

## INTRODUCTION

The increased activity of our chemotherapy production unit (CPU) has consequences: musculoskeletal disorders (MSDs). After a first study on MSDs in our cancer institute in 2021, preventive measures have been put in place: shift rotation per half day and Romeo® handling aid (HA) (O3P Solution) acquisition.

## OBJECTIVES

- To evaluate the impact of measures on the evolution of MSDs in our team
- To conduct a practice survey on ROMEO® handling aid

## MATERIEL AND METHOD



A descriptive observational study from January to March 2023 in our CPU

1

Pharmaceutical technicians (PTs) of our CPU answered two questionnaires :

**NORDIC QUESTIONNAIRE**

→ Inventory of pains and discomforts felt by location

**BORG CR10 Scale**

→ Evaluating the risk of MSDs occurring according to three workstations: control station, without Drugcam® and with Drugcam®



**2023 Group** : 14 PTs

**2021 Sub-group** : 9 PTs who already responded in 2021



**Comparison of 2021 vs 2023 results**

Non parametric statistical test : Fischer's exact test and Wilcoxon test

2

Creation of a questionnaire on the use of Romeo® (10 questions) and submission to the 14 PTs



## RESULTATS-DISCUSSION

1

### NORDIC QUESTIONNAIRE (n=14)

#### Ear (hearing)

P : 42,8% vs 66,7%

RA : 0 vs 0

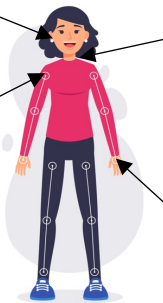
WA : 0 vs 0

#### Shoulders

P : 42,9% vs 33,3%

RA : 16,7% vs 33,3%

WA : 16,7% vs 0



#### Neck

P : 35,7% vs 35,7%

RA : 40% vs 20%

WA : 20% vs 0

#### Wrists-hands

P : 64,3% vs 66,7%

RA : 33,3% vs 33,3%

WA : 55,6% vs 33,3%

P : Prevalence

RA : Impact on recreational activities

WA : Impact on Work activities

2023 (n=14)

2021 (n=9)

Figure 1 : MSDs situation over the last 12 months : most impacted regions

→ Evolution not statistically significant for any location

### BORG CR10 SCALE (n=14)

- Increased strain felt after half a day of production for majority locations and for all workstations in 2023
- More body regions with a significant increase in the strain felt after a half day of production

Controle work station example ( $\alpha=5\%$ )

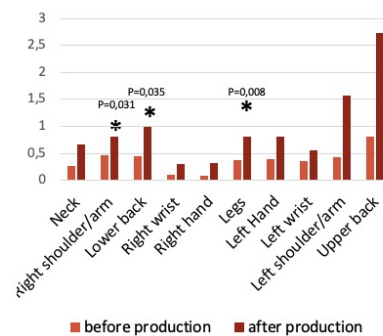


Figure 2 : Evolution of strain felt by location before and after production in 2023 (n=11)

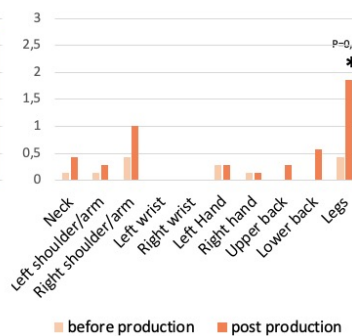


Figure 3 : Evolution of strain felt by location before and after production in 2021 (n=7)

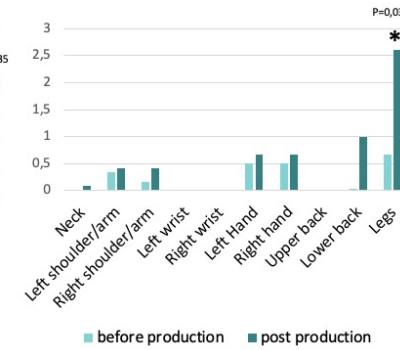


Figure 4 : Evolution of strain felt by location before and after production in 2023 in PTs present in 2021 (n=7)

2

### QUESTIONNAIRE ON ROMEO® (n=13)

#### 2 Romeo®'s users:

- Regular use
- For large volumes preparations
- Improvement of pain

#### 11 Romeo®'s no users

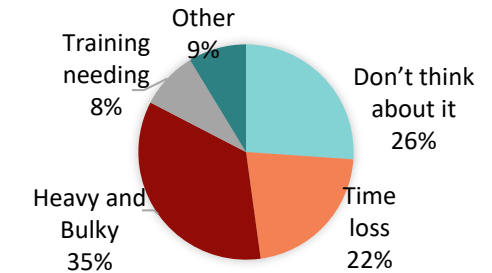


Figure 5 : Reasons not Romeo®'s use

## CONCLUSION

The 2021 measures appear insufficient in coping with MSDs. However, non-parametric tests have low power and require large differences to be significant. In view of a low ROMEO® use, an awareness action on MSDs and a training on ROMEO® will take place. After discussion with other user centers and the supplier, an optimization of our dose banding production is planned with slots reserved for ROMEO® use for large volume preparations. Finally, a follow-up using the prevalence and CR10 indicators will be set up to monitor the trend of MSDs.