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Background

- Medication errors have been a significant problem resulting in excessive patient morbidity and cost, especially for cancer chemotherapeutic agents.
- The pharmaceutical validation is considered an essential process in detecting medication errors in chemotherapy and related drugs.

Purpose

To describe and analyse pharmaceutical interventions (PI) carried out in oncohaematology patients during 2012 and 2013.

Material and methods

- Retrospective observational study conducted in a tertiary hospital.
- Data were collected from the PI reporting platform at the electronic prescription system, which comprises both hospitalised and out-patients. *Table 1*

Table 1. Data collected during study
Patient demographic data
In-patient or out-patient setting
Drug and dosage
PI cause
PI type
PI acceptance

- Drugs involved were classified into chemotherapy related or unrelated.
- PI were analyzed using Microsoft Excel 2007®.
- Acceptance data were categorized as accepted or no information available.

PI were CATEGORIZED IN 12 GROUPS associated with 52 different causes

- I. Dosage adjustment
- II. Dosing schedule
- III. Drug implicated
- IV. Administration route
- V. Dosage form
- VI. Frequency
- VII. Medical orders fulfilment
- VIII. Initiation of treatment
- IX. Duration of treatment
- X. Treatment monitoring
- XI. Suspension
- XII. Others

Results

- **3294 PI** (1109 patients) were registered (**4,5 PI/day**), in-patients accounted for nearly all of PI (95%) and 88% of involved drugs were unrelated to chemo.
- The **main type of PI** reported was **others** (38,5%). The most common causes were: inadequate use of electronic prescribing programme (21,2%), adapting dosage forms (17,9%), pharmaceutical care/patient information (14%).
- **Drugs related to higher notification rates** are described in *Table 2 and 3*.

Chemotherapy drugs	% Of total PI
Trastuzumab	4,2%
Carboplatin	2,9%
Gemcitabine	2,9%
Erlotinib	2,0%
Paclitaxel	2,0%

Table 2: Chemotherapy drugs with higher notification rate

Chemotherapy related drugs	% Of total PI
Antiemetic therapy	38,3%
Calcium folinate	6,0%
Filgastrim	6,0%
Zoledronic acid	4,9%

Table 3: Chemotherapy related drugs with higher notification rate

- PI global acceptance was 51%, but increased up to 93% considering only chemotherapy related drugs.
- Change of dose (24,4%) and schedule adjustment (22,2%) were the most frequent types of PI within chemo-related drugs.

Conclusions

- ✓ PI were mainly registered in the in-patient setting and focused on non chemo-related drugs.
- ✓ The different acceptance rate between chemo and non chemo drugs, explained by the lack of acceptance information, highlight the need for an improvement in the reporting tool.
- ✓ Results suggest the need for standardization of the PI reporting and evaluation process.