Objective

Chemotherapy activity in our hospital continues to increase : growing number of new patients and need to subcontract preparations for other establishments within our Territory Hospital Group → 12,000 preparations are forecast for the year, compared to 10,000 in 2023.
To cope with this, it will be necessary to develop advance preparation, which is likely to increase the proportion of returned preparations for non-administration.

Objective **Harmonize doses in order to encourage the reallocation of preparations.**

Material and method

Extraction from CHIMIO® (V6.0, Computer Engineering) software for 2023

Stage 1

To define the eligible molecules (among those that can be anticipated)

Eligibility criteria
- High prescription rate (>300)
-Wide dispersion of prescribed doses (>10)

Stage 2

To define the harmonized doses for each eligible molecule

Graphs « *Prescription frequency per dose* »
→ To identify the most commonly prescribed doses and dose intervals : have to be covered by the harmonized doses in order to be relevant.

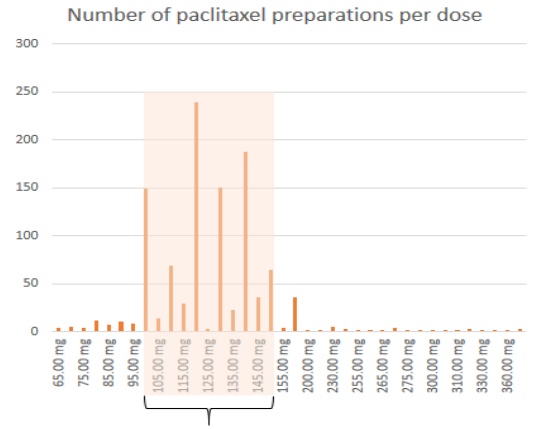
Range : +/- 5%

Results

9 eligible molecules
- Carboplatine
- Gemcitabine
- Bévacizumab
- Etoposide
- Irinotécan
- Oxaliplatine
- Lévofolinate
- Paclitaxel
- 5-FU in diffuser form

For each eligible molecule, the proposed harmonization will make it possible to **divide the number of doses to be prescribed by 2 to 6**, while **covering between 83% and 96% of prescriptions.**

Example of paclitaxel :



Principal dose interval: [100 mg-150 mg]

Proposed harmonized doses	Dose intervals	
Doses (mg)	Dose intervals (mg)	Percentage of preparations concerned
105	100-110	21%
120	114-126	24,8%
135	129-141	33%
150	143-160	12,8%
		91,6%

92% of preparations in **4 doses** (against 13 doses without harmonization)

Discussion/Conclusion

64%

Simulation : 64% of the destroyed preparations in 2023 could have been reallocated (57 preparations/89 destroyed), taking their stability into account, with the harmonization of doses.

Encouraging results : the harmonization of doses will make it easier to reallocate unadministered preparations.

Communication and awareness-raising tool for prescribers
→ To support the approach.

Software configuration to be made