

# Analysis of non-administered chemotherapy preparations (NCPs) : an update on a 5-year experience

E. DI FALCO<sup>1</sup>, J. SANTASOUK<sup>1</sup>, O. KAATZ-ESCHBACH<sup>1</sup>, J. BOURBON<sup>1</sup>, JD. KAISER<sup>1</sup>

<sup>1</sup> : Pharmacy and sterilization, Louis Pasteur Hospital, Colmar

## Introduction

The organization implemented in our establishment often leads to medical/pharmaceutical validation and preparing/delivering chemotherapy drugs in advance of patient appointments and arrival. The limit value of 1% of non-administered chemotherapy preparations (NCPs) is usually mentioned as a threshold reference<sup>1</sup>. The aim of this study was to rate the quantitative and economic evolution, and to analyse the different reasons of non-administration over a 5-year period.

## Material - Method

From 2015 to 2019 :

- Exploiting CHIMIO® software :
  - Number of chemotherapies prepared each year
  - Reasons of non-administration (if relevant)
- Collection of NCPs (Excel® file) :
  - Drug (INN)
  - Dose
  - Cost
  - Reason of non-administration
  - Reallocation of the preparation
- Consulting patients medical records
  - Tolerance
  - Reason of non-administration

## Chemotherapies prepared

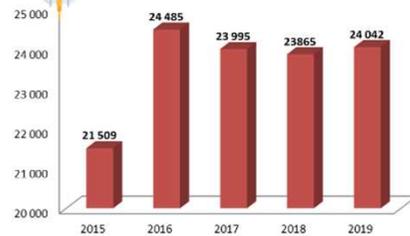


Figure 1: Evolution of chemotherapy doses prepared per year (2015-2019)

**+12% of chemotherapies prepared** over the 5-year period

## Results

### NCPs

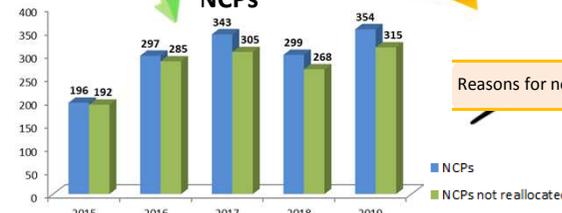


Figure 2: Evolution of NCPs and reallocation per year (2015-2019)

**+80% of NCPs** between 2015 and 2019.

**+65% of NCPs not reallocated**



Figure 4: Evolution of NCPs not reallocated reported to the activity (2015-2019)

Threshold reference : 1%

**1,31% in 2019**

**+0,42% since 2015**

### Reasons for non-administration

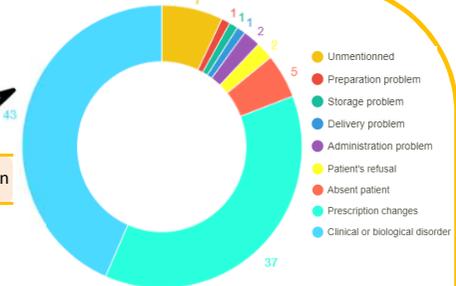


Figure 3: Average percentages of NCPs by reason of non-administration over the 5-year period

Different reasons for non-administration remained at similar rates over the period

### Costs

**149 286 €** (NCPs + NCPs reallocated) **increased by 241% between 2015 and 2019**

**BUT** : increase of immunotherapy's prescription and flat-dose

→ Anticipate flat-dose preparation systematically reallocated : an example with Nivolumab

Nivolumab	2015	2016	2017	2018	2019
NCPs	0	0	0	1	25
NCPs reallocated	0	0	0	1	25
Costs (€)	0	0	0	2 104	69 325

Table 1: Evolution of nivolumab anticipate preparation, reallocation and costs (2015-2019)

**Mitigate financial loss**

Final financial loss : **69 598 €** (NCPs not reallocated) **increased by 80% between 2015 and 2019**

## Discussion - Conclusion

These results will be introduced to the care units for reflection about areas of improvement to fall below this threshold value of NCPs (1%) (biological/clinical disorders, absent patients, and prescription changes). These proposals consist, for example, to call the patient the day before to confirm the appointment. A 2nd "OK Chimio", post medical consultation, is already required for expensive drugs, and the extension of this practice will be discussed. The effectiveness of these corrective actions will be assessed by internal audits.