SECURIZING OF TISAGENLECLEUCEL THAWING AND DELIVERING

R. FABRI1, T. DU REPAIRE1, G. SICARD1, N. AUSIAS2, M. MONTANA2, L. GAUTHIER VILLANO1, B. POURROY1.
1LA TIMONE UNIVERSITY TEACHING HOSPITAL- ASSISTANCE PUBLIQUE - HÔPITAUX DE MARSEILLE, ONCOPHARMA UNIT, MARSEILLE, FRANCE.
2NORTH UNIVERSITY TEACHING HOSPITAL- ASSISTANCE PUBLIQUE- HÔPITAUX DE MARSEILLE, ONCOPHARMA UNIT, MARSEILLE, FRANCE.

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%
NaC1 0.9%, water for injection

Results

<table>
<thead>
<tr>
<th>Volume (mL)</th>
<th>Time to deliver bags (± sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2'04''± 05</td>
</tr>
<tr>
<td>20</td>
<td>3'31''± 30</td>
</tr>
<tr>
<td>30</td>
<td>2'35''± 16</td>
</tr>
<tr>
<td>40</td>
<td>3'41''± 12</td>
</tr>
<tr>
<td>50</td>
<td>4'00''± 06</td>
</tr>
</tbody>
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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