Proud Study

1. Medical history and co-morbidities
2. Concomitant medication
3. Physical examination
4. Anthropometric measurements, including:
   - Body weight (BW, kg),
   - Body mass index (BMI),
   - Mid-arm muscle area (MAMA, cm²),
   - Mid-arm circumference (MAC, cm),
   - Mid-arm muscle circumference (MAMC (cm)=MAC (cm)-[0.314×TSF (mm)]),
   - Triceps skin fold thickness (TSF, mm),
   - Lean body mass (LBM, kg), and
   - Creatinine height index (CHI, %) from 24-hour urinary creatinine excretion
5. Biochemical parameters, including albumin, bilirubin, creatinine, urea, alkaline phosphate, aspartate transaminase, INR (International Normalized Ratio), phosphate, transferrin, total body potassium)
6. Endocrine measurements, including fasting insulin, GH, IