

# Assessment of the Bexen medical Col system to prepare autologous serum eyes drops (ASC)

DAUJAT Adrien<sup>1</sup>, DIAS MEIRELES Vasco<sup>1</sup>, RABOUAM Lucas<sup>1</sup>, VALLEE François<sup>1</sup>, EPINETTE Anne-Caroline<sup>1</sup>  
<sup>1</sup>Biospharm, Pharmacotechnie sector, University Hospital of Poitiers, France

## Introduction

- ASC prescribed for dry eye syndrome at a dosage of 3 to 10 drops per day
- Currently manufactured by the PUI via patient serum diluted to 20% with 0.9% NaCl and transferred into 21 Low Density Polyethylene bottles for daily use
- Problems: rapid increase in the number of patients with musculoskeletal disorders of hospital preparers (HP)

→ **Assess the value of Bexen Medical's Col system compared to our Current Process for HPW comfort while maintaining safety of use for patients**

## Materials et Methods

- Medico-economic study between the two manufacturing methods
- Microbiological qualification :
  - 6 Media Fill Test (MFT) with Oxioïd® Thyoglyconate
  - Incubation at 32°C for 14 days
  - Visual inspection on D1, D3, D7, D14
- Simulation of use in real conditions:
  - Opening 3 ampoules 5x/d according to the recommendations given to the patients (hand hygiene, touch the tip as little as possible)
  - Opening 3 ampoules 5x/d without following the hygiene rules
  - Visual control at D1, D2, D3
- Satisfaction questionnaire to 6 HP
- Satisfaction questionnaire to 20 patients



### At process validation

- For 60 patients in active file: gain of between 8,500 and 12,000€ per year depending on the number of preparations
- No microbiological growth on the various MFTs at D14 → **Validation of the aseptic process**
- No microbiological growth in real conditions of use until D3 → **Validation of safety of use for patients over 24 hours**



### After 2 months of use

- 1 patient out of the 20 interviewed wishes to stay with the current bottle as the closure of the Col system is too difficult for this patient due to **the small diameter of the tip**

	Current process (CP)	Col system at M0	Col system at M2
Time	24 min	23min	17min
Satisfaction HP vs. CP	NC	Less painful, easier to use, closed system	Confirmation of the first results

## Conclusion

- ✓ Financial gain for the hospital
- ✓ Time saving to respond efficiently to the increase in the active patient file
- ✓ Reduction in musculoskeletal disorders of the HP
- ✓ Maintain patient safety by moving to a closed system
- ✓ Based on the feedback from the patient and HP questionnaires, continuation and expansion of the new manufacturing and storage system to all patients