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## BACKGROUND

The Unit of Clinical Pharmacy and Oncology manufacture chemotherapy preparations for homecare patients. The unit has to ensure the quality of chemotherapy preparation until its administration to the patient.

That implies the guarantee of the **maintenance of optimal conditions for conservation of treatments during their transport.**

## PURPOSE

- The aims of this study were:
- ✓ to assess the current thermal performances of 10 coolers used to the transport of chemotherapy preparations
  - ✓ to compare to those provided by the manufacturer.

## MATERIALS AND METHODS

- ☐ Verification of the thermal performances on a test load under practical conditions of use
  - the timer is triggered when the two cold packs, the test loader and the temperature sensor are placed in the cooler.
  - coolers remain closed during experience
  - coolers tested are type MT 4 company Dometics



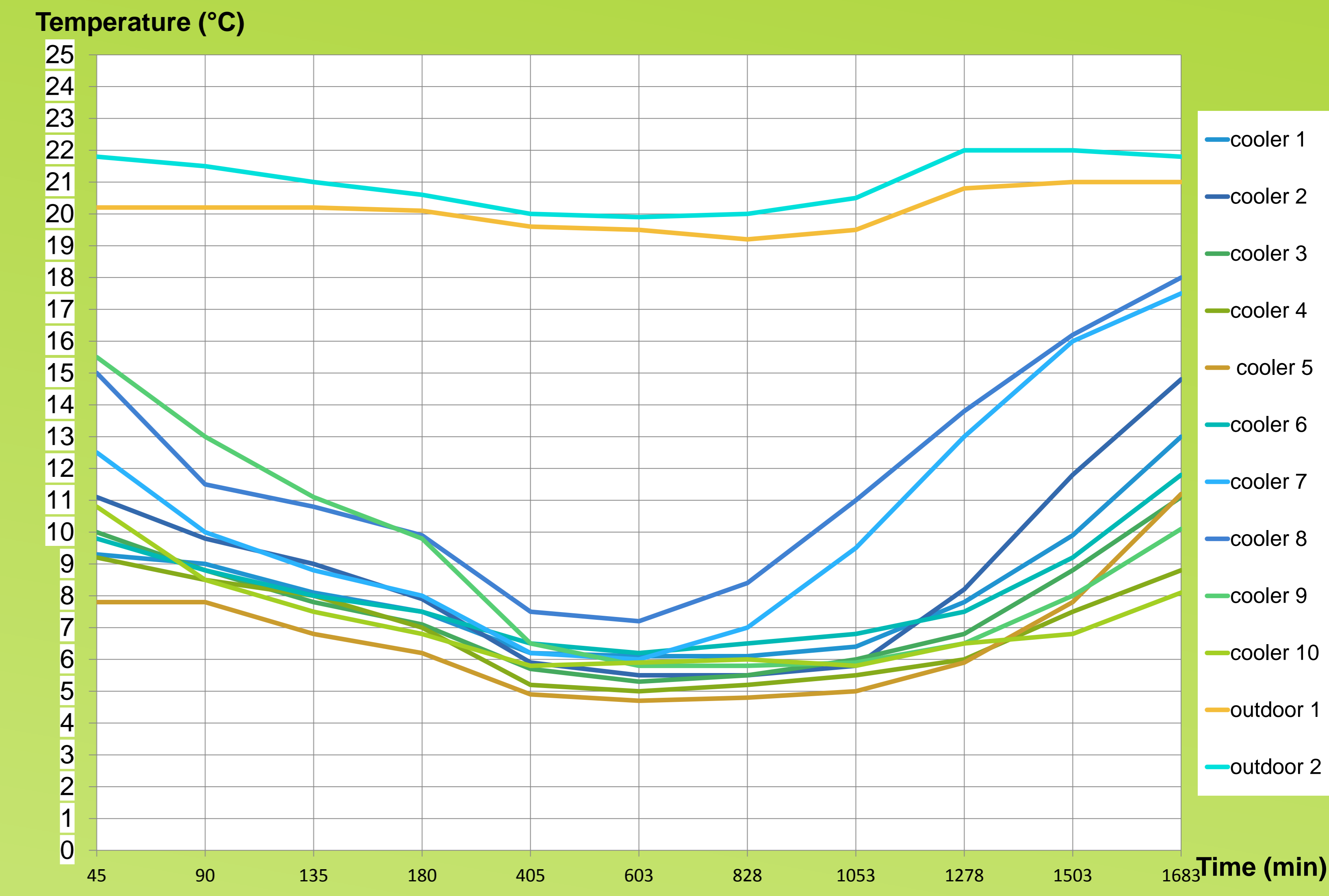
- ☐ Two parameters were analysed:
  - the time **t** required to obtain the optimum temperature in the cooler
  - the time **t'** for which the cooler was at an optimum temperature.

☐ The qualification method was defined by the **Afnor standard NFS99700.**

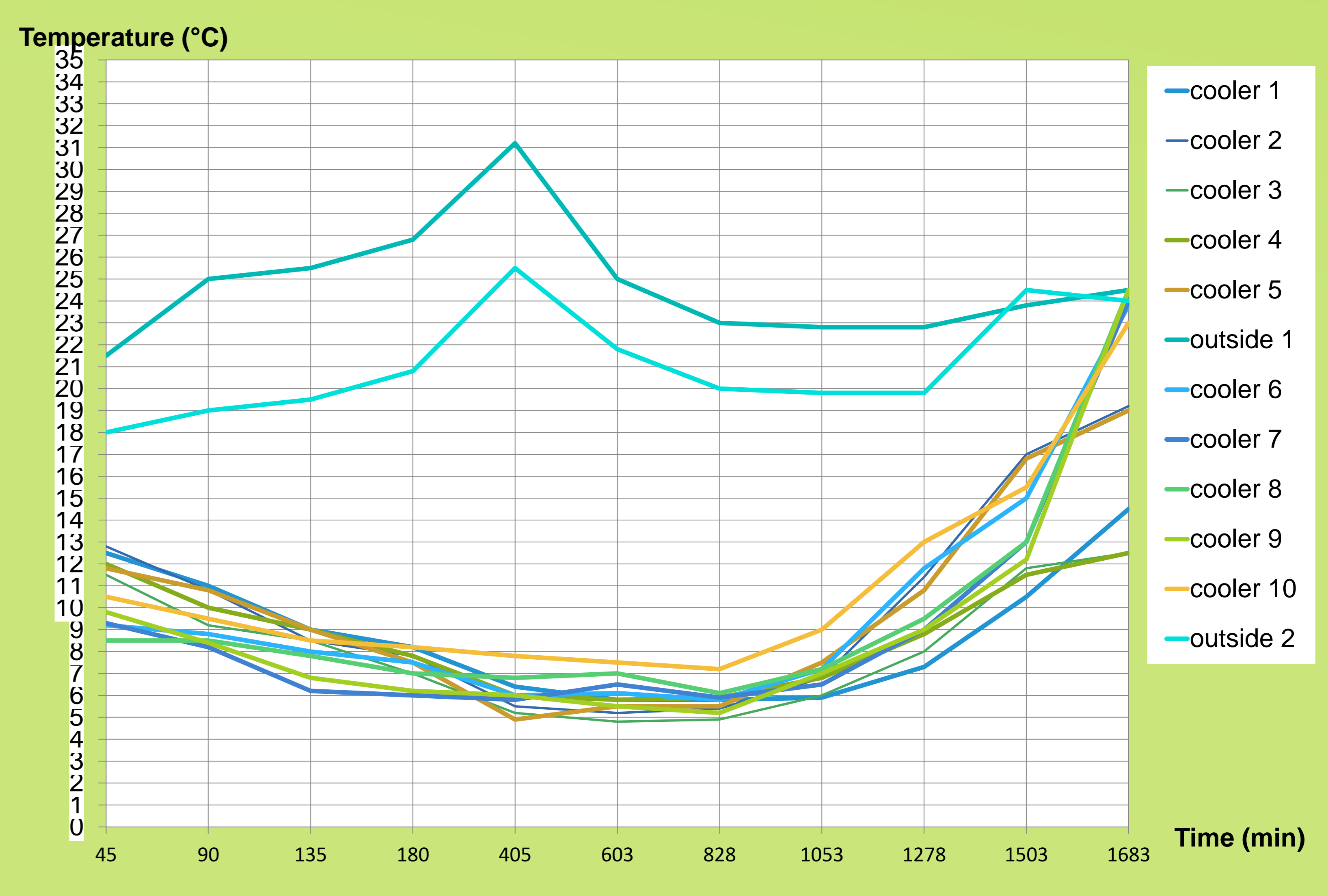
☐ The tests were performed **in duplicate.**

## RESULTS

### In the temperature conditions of pharmacy



### In the temperature conditions outside of pharmacy



### Measured data versus Manufacturer data

Outdoor temperatures (°C)	Mean t (measured)	Mean t' (measured)	Mean t' (manufacturer data)
[20 – 32]	2h22mins	17h33mins	24h (at T= 32°C)
[20 -21]	2h45mins	19h51min	46h (at T= 20°C)

☐ In both outside temperatures conditions, **the time t'** (thermal performances of the coolers) measured is **significantly lower than the values provided by the manufacturer.**

☐ **The time** required to obtain the optimum temperature in the cooler (**t**) under manufacturing unit conditions **was 2 hours 45 minutes.**

## DISCUSSION-CONCLUSION

**The current thermal performance of the coolers is lower than that provided by the manufacturer.**  
 An update of the procedure for preparing containers for treatments of homecare patients has been performed.  
 An annual review of the coolers is being contractualisation.