

HIGH SURVIVAL RATE AND COMPREHENSIVE REHABILITATION IN AN OPTIMAL DIALYSIS SETTING

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INTRODUCTION AND AIMS

Dialysis technology, quality and outcomes have been under continuous pursuit of excellence.

We report clinical data from an independent dialysis center in which several different approaches toward an ideal hemodialysis treatment have been successfully addressed in the last 5 years.

Only *incident* hemodialysis patients were studied in order to avoid any carryover effect from the previous treatment modality and the selection bias toward survivors.

METHODS (I)

PATIENTS CHARACTERISTICS

Thirty-eight consecutive unselected incident hemodialysis patients treated in an *exclusive* short daily in-center hemodialysis program (1.5-2.5h, 6 to 7 times a week, 300 ml/min blood flow, 700 ml/min dialysate flow):

- 20 males/18 females from our predialysis care
- 57.9±21.0 [10-93] yrs mean age
- 72% FAV rate at dialysis initiation
- 34.3% prevalent diabetes mellitus
- 28.1±10.6 (3-48) months follow up

Data are expressed either as Mean±SD or Percentage.

METHODS (II)

CBN DIALYSIS CHARACTERISTICS

- Round-trip *patient* transportation
- 24-stations *comfortable* environment
- 5-treatment shifts *options* per day
- Ultrapure dialysate (*heat disinfection water treatment, PEX looping and individual ultrafilter*)
- Single-use high-flux Gambro dialyzer
- Exercise program
- High staff/patient ratio (1 present nephrologist, 1 dietitian, 1 psychologist, 2 nurses and 4 technicians for each group of 12 patients)

RESULTS

Analysis from the most recent data shows:

GENERAL OUTCOMES

- 78.5% employment rate of working-age patients
- 21.8% on anti-hypertensive medications
- 2.1% missing sessions
- 4.3 days/patient-year hospitalization rate

