

# Therapy-oriented system connects the dialysis world and information technology

Corina Popescu<sup>1</sup>, Raluca Scutelnicu<sup>2</sup>, Mihai Preda<sup>3</sup>

<sup>1</sup>Fresenius Medical Care, NephroCare Bucharest, Romania, <sup>2</sup> Fresenius Medical Care, NephroCare Marketing Manager Bucharest, Romania, <sup>3</sup> Fresenius Medical Care, NephroCare Clinical Coordination Bucharest Romania

## Introduction

A Romanian private haemodialysis network should adapt to the growing number of patients. The challenge was to find ways to deal with the increasing time pressure and additional tasks for medical staff. The smart solution was found in one of the newest IT and communication systems technology. An integrated patient therapy-oriented system for data management was successfully implemented already in 18 dialysis units and will continue to be implemented in all the other 18 clinics of the Romanian network.

## Objectives

To provide the medical staff with the right IT technology to facilitate data input and data processing while simultaneously increasing efficiency.

## Methods

The system was connected to scales, dialysis machines, blood pressure monitors, and blood gas analysers. Patient cards play a central role as a form of identification and storage medium for information about prescription and treatment data.

Automatic recording of the pre/post-dialysis patient weight  
Integration of peripheral devices

Improved workflow through bed-side exchange monitoring panel.

Automatic session closing based on configurable mandatory conditions:

- Post-Weight measured
- Blood Pressure pre/intra and post treatment measured
- All medication confirmed
- All To Do's confirmed
- All Consumables confirmed
- All messages confirmed

