

# STANDARDIZATION OF THE MANUFACTURING PROCESS OF EXCIPIENT ALIQUOTS TO COVID-19 VACCINES

Thomann P. <sup>1</sup>, Carrez L. <sup>1</sup>, Pierrot A. <sup>1</sup>, Stampfli C. <sup>1</sup>, Sadeghipour F. <sup>1, 2, 3</sup>

<sup>1</sup> Department of Pharmacy, Lausanne University Hospital, Lausanne, Switzerland <sup>2</sup> Center for Research and Innovation in Clinical Pharmaceutical Sciences, University of Lausanne, University of Geneva, Switzerland; <sup>3</sup> Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, University of Lausanne, Geneva, Switzerland.

## Introduction

Since the beginning of the vaccination campaign in our hospital, cases of anaphylaxis are reported. Articles published in February 2021 indicate a prevalence of around 1 issue per million doses<sup>1</sup>. Subsequently, our production unit was then asked to evaluate the effectiveness of prick tests or aliquots as a screening tool for patients at risk.

## Objectives

Implementing a **standardized manufacturing process** for excipient aliquots for COVID-19 vaccines and integrating these new demands into routine activity.

## Material and method

The aliquots were manufactured under horizontal laminar airflow hood (BPF Class A), in a controlled atmosphere zone of GMP Class C piloted by a gravimetric software (BD CATO®)

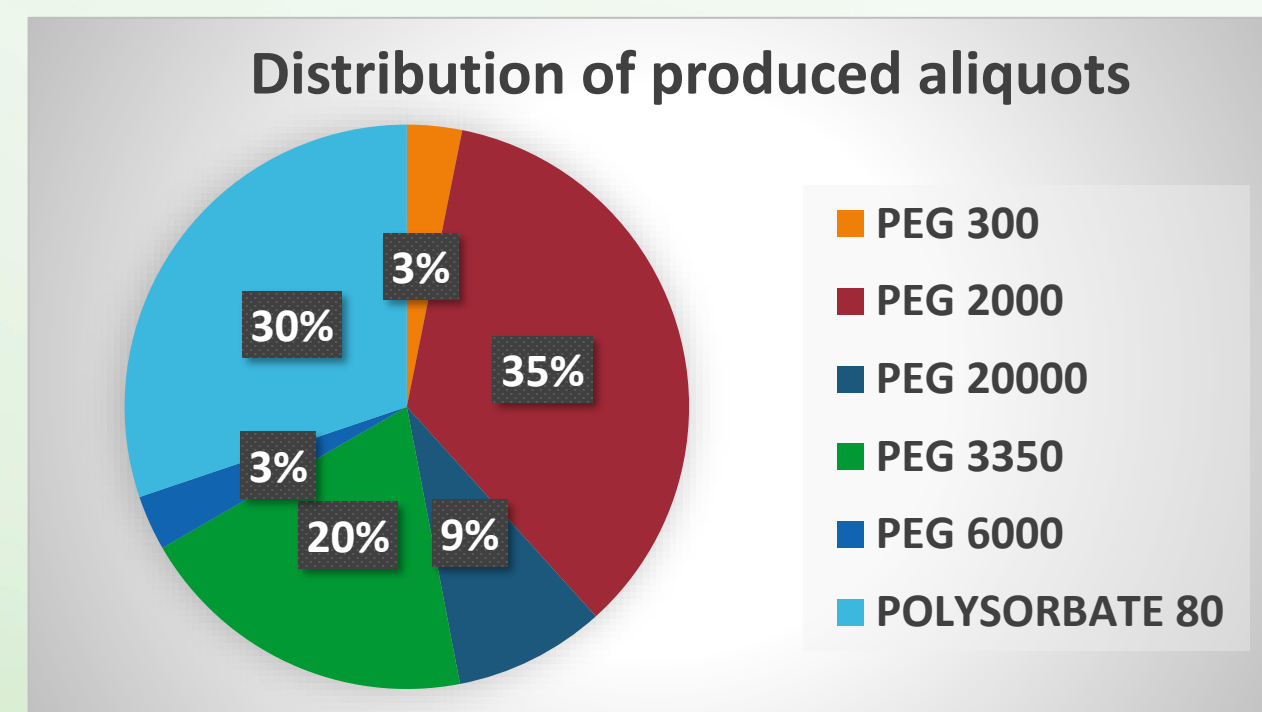
- 1) Weighing of raw materials (PhEur quality) with an analytical balance
- 2) Dilution in 0.9% NaCl
- 3) Mixing under magnetic stirring
- 4) Sterilization of the preparation by filtration at 0.22 µm
- 5) Packaging in microtubes and labeling in accordance with current GMP standards

## Results and discussion

Between february 2021 and August 2022: production of **37 batches** or **656 aliquots**



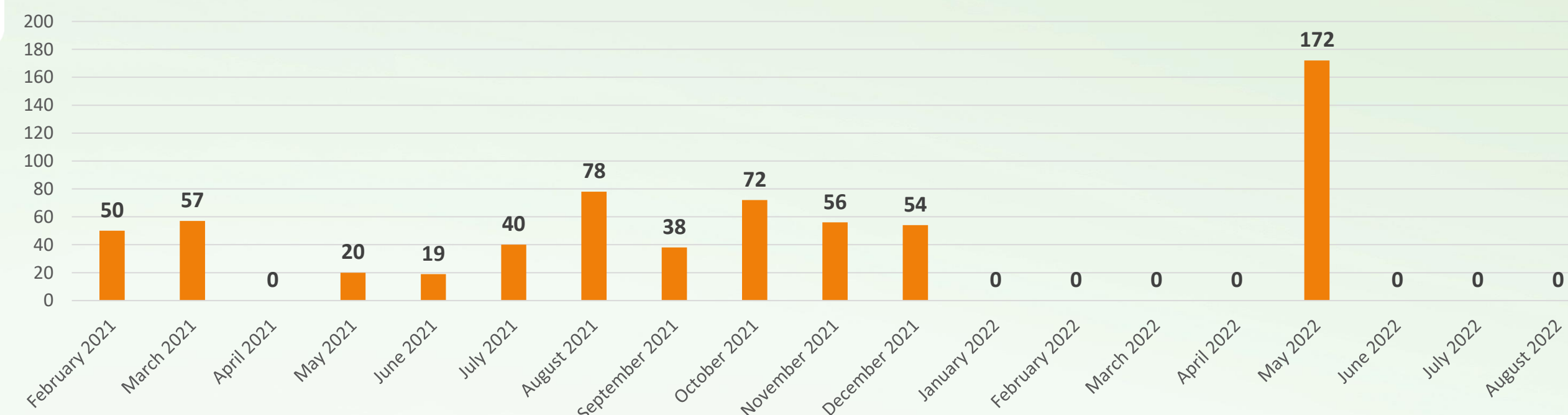
106 h of work for operators  
25,75 h of work for pharmacists



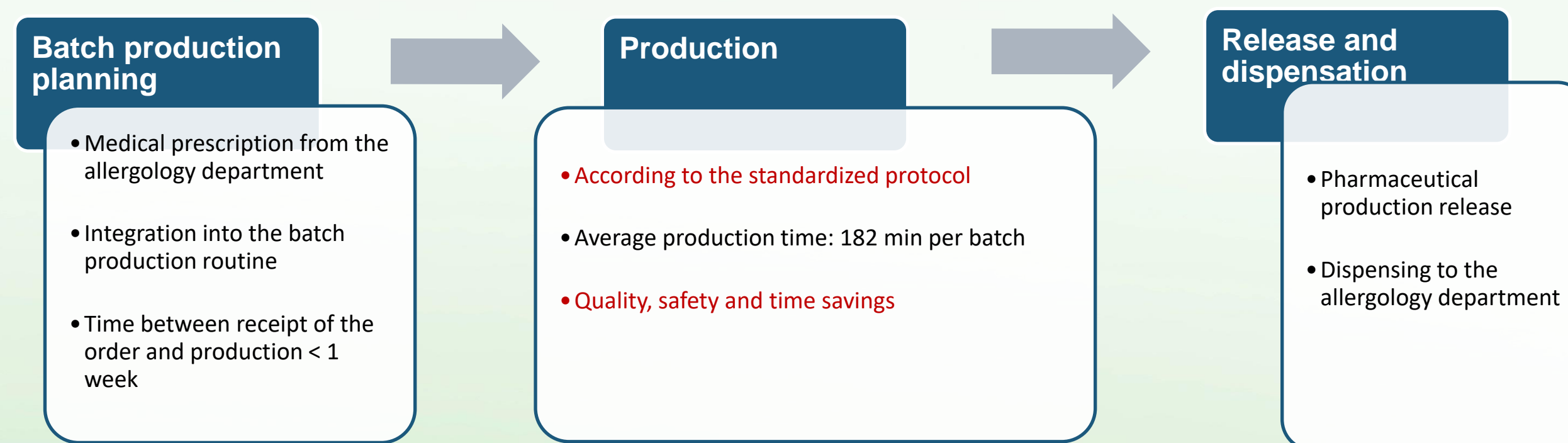
## Conclusions

Thanks to the development of a production method, **the quality** (raw materials) and **the safety** (dose and microbiology) of the aliquots could be guaranteed and the demands were successfully integrated into the routine activity of our pharmacy. These new requests have introduced a new field of expertise and specialization to the production unit.

### Number of aliquots produced after implementation of standardized manufacturing process



### Integration of aliquots into routine activity



## Références

1. Shimabukuro TT, Cole M, Su JR, Reports of Anaphylaxis after Receipt of mRNA COVID 19 Vaccines in the US December 14, 2020 January 18, 2021. JAMA 2021