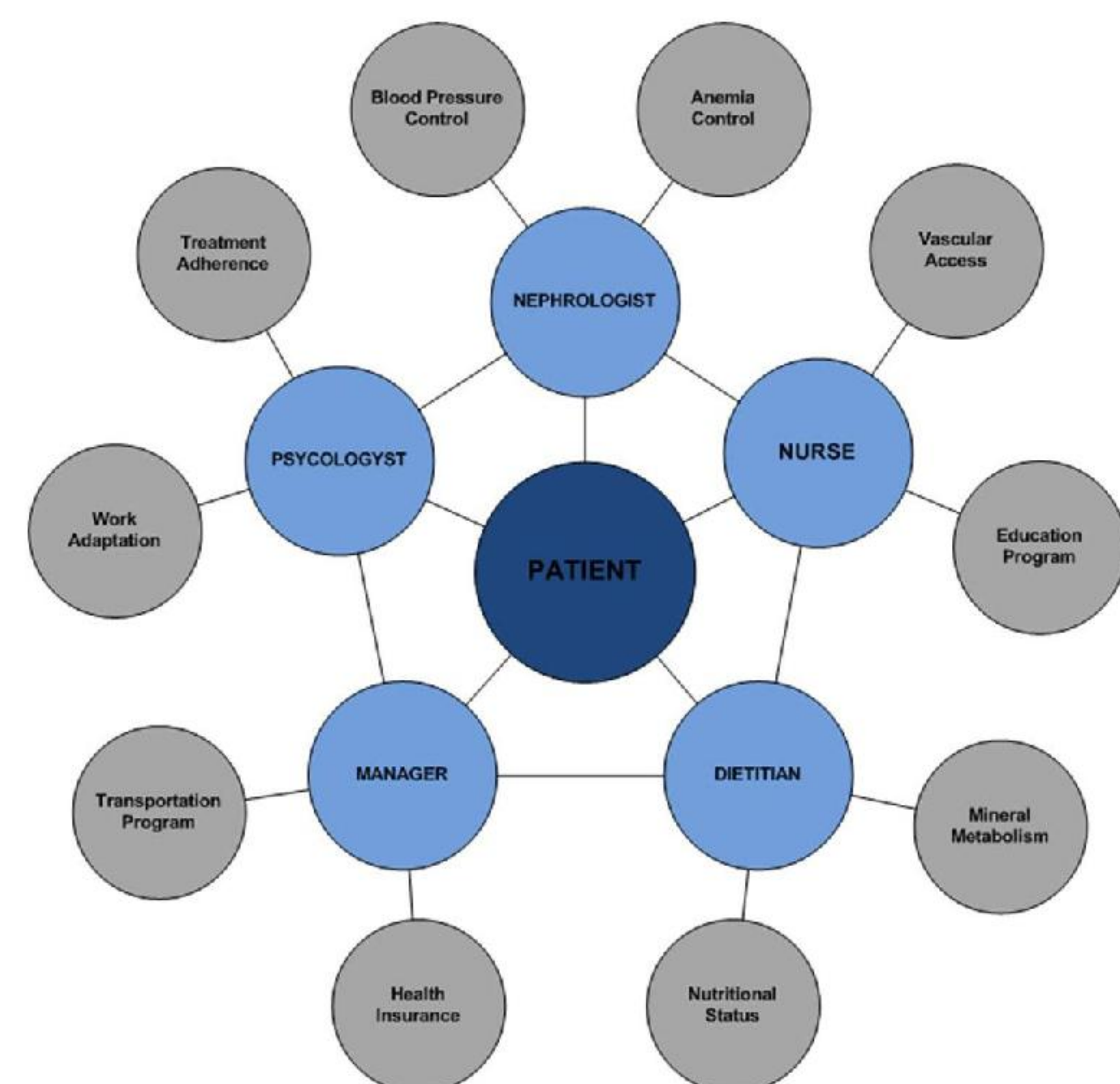
DIALYSIS PROFILE

- 1164±642 ml/session UF rate, 0.50±0.07 URR
- 5840±4394 UI/week ESA dose, 11.9±1.8 g/dl Hb
- 9.2±1.0 mg/dl Ca, 4.7±1.4 mg/dl P, 205±210 pg/ml PTH
- 4.0±0.6 g/dl Alb, 19.7±8.4 mg/l β2-M and 7.7±6.4 mg/l CRP

FOLLOW UP

- Six patients underwent successful renal transplantation
- One 74-yo pt has died of lung cancer after 38 m on dialysis
- Thirty-one patients remain on short daily hemodialysis

CBN INTERDISCIPLINARY PREDIALYSIS CARE



Adapted from Sijpkens et al
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CBN STRUCTURE