Automatic treatment documentation in clinical database

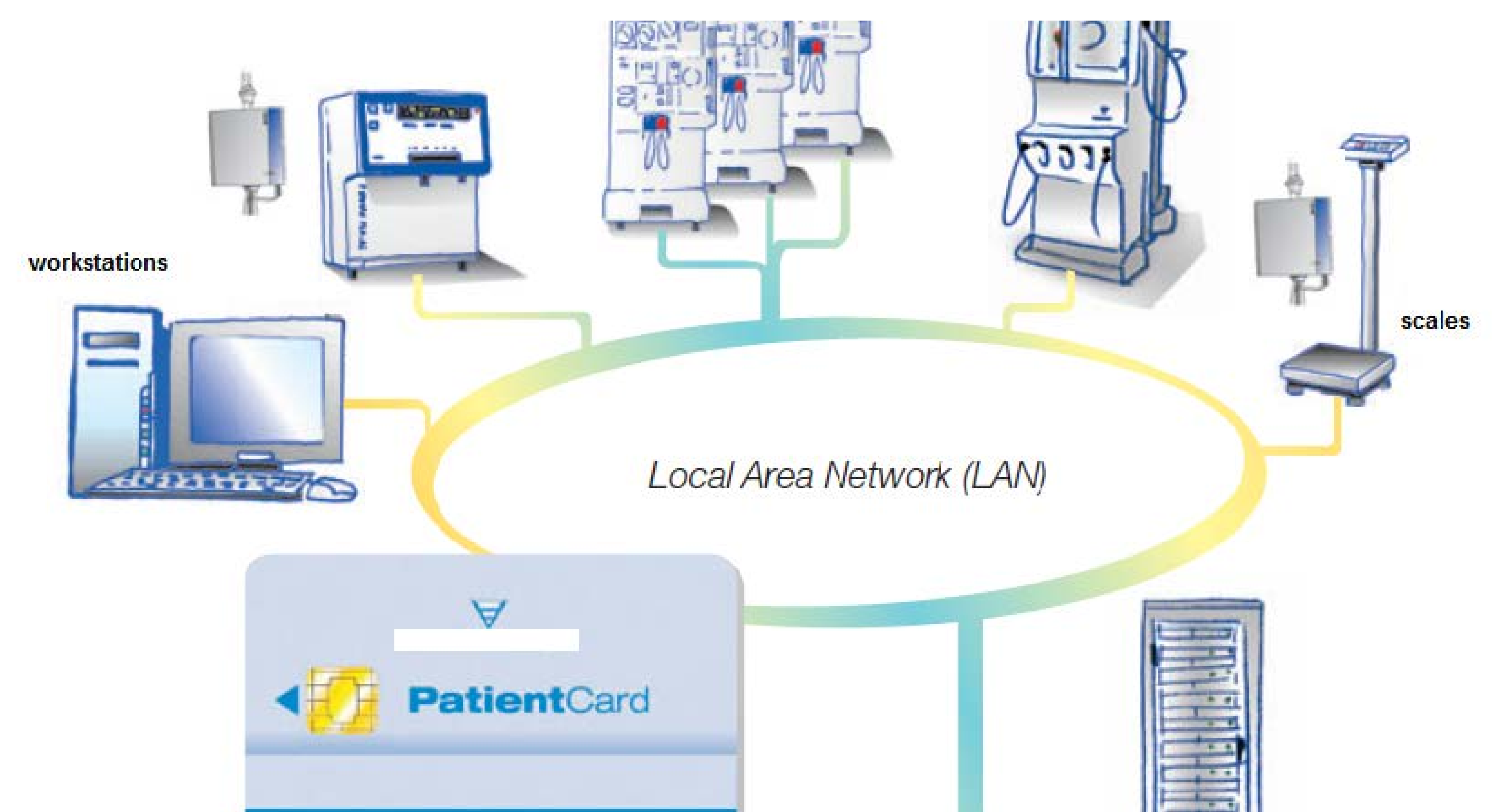
## Results

All 18 clinics achieved the following goals:

- Medical data at a glance
- Increased accuracy of compiled data
- Optimisation of resources and therefore more time for patient care

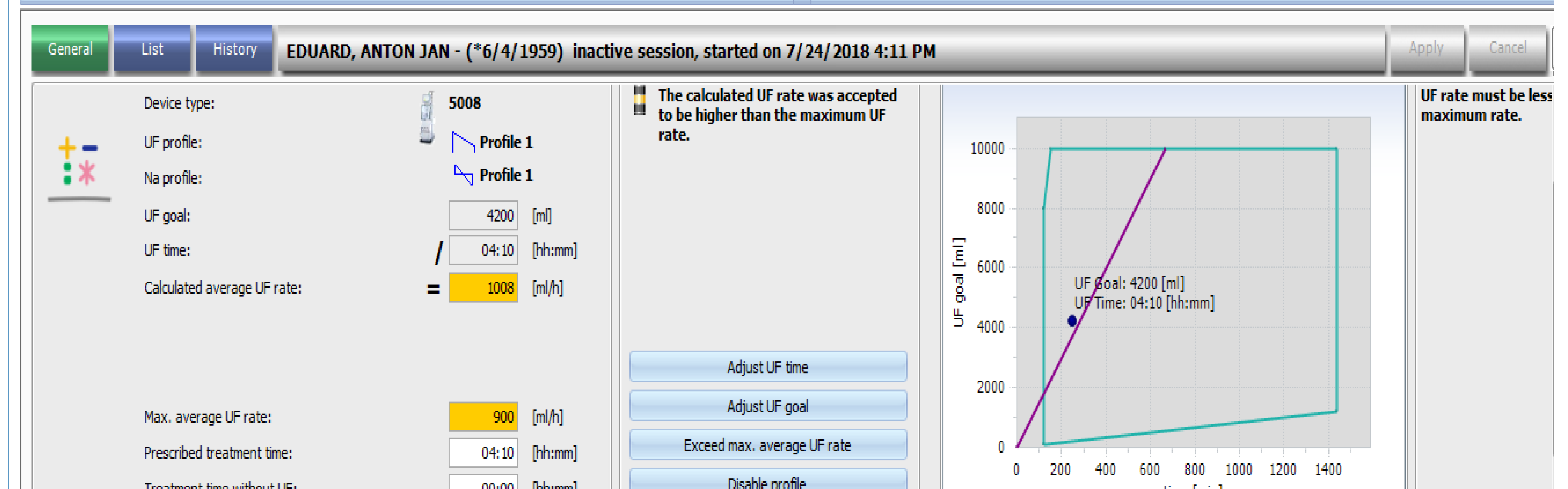
## Conclusion

The therapy-oriented system proved to be a reliable and flexible solution ensuring an effective and safe support of our day-to-day work in our dialysis clinic. We can obtain maximum accuracy and efficiency in real time if we react fast enough in this amazing world of state-of-the-art technology. Patients, medical staff, shareholders, community take advantages from this therapy oriented management system.



