

USE OF CABAZITAXEL AND REDUCTION OF WASTE: THE POTENTIAL OF DRUG DAY

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BACKGROUND AND IMPORTANCE

Cabazitaxel is an antineoplastic agent indicated for the treatment of adult patients with metastatic castration resistant prostate cancer, previously treated with a docetaxel-containing regimen. The formulation available on the market consists of a vial of concentrate which, after dilution, makes 60 mg of drug available. The recommended dose of Cabazitaxel is 25 mg/m² administered every 3 weeks and generally the dosages range between 20 and 50 mg. This results in a waste with a strong economic impact considering the cost of the drug. From January to September 2019, 12 patients are treated with Cabazitaxel in an hospital, for a total of 64 administrations (average dosage of 37 mg) in 49 different days. Consumption is up compared to the previous year (in 2018 from January to September 7 patients treated and 42 administrations). It is appropriate to check the advantages of introducing Drug Day.

WHAT IS DRUG DAY?

Drug-day is applied when all treatments with same drug were administered and compounded on the same day of the week.

AIM AND OBJECTIVES

The objective of this study is to verify the current waste of Cabazitaxel and the potential waste with the introduction of Drug Day.

MATERIALS AND METHODS

Leftover drug is calculated for each single day of administration (49 days). In the case of multiple administrations on the same day, leftover drug is calculated considering the vial sharing. The same method is used to calculate leftover drug of every single week of therapy, as if the therapies had been administered the same day of the week.

RESULTS

In 9 months (January-September 2019)

- 64 Cabazitaxel therapies
- 49 different days of therapy
- 26 different weeks of therapy

mg cabazitaxel administered (number of vials)	2.370 (39,5)	2.370 (39,5)
mg cabazitaxel wasted (number of vials)	1.350 (22,5)	810 (13,5)
% waste	+57%	+34%

Without Drug Day

With Drug Day

Projecting consumption and waste at 12 months we get an annual consumption of 4.960 mg of Cabazitaxel (83 vials, of which 30 are consumed as waste). With the introduction of Drug-Day the waste would drop to 810 mg (+ 34% compared to ideal consumption) and the projection would lead to an annual consumption of 4.240 mg (71 vials, of which 18 consumed as waste).

CONCLUSION AND RELEVANCE

The introduction of Drug Day for Cabazitaxel is fundamental to reduce waste, optimize resources and safeguard costs.