

## INTRODUCTION

The non-sterile pharmacy preparatory has been equipped with a mixer in order to limit the musculoskeletal disorders that the pharmaceutical assistants (PA) in hospital develop. At the same time with a study on the mixing of powders, an interest was focused on the use of the new tool for the mixing of SSPSA. The objective of the study is the qualification of the mixer in order to obtain homogeneous mixtures.

## METHOD

### Targeted preparations:

- questran® ointment
- 50% salicylated petroleum jelly
- starch glycerol cold cream
- urea ointment

### Blinding tests

- texture 
- ease of application
- visual homogeneity (carmine red) 

### Method based on:

- literature
- visit and discussions with a dispensary equipped with the same mixer

### Setting up the content dosage for 50% salicylated petroleum jelly (SPJ)

According to the national form of the French Pharmacopoeia

## RESULTS

### SSPSA qualification test results with the new mixer (time and speed parameters that change between each test)

Preparations	Blinding tests		Selected mixing parameters
	Number of tests performed	Number of people who validated the selected parameters	
Questran® ointment	3	4/4	2min 500rpm then 3min 1000rpm
50% SPJ	2	2/4	2min 500rpm then 3min 1000rpm
Starch glycerol cold cream	3	2/5	3min 1500rpm
Urea ointment	3	1/3	3min 1000rpm

- These parameters were unanimous
- Doubling the mixing time did not result in a more homogeneous mixture
- Reconsideration of the two mixing phases for powder-free SSPSAs
- Crystallization problem during the preparation of one of the tests biasing the results

### Setting up the content dosage for 50% SPJ

	Salicylic acid content (%)	Theoretical content (%)	% error
Test 1	50,08	50	0,16
Test 2	50,82		1,64

The two dosages are in conformity with a percentage error compared to the theoretical value <10%.



Mixer



Ointment pot allowing mixing and use



Opinion collection grid

SSPSA qualification tests in pictures

## CONCLUSION

The various tests made it possible to validate the mixing parameters for each of the SSPSA studied. Compliance of the assay for the 50% SPJ content was found to be conclusive and this assay is now put into routine. The PA are very satisfied with the mixer: reduction in repetitive movements and mixing effort, less washing and therefore saving of time. A notice has been created to facilitate the use of the new SSPSA packaging. A satisfaction survey must be carried out in order to collect the opinions of consumer services.