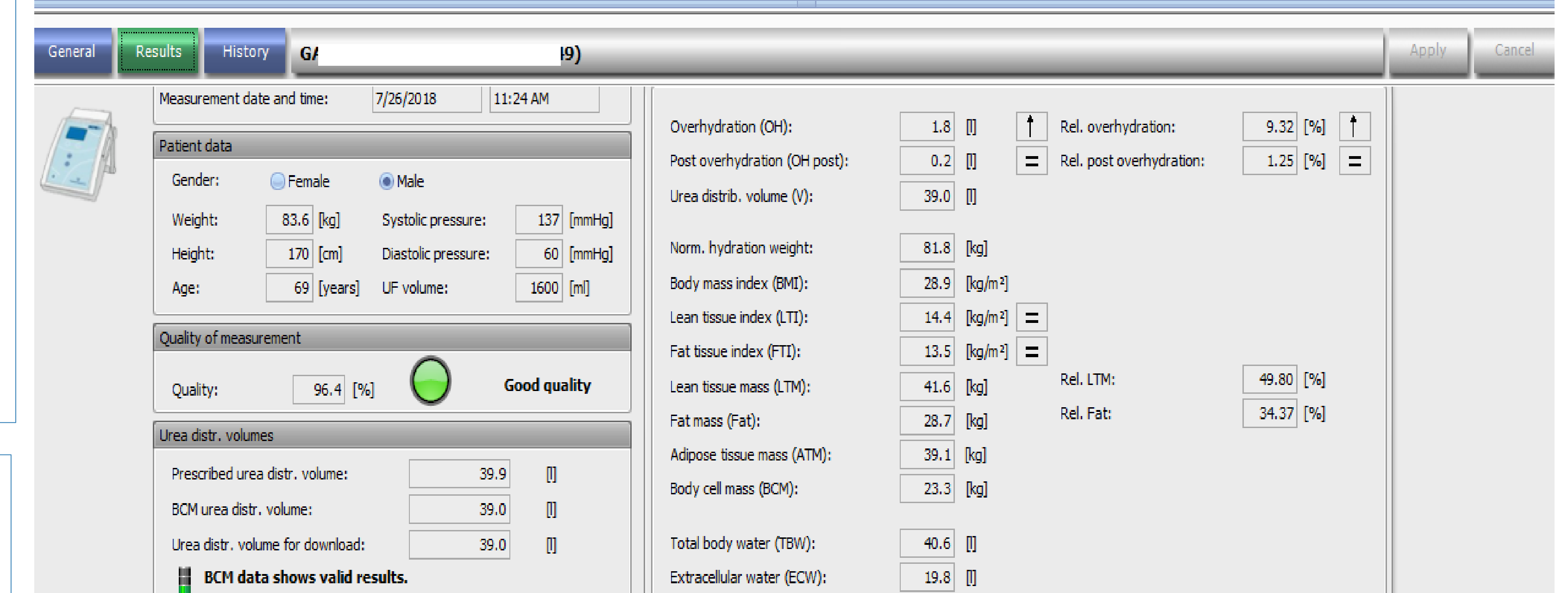
Therapy oriented system technology

Name	Pre Weight	UF	BCM	Prescription	Down	Progress	Blood Pres	Custom View	Consumables	To Do	Medica	Events	Efficiency	Risks	Message	Post Weight	External Lab	Treatment	Dialy
DORO...	63.3/61.0			HDF					153/75				1.71/1.4			61.8/1.5		Online	FX CoDi
EDUAR...	89.2/85.0			HDF					119/54				1.6/1.4			85.8/3.4		Online	FX CoDi
ENACH...	88.7/86.5			HDF					124/68				1.64/1.4			87.1/1.6		Online	FX CoDi
FILIP...	83.5/82.5			HD					153/64				1.77/1.4			82.8/0.7		Online	FX CoDi
GRIGO...	49.5/48.0			HD					149/58				2.54/1.4			48.3/1.2		Online	FX CoDi



UF Control Function

Name	Pre Weight	UF	BCM	Prescription	Down	Progress	Blood Pres	Custom View	Consumables	To Do	Medica	Events	Efficiency	Risks	Message	Post Weight	External Lab	Treatment	Dialy
CAL	89.4/85.0			HDF		08:33	15:18		134/84				1.86/1.4			--/--		On	On
CAL	67.7/66.5			HDF		06:58	15:44		118/59				1.86/1.4			--/--		On	On
DRA	126.2/125.0			HDF		06:48	15:29		136/73				1.29/1.4			--/--		On	On
GAR	83.6/81.0		BCM	HD		06:58	15:45		139/56				1.17/1.4			--/--		On	On



Hydration Status Control Function

## References

1. Fresenius NephroCare policy
2. Print screen from the treatment database of Fresenius NephroCare