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## Background and Importance

Tisagenlecleucel is available in 50mL and 250mL frozen bags. It should be thawed at 37 ° C then infused within 30 minutes to maintain cell viability. Thawing time according to volumes is a critical point which is not known

## Aim and objectives

We evaluated in this work the thawing times of Tisagenlecleucel according to volumes.

## Material and methods

Tisagenlecleucel empty infusion bag

Ethylene vinyl acetate EVA,  
50mL empty bag,  
250mL empty bag,

Tisagenlecleucel reconstituted matrix

Plasmalyte A, Dextran 40  
Diméthylsulfoxyde,  
Albumine 20%, G5%, G30%  
NaCl 0.9%, water for injection

### Empty Bag Filled by Matrix

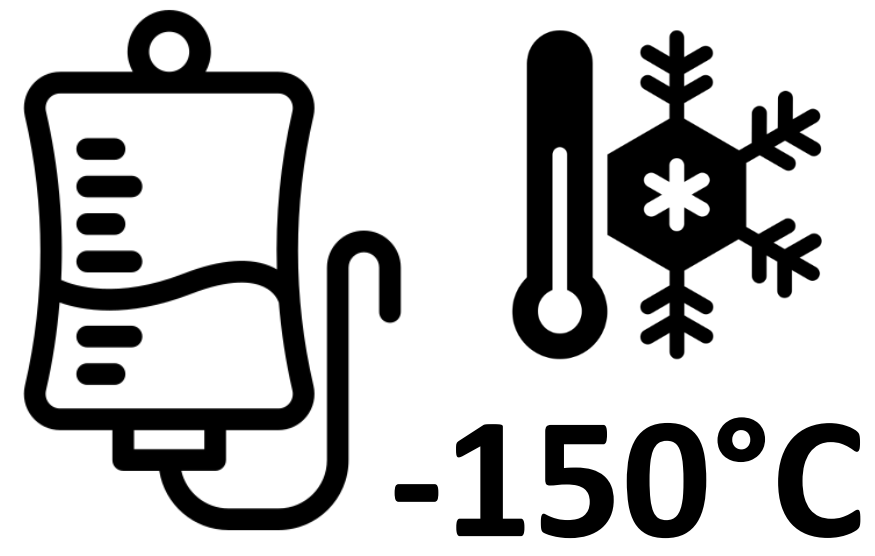
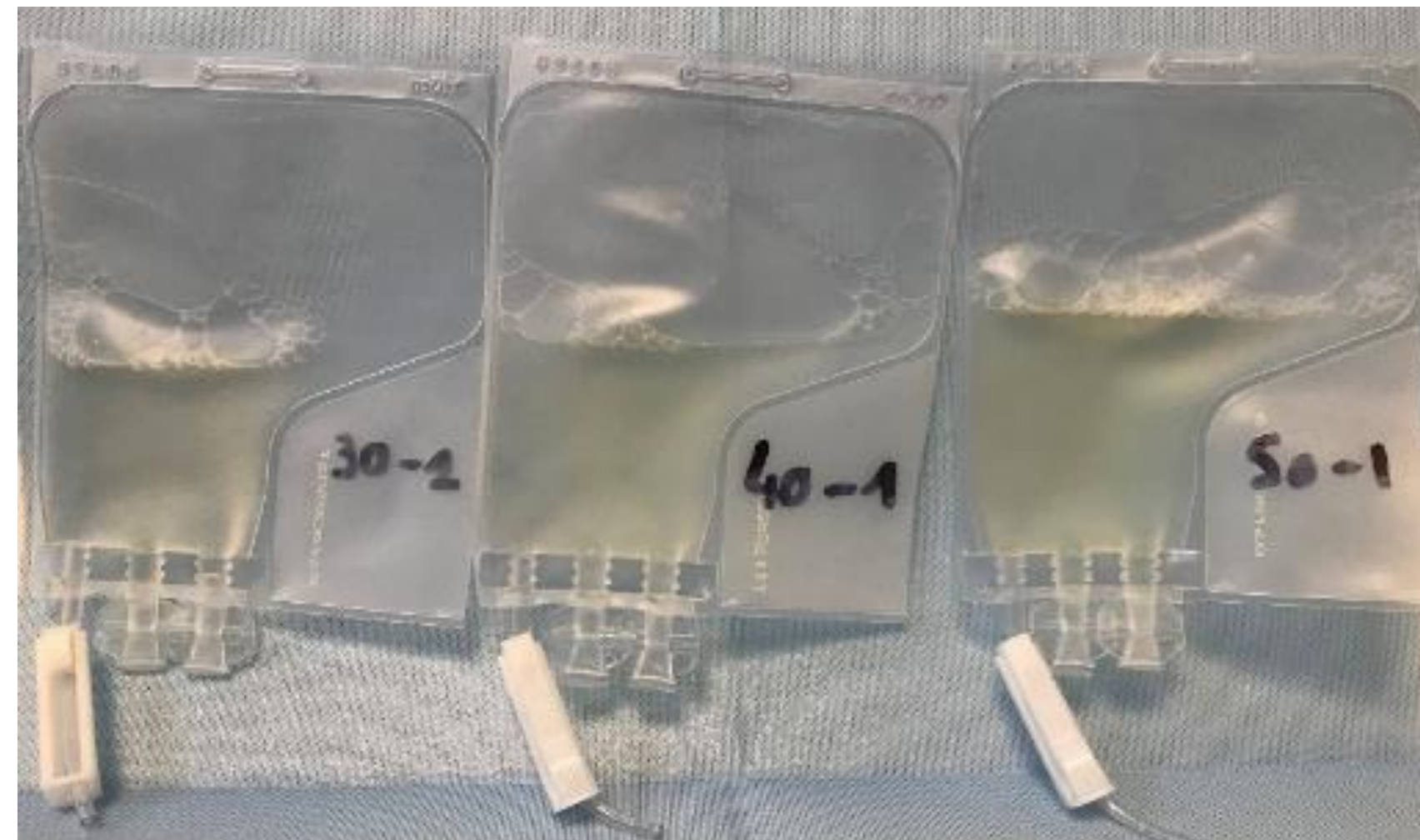
50mL empty bag

