A MULTICENTRE STUDY COMPARING CHEMOTHERAPY PREPARATIONS USING A DIGITAL VIDEO MONITORING

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L01 - Cytostatics

BACKGROUND

- Chemotherapy Preparation (CP) is a risky step

Risky step

- The production circuit must be secured

Secured

- Manufacturing process guided by digital tool

Drugcam®

AIM

Perform a remote, multicentric and retrospective digital audit analyzing qualitatively and quantitatively the practices of different Chemoterapy Reconstitution Units in order to optimize the preparation step of CP.

MATERIALS AND METHODS

Over one year

Data from 10 public and private health care institutions

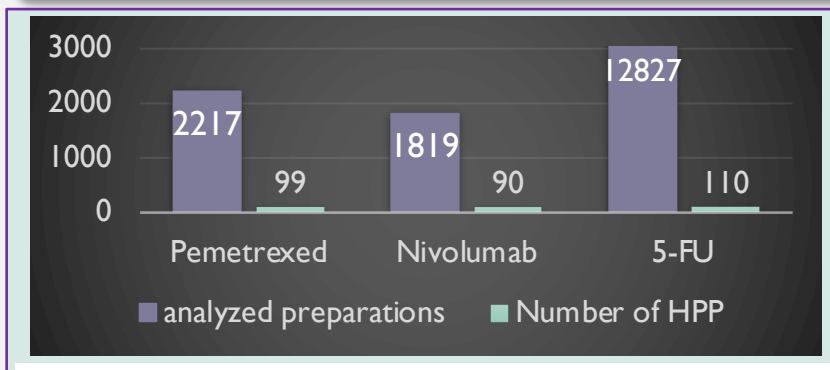
3 types of chemotherapy : Pemetrexed, Nivolumab, 5-FluoroUracile (5-FU)

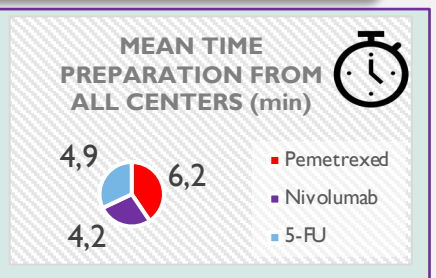
Quantitative data Extracted using local Drugcam® plug-in

Qualitative data obtained from audits made by pharmacists (ten video-recordings / CP)

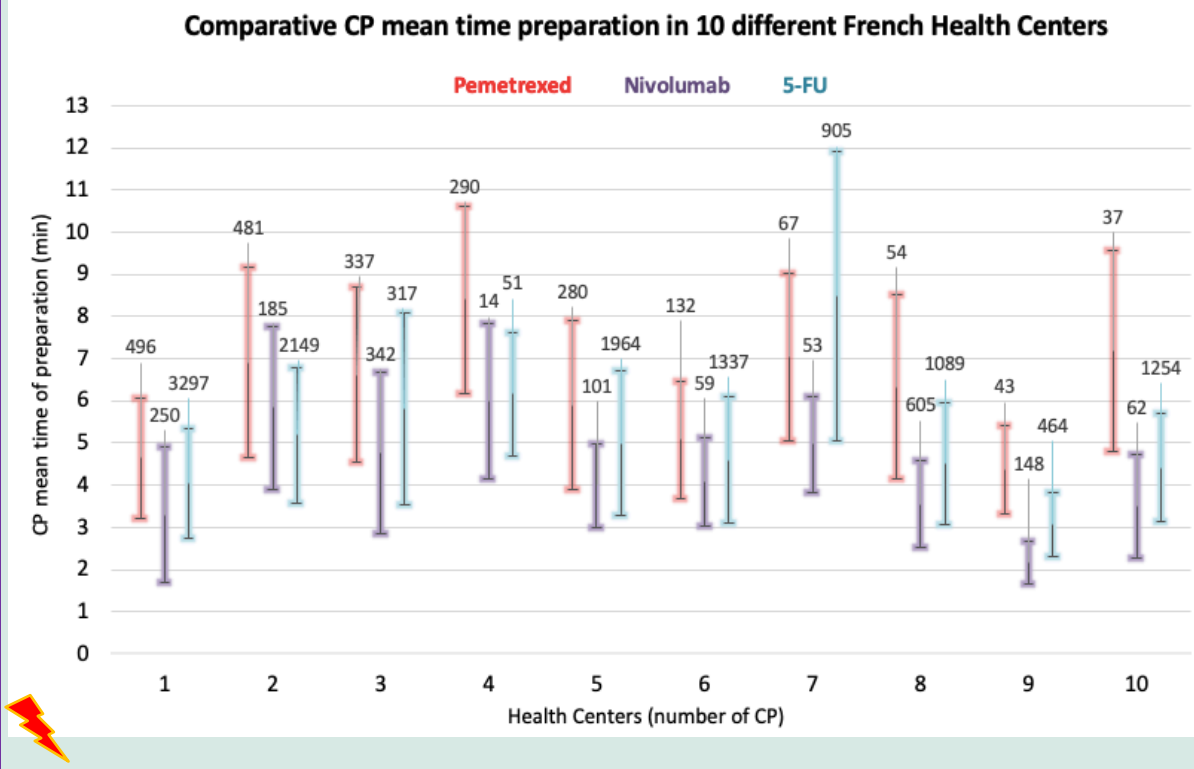
RESULTS

Quantitative analysis





*HPP : Hospital Pharmacy Preparer



The results show no difference in time production between Centers

Qualitative analysis

Heterogeneous practices between health centers :

- No compress used at all stages
- Different protocols are used for the reconstitution of the lyophilisate as well as its mirage
- Rapid injections into the solvent were observed
- The equipment used : infusion line or extension for infusion tree
- Drugcam® practice :
  - Labelling of the preparation filmed or not
  - Automatic detection or no detection by datamatrix of the solvent/vial bags

Strong impact on the quality of the product

CONCLUSION AND RELEVANCE

The quantitative analysis shows similar time production per CP between the different Centers, indicating that the preparation time was independent of the annual number of CP and the number of Hospital Pharmacy Preparer in each Center.

However → We found that the CP mode of preparation between Centers was different, possibly impacting the QUALITY and SAFETY of the CP. Our study allows us to recommend the good practices of Drugcam®, organizational modifications (series preparation, change of material reference…) and practice harmonization (standardized reconstitution of lyophilisates…).