

# Impact of team analysis and discussion moments on treatment quality and outcomes

Sílvia Caldeira<sup>1</sup>, Fernanda Gomes<sup>1</sup>, Bruno Pinto<sup>2</sup>, Carina Gonçalves<sup>1</sup>, Ricardo Peralta<sup>2</sup>, João Fazendeiro Matos<sup>2</sup>

<sup>1</sup>Fresenius Medical Care, Dialysis Centre NephroCare, VFXira – Portugal; <sup>2</sup>Fresenius Medical Care, NephroCare Portugal, Porto – Portugal

## Introduction

For an efficient and effective dialysis treatment various objectives have to be achieved, impacting the patients' quality of life.

Several studies show that optimisation of treatment parameters such as dialysed blood volume, substitution fluid volume, treatment time, Kt/V, etc., have a significant impact on morbidity and mortality.

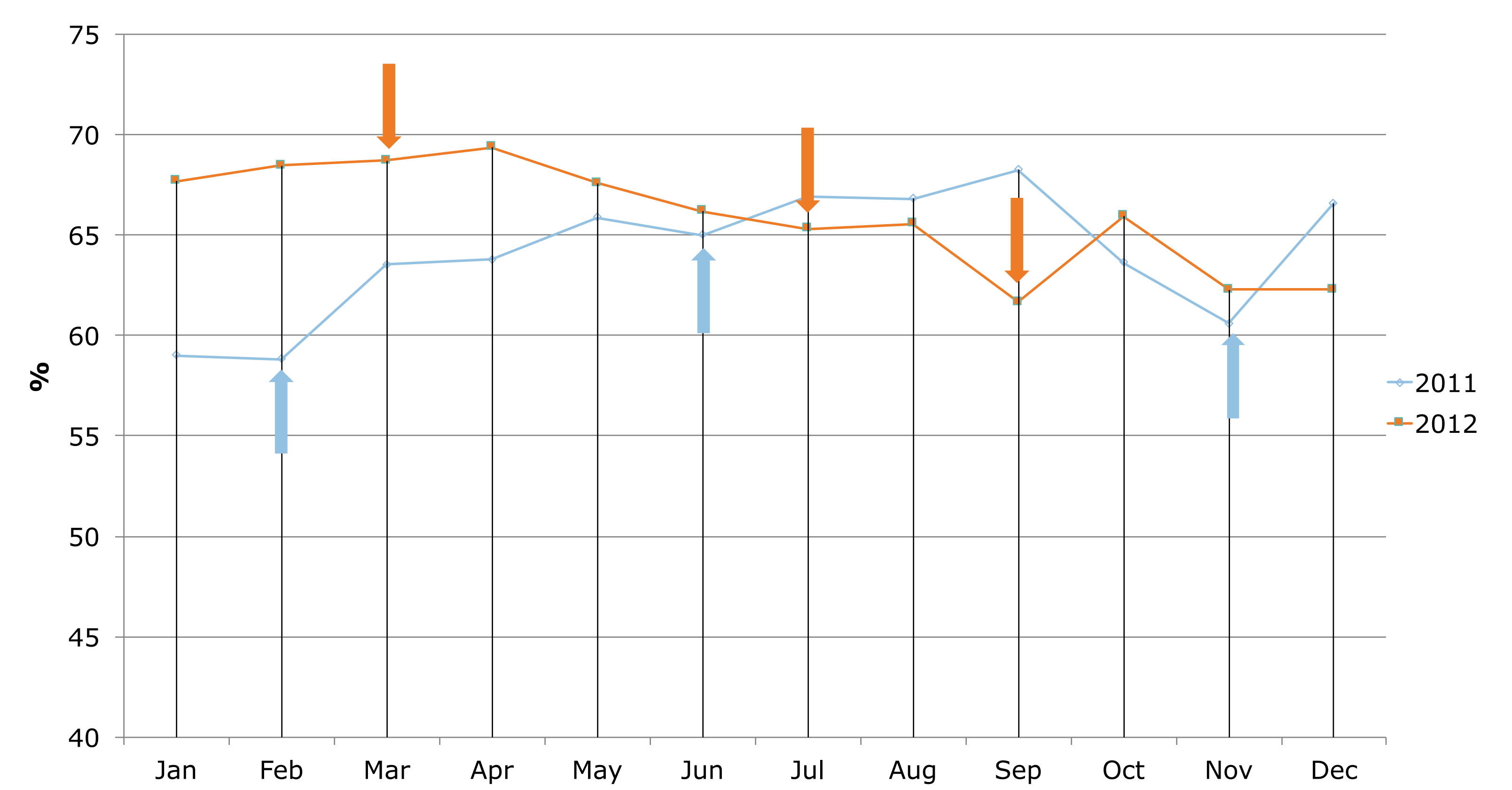
Awareness amongst healthcare professionals regarding the goals and achievements may have impact on patient outcomes.