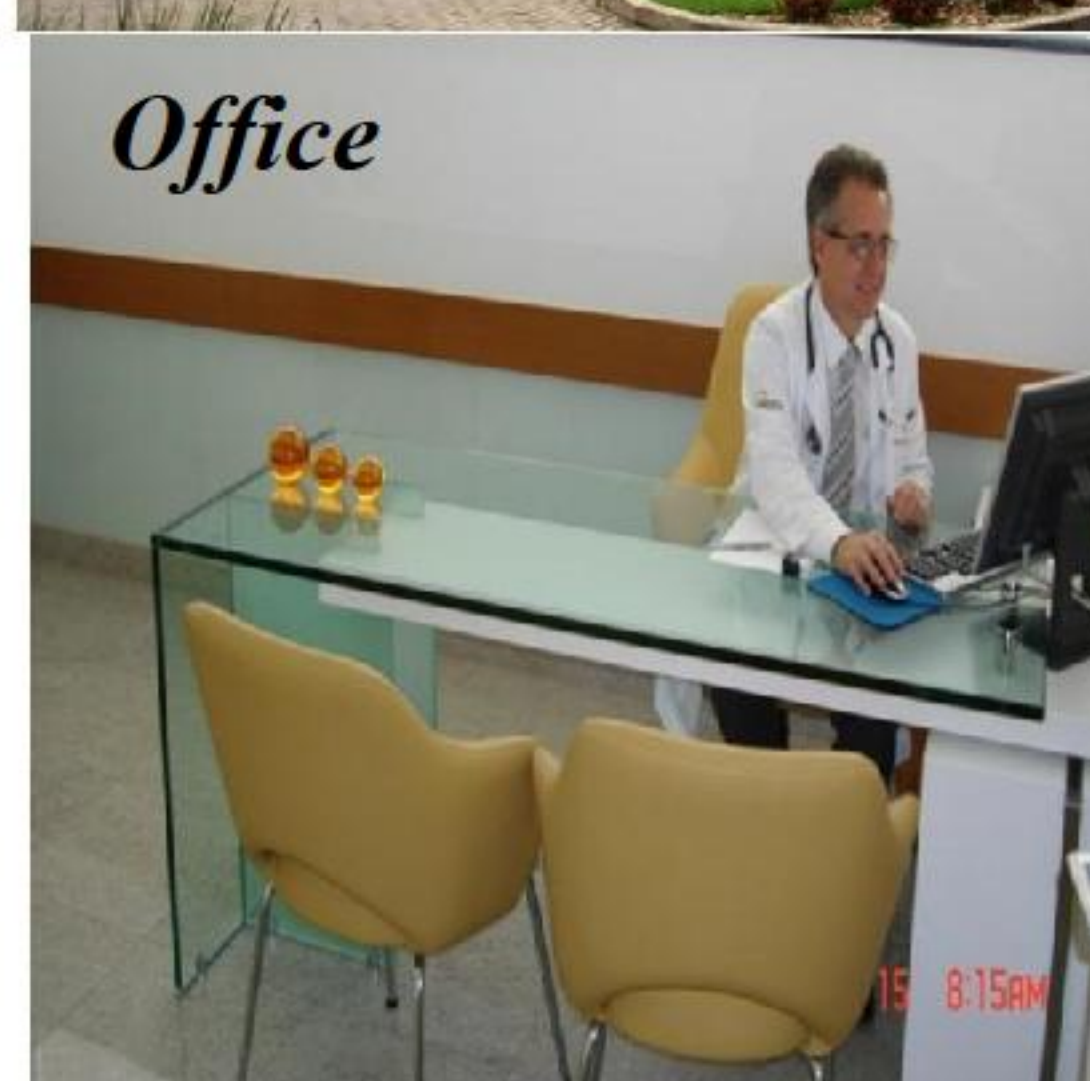
CBN Building



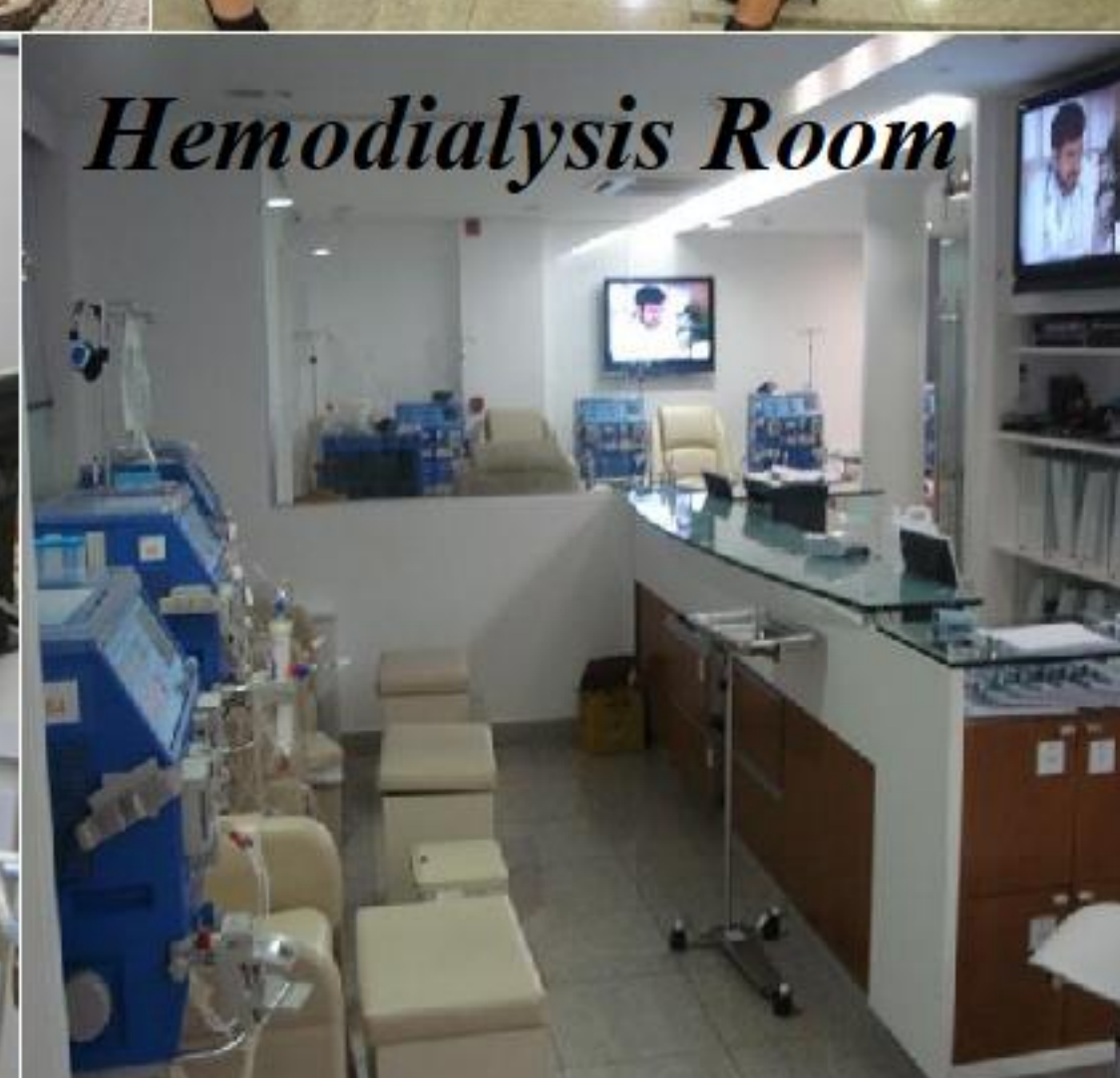
Entrance



Office



Hemodialysis Room

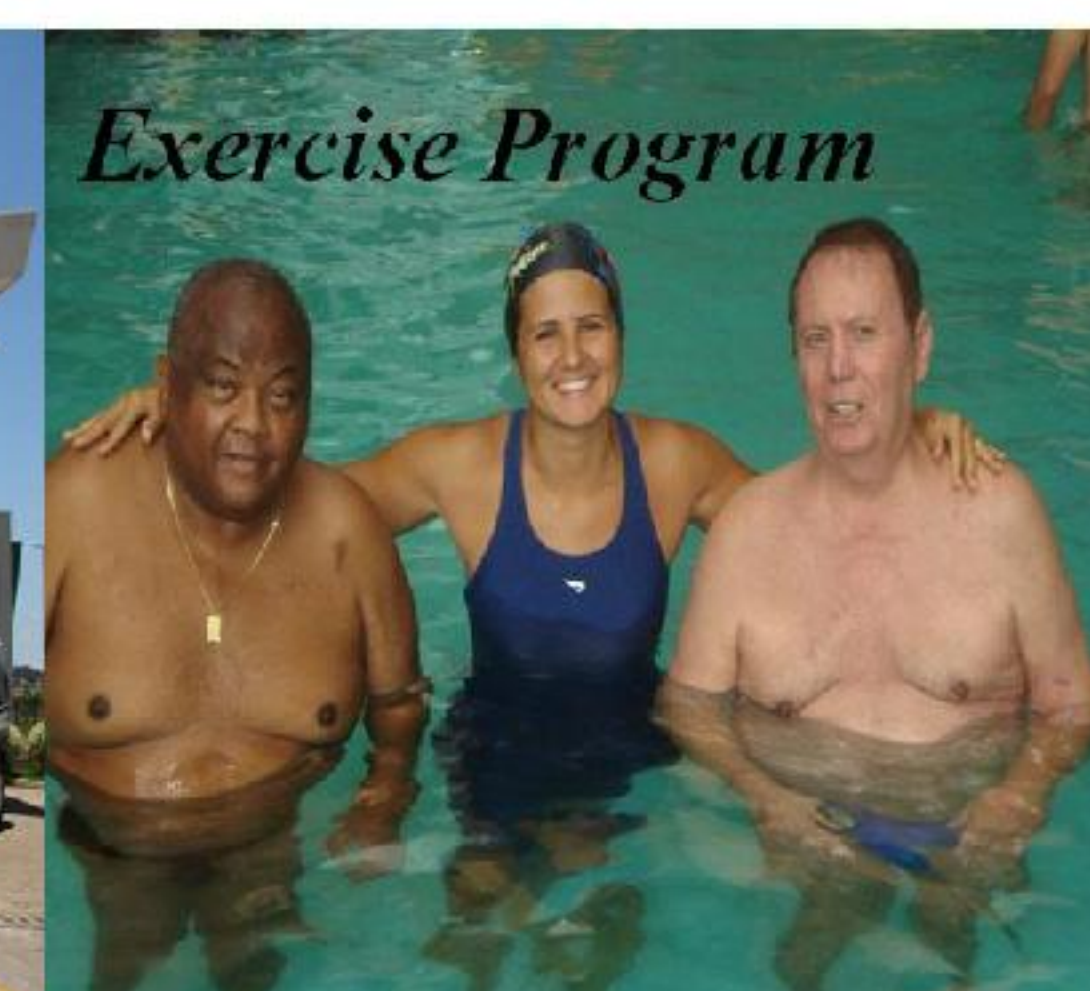


CBN SPECIAL PROGRAMS

Transportation



Exercise Program



Interdisciplinary Care



Occupational Therapy



