Awareness of errors undetectable by DrugCam®: Evaluation of recognition by operators.

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INTRODUCTION

Since 2022, our chemotherapy preparation units have been equipped with **Drugcam® (DC)** to secure the process and to educe the need for double human verification.

Our analysis of non-conformities (NC) highlights **undetected errors by DC that were intercepted by pharmaceutical control.**
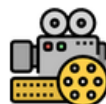
OBJECTIF

Evaluate the recognition by operators working in cytotoxic preparation unit of errors not detected by DC.

MATERIEL ET METHODES

1) **Development of a DC scenario** : a trastuzumab preparation in which 5 undetectable errors by the DC have benn introduced.

   The errors are based on NC that have already occured with reflections between pharmacist ans interns.

2) Individual **review** and **identification** of errors not detectable by DC.

3) **Presentation** of results during a team meating.

RESULTATS

5 errors need to be identified :

1. Use of tubing with a filter instead of tubing without a filter.
2. Failure to present the volume of active substance before injecting it into the solvent and intentionally presented an empty syringe.
3. Agitation of a monoclonal antibody vial.
4. Failure to purge the tubing.
5. Validation of the reconstitution solvent by DC and use of another solvent by inversion.

All **five errors were detected by 100% (n=10)** of operators working in the unit.

Unanticipated comments in the scenario were recorded by operators :

➢ 1 noted a too short reconsitution time.

➢ 5 noted the injection of solvent was not directed towards the wall of the vial.

DISCUSSION

The results are **very satisfactory** : It made us **aware of the limits of DC in a playful way**.

DC validates the key milestones of the preparation but does not ensure the absence of errors ouside of them → DC do not replace the operators concentration and vigilance.

Our suggestions for improving DC :
➢ Add pop-ups to guide the choice of medical devices.
➢ Provide additional information on how to reconstitute vials (agitation, rest periods…).
➢ Ensure continuous control by **artificial intelligence**, not just key milestones.

Positive feedback from the operator : perpetuation and **adaptation of the video format for other pharmacotechnical situations** (broken vials, product flow, etc) are in progress.