

Feasibility study of a blood-derived eye drops preparation

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INTRODUCTION

Blood derived eve drops

Sterile compounding + Biological raw material

- Autologous Serum (AS)
- Plasma Rich in Growth Factors (PRGF)

Indication & Mechanism

- ☐ Second-line therapy in the severe dry eye
- ☐ Growth factors and vitamins supplementation

CONTEXT

Requests from ophthalmologists of the UHC of Brest Emergency nature for 2 patients

Limits of the subcontracting with the UHC of Rennes

OBJECTIVE

Feasibility study and circuit development of the bloodderived eye drops preparation

Incorporation of this activity with constant

Biological raw material handling (operator

MATERIAL & METHODS

- Literature review
- Consultation of medical devices (MD) suppliers
- Investigation of practices

(circulated to 15 French production units)

Materials Equipment Method

People

Environment

Literature review

Clinical efficiency and therapeutic interest of the AS PRGF/AS comparison in favour of the AS

- → Selection of the autologous serum as raw material
- \rightarrow Selection of a 20% dilution

Consulted MD suppliers not selected

- ☐ MD aiming to secure and standardize the process
- □ Endoret ® Kit (Horus Pharma): PRGF preparation kit \rightarrow PRGF not selected
- □ Col® Kit (Bexen Medical): AS eye drops or other blood derivatives preparation kit
 - → Lack of stability studies

RESULTS

Investigation of practices (7 answers)

workforce

training?)

- Response rate: 47%
- □ 100% are using the AS and a 20% dilution
 - → Confirmation of the results of the literature
- □ **Disparity of the answers** throughout the preparation circuit → lack of standardization



CONCLUSION Autologous serum eye drops preparation circuit established → Control and securing of a complex circuit by the pharmacy Prescription Dispensina Sampling (2 eye drops/15d) EFS* Pharmacy Manufacture/ Storage (-20°C for 6 months) **Controls** Hygiene Lab **Ophtalmologist** Release Quarantine (7 days after) Sterility tests *French blood

PERSPECTIVES

Establishment of an emergency circuit → Various perspectives remaining to be dealt with

■ Media Fill Test → process validation

establishment

- Professionals and patients support
- □ Consulted MD = future alternative?
- **Network constitution** for the provision of the AS eve drops