CBN WATER TREATMENT

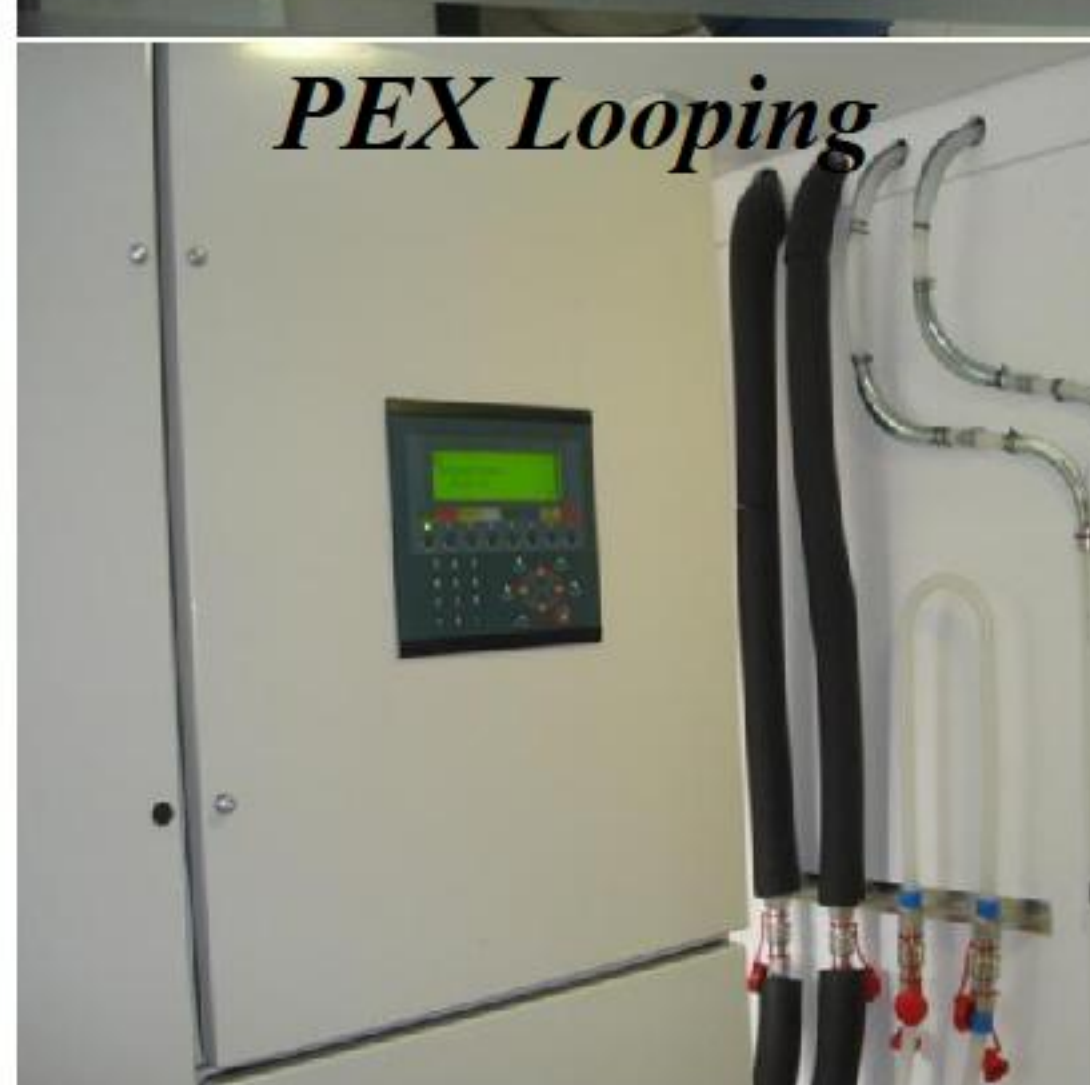
Pre-Treatment



Reverse Osmosis



PEX Looping



Individual Ultrafilter



CONCLUSIONS

A high-quality dialysis was achieved by

- Proactive interdisciplinary predialysis care
- Convenient transportation and flexible dialysis schedule
- Quotidian, safe and efficient solute and volume removal
- Daily nephrologist supervision and 24/7/365 dialysis team availability

All leading to satisfactory clinical, nutritional, psychosocial, rehabilitational, inflammatory and mineral metabolism markers.