

Introduction

October 2023 : automated **APOTECA CHEMO®** system (Loccioni company) acquired

- **Standardized doses** in a dedicated production room
- Operated by one hospital pharmacy technician (**HPT**)
- Cobotic : **60 to 90** preparations per day

General production room :

- **3 double-post isolators**
- Can accomodate up to **10 people**
- Non-standardized doses prepared by a HPT

Objective : comparison of **HPTs** quality of life and working conditions (**QWLC**) in general production (GP) and standardized production (SP)

→ Two priority issues : musculoskeletal disorders (**MSDs**) and **noise**

Materials and methods



Multidisciplinary group : an ergonomist, a HPT, an intern and pharmacists.



GABO questionnaire about discomfort in the work environment.

- Anonymized and validated by INRS
- 83 items
- Distributed to all HPTs in the pharmacotechnical department



Noise mapping

- Using a sonometer
- In general production (GP) and standardized production (SP) rooms



Evaluation of MSDs

- Using **KIMEA® software** (Moovency), connected sensors and a camera
- 3 consecutive measurements of 1 minute 30 seconds
- RULA method
- HPT posted in GP and SP

Results

GABO questionnaire

17 HPTs including **7 HPT** trained in GP and SP

GABO questionnaire : 100% responses

Noise : noise intensity of the working environment and annoyance caused

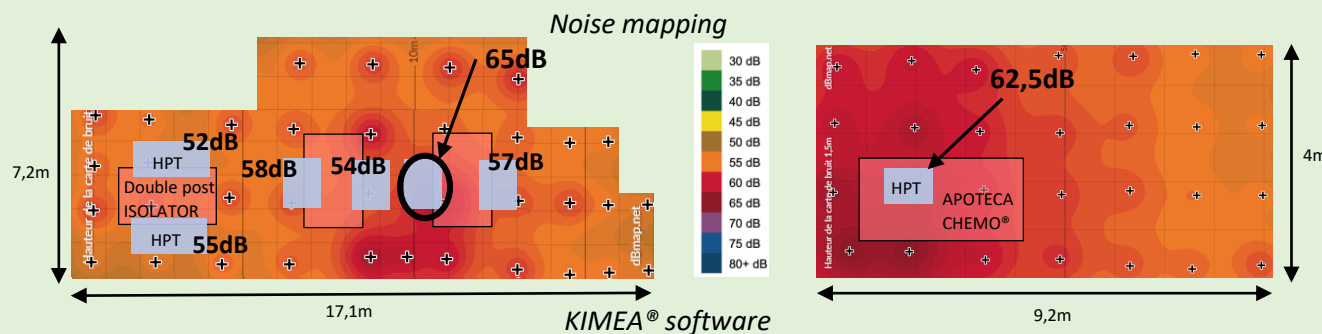
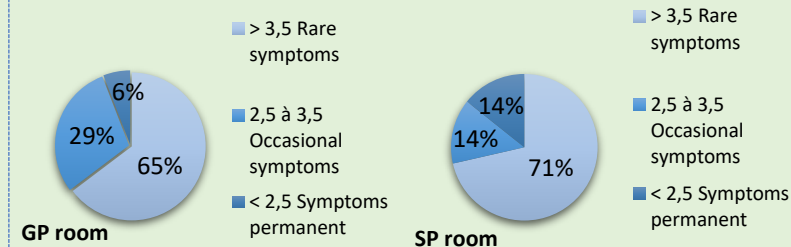
GP : **71%** of HPTs affected

→ By **production equipment** (82% of HPT) and **ringing telephones** (41%)

SP : **71%** of HPTs affected

→ By the **robot**

MSD : Employee-perceived symptoms



The analysis of **14 videos** produced with KIMEA® software on **7 HPT**, GP and SP activity, is currently ongoing.

Discussion and conclusion



Most disturbing noises : **production equipment**.

KIMEA® analysis enables a comparison of the HPT **working methods** in GP and SP

Preventive actions are needed to reduce noise and exposure to MSD