10 mL  
20 mL

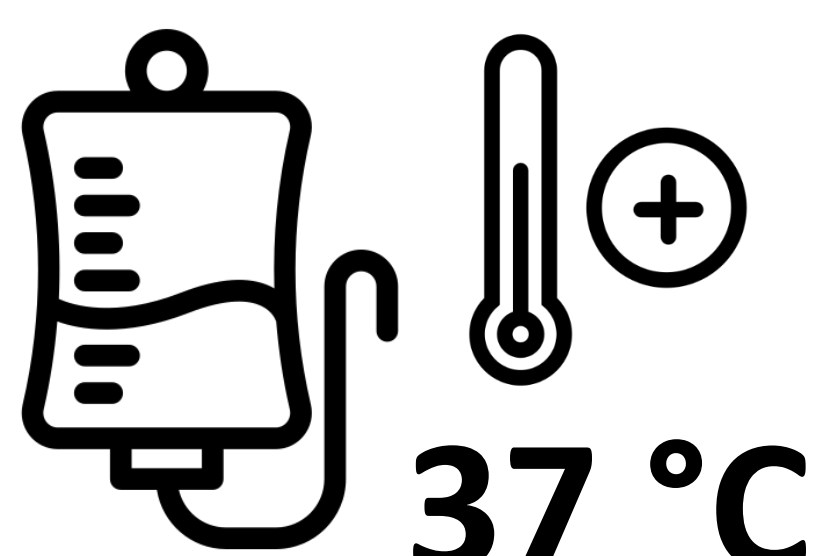


250mL empty bag

30 mL  
40 mL  
50 mL



Frozen then thawed in water bath



Volume of remaining icicles

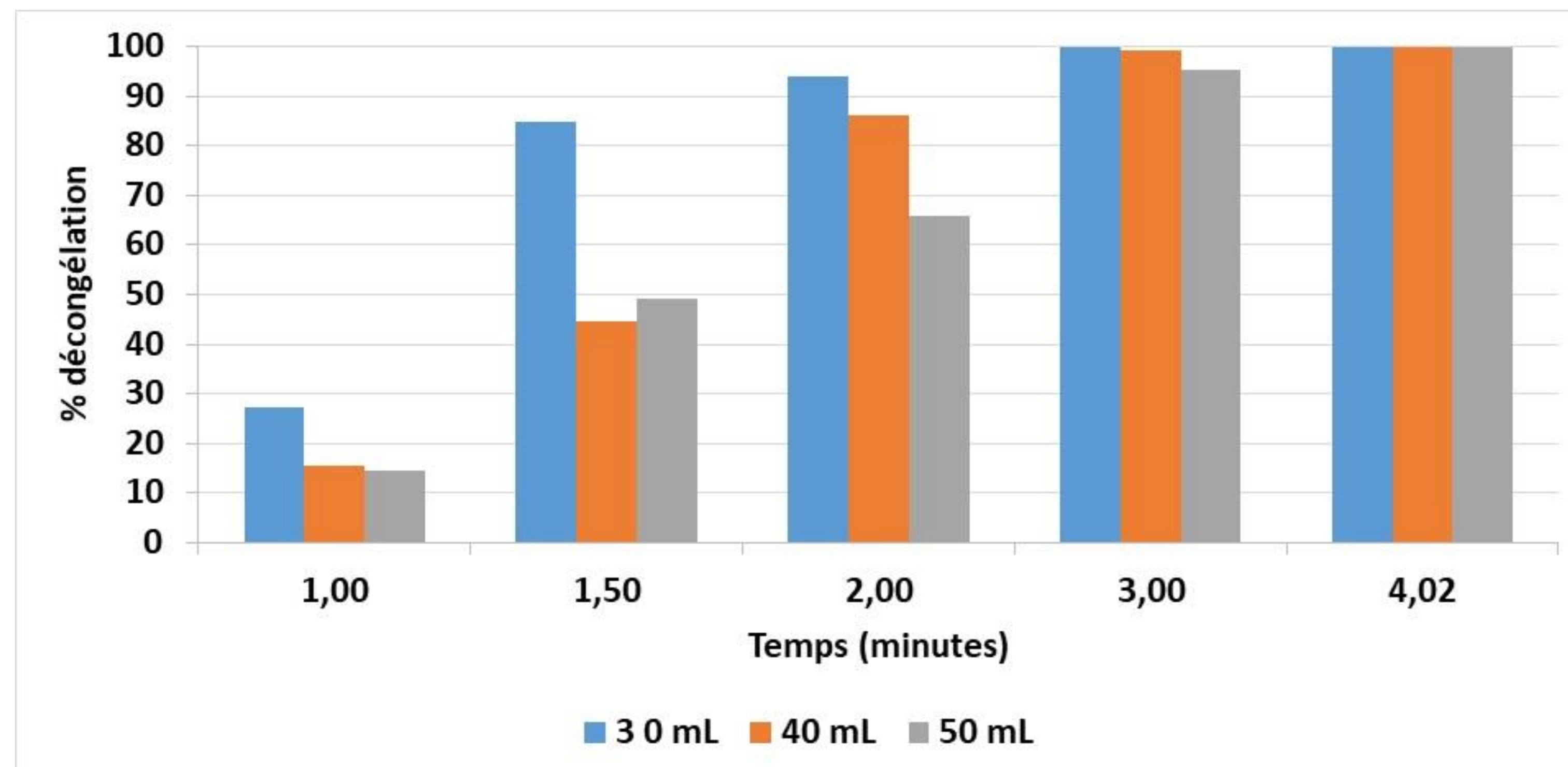
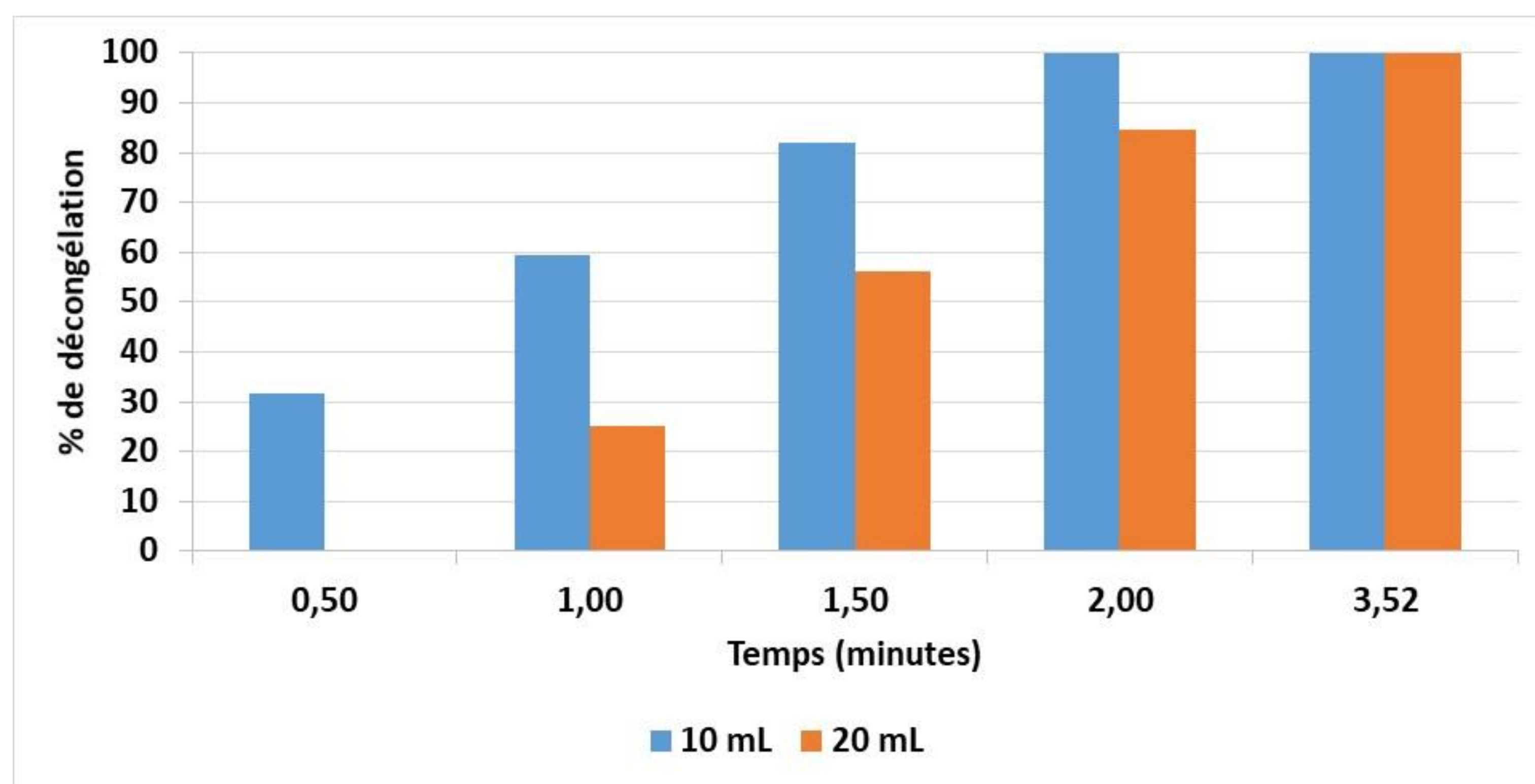
Surface (GeoTool®software) x thickness (calliper)

Time to deliver bags

Two different operators in triplicate

## Results

Complete thawing				
50mL bags		250mL bags		
10mL	20mL	30mL	40mL	50mL
2'04" ± 05	3'31" ± 30	2'35" ± 16	3'41" ± 12	4'00" ± 06



## Conclusion and relevance

Thawing duration may vary by twice as function of volume. Mean lengths provide an optimal organization in a circuit where every minute must to be take into account. Total thawing-addressing time rate between 6.5 and 8.5 minutes, nursing team has almost 20 minutes to administer Tisagenlecleucel



Delivery of thawed bag

4'30" ± 0,21