


## BACKGROUND

In accordance with **Ophthalmic Preparations monograph of the European Pharmacopoeia**, hospital-compounded eye drops must undergo **visual inspection** before vial **labelling**.

Our unit produces these preparations and has **inspection tables** and an **automated labelling system** to perform these final processes.

## AIM

 **Formalize staff training in visual inspection and labelling of eye drops, and implement evaluation tools to authorize staff.**

## MATERIALS AND METHODS

### Training tools:

- **Training booklet**: description of the workflow and equipments (inspection tables for visual control and automated labelling machines)
- **Defect library** consisting of 10 non-compliant (NC) vials for **training purpose**

### Evaluation tools:

- **Knowledge test (14 questions)**: multiple-choice quizzes and short answers
- **Test batch** of 60 eye drops vials (40 oil-based eye drops and 20 water-based eye drops) including 11 NC
- **Practical session**: visual inspection + labelling using skills evaluation grid
- **End-of-training interview** with a pharmacist → qualification
- Evaluation of satisfaction of trained operators

## RESULTS



**n = 5** trained operators (**4 pharmacy technicians and 1 pharmacy resident**)



Training duration = **3 days**



Evaluation on **day 7**

### Knowledge test (extract of 3 questions)

Depending on the question, tick the correct answer(s) or write a short answer. Leave the right-hand column for the examiner.

QUESTIONS	A	B	C	D	E	
1 – Visual inspection means:						
A) Checking for visible particles in the solution						
B) Checking for particles on the vial						
C) Checking the volume of the solution						
D) Checking the aspect of the solution (limpidity, colour, viscosity...)						
E) All the answers are correct						
2 – Before performing a visual inspection of a batch of eye drops, you must:						
A) Clean the vials with alcohol						
B) Label the vials for identification purposes						
C) Recount all the vials						
D) Use the batch file						
E) All the answers are correct						
3 – How should the mirage station be prepared for visual inspection?						

**Average score = 15,5/20**

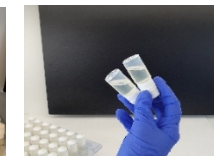
### Test batch (60 vials)

**100% of NC identified** by 4 of 5 participants

Reject of some compliant vials: **false detection of particles in oily eye drops** (n = 2/5 participants) → tolerated error because in case of doubt during routine work, second opinion can be requested

n = 1/5 participant failed to detect **an underfilled volume**

### Scenario-based evaluation of all skills



100% of trained operators have been authorized



100% participant satisfaction

## DISCUSSION/CONCLUSION



The results showed that the training effectively enables staff to acquire the necessary skills needed for **inspection** and **labelling of eye drops vials**



Updating ambiguous items in the knowledge test based on learner feedback



Tools used to train new staff and for periodic reassessment of current personnel