## Objectives

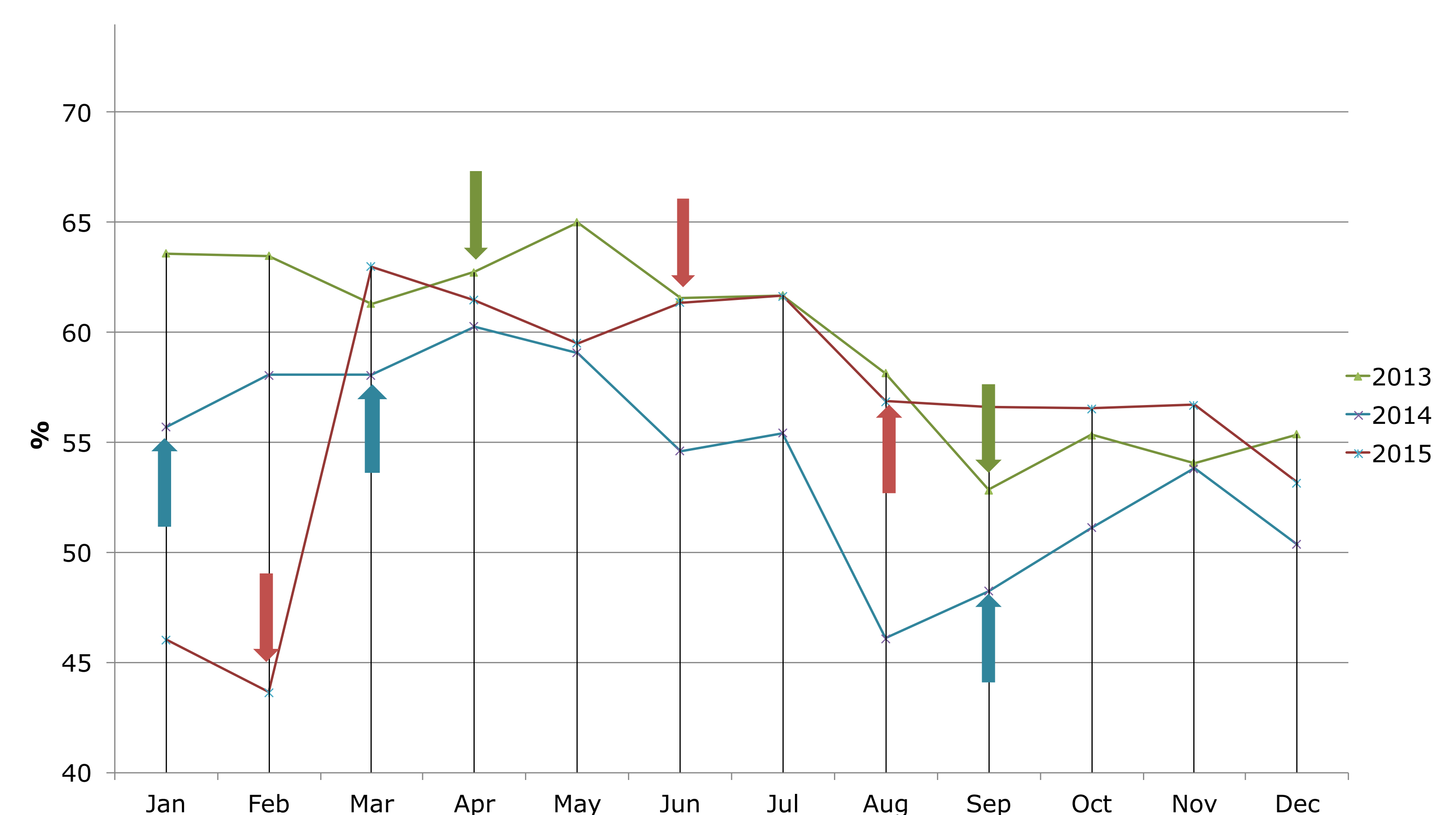
- To define patient outcomes between the multidisciplinary team
- To evaluate patient outcomes
- To assess how the evaluation moments influence the results
- To discuss and implement corrective measures in patients with inferior results.

## Methods

- Defined goals:
  - ✓ Treatment time:  $\geq 240$ min, 3 times/week
  - ✓ Substitution fluid volume:  $\geq 20$ L
  - ✓ Blood flow rate (Qb) optimisation according vascular access (VA) pressures,  $P_{art} \geq -220$  mmHg and  $P_{ven} \leq 270$  mmHg
  - ✓  $spKt/V \geq 1.4$ .
- Initial healthcare team training
- Monthly review about the achieved goals over a period of five years (2011/2015):
  - ✓ Percentage score of treatments that achieved all objectives (trt.OK)
  - ✓ Impact of each team analysis/discussion on the achievement of treatment score (trt.OK)



Graph 1: Trt.OK first two years



Graph 2: Trt.OK last three years

## Results

During the monthly review over a period of five years, after each team analysis/discussion, we found:

- An increase in the percentage of trt.OK
- During the first year, after the training month, the average increase of trt.OK was higher (4.9%) and remained stable in the following three years ( $\pm 2.0\%$ ). In the fifth year we observed the highest increase (5.9%)
- Annual reviews showed that after three months of each team analysis/discussion, there was a trend for decreasing percentages of trt.OK.

## Conclusions

Team involvement in the analysis/discussion of results is fundamental to achieve the target treatment parameters.

A routine analysis/discussion of all implemented practices seems to be important for the accomplishment of continuous improvements.

The awareness of the healthcare team about the target goals tends to decrease over time.

A well-trained and motivated team seems to be beneficial, increasing the number of treatments that achieve all objectives.

## References

1. CHAPDELAIN, Isabelle, et al. Optimization of the convection volume in online post-dilution haemodiafiltration: practical and technical issues. *Clinical kidney journal*, 2015, 8.2: 191-198.
2. DAUGIRDAS, John T.; BLAKE, Peter Gerard; ING, Todd S. (ed.). *Handbook of dialysis*. Lippincott Williams & Wilkins, 2007.
3. CANAUD, Bernard, et al. Optimal convection volume for improving patient outcomes in an international incident dialysis cohort treated with online hemodiafiltration. *Kidney international*, 2015.
4. MARCELLI, Daniele, et al. High-Volume Postdilution Hemodiafiltration Is a Feasible Option in Routine Clinical Practice. *Artificial organs*, 2015, 39.2: 142-149.
5. MADUELL, Francisco, et al. High-efficiency postdilution online hemodiafiltration reduces all-cause mortality in hemodialysis patients. *Journal of the American Society of Nephrology*, 2013, 24.3: 487-497.