Artificial intelligence management system : what impact on the availability time of chemotherapy ?

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OBJECTIVE

Double visual check → Artificial intelligence management system (AIMS) via DRUGCAM®

Securing BUT time-consuming

To ensure that this security does not come at the expense of preparation availability times

MATERIALS & METHODS

Selection of the study weeks (W), representative of our production
- W1 : without AIMS
- W2 : with AIMS

Patients from the Day Hospital are studied (clinical trials excluded)

Only the parameters of the 1st chemotherapy the protocol are kept

Data exportation from CHIMIO® towards a spreedsheet

Day	Patient's identification number	Patient's arrival time = time of administration of the 1st chemo	Time of prescription	Time of release of the preparation	Timeframe for availabiltity (in min)

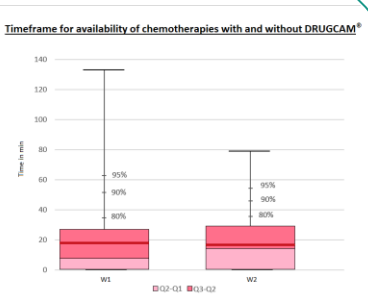
In case of an anticipated prescription, the time considered will be the theoretical patient's arrival time

Calculated parameters :
- Quartiles
- Means
- Standard deviation

Z-test for comparing means, independant samples

RESULTS

Annual mean : 62.3 preparations/day
- W1 : 62.2/day
- W2 : 63.8/day



	W1	W2
Number of patients	147	151
Q1	0 min	0 min
Q2	7.5 min	14 min
Q3	27 min	29.2 min
90%	51.6 min	46 min
Mean	17.4 min	17.0 min

Q1 = 0 min because 25% of the chemotherapies have an anticipated prescription

90% of chemotherapies are available in less than 1 hour without (W1) or with (W2) AIMS

Means are visually similar

Performing of the Z-test:
→ **Means are not significantly different**

CONCLUSION

- No negative impact on the preparation availability times
- 99.3% of the production is secured by AIMS (DRUGCAM®)
- Measuring the impact of the learning curve on performance 6 months after the implementation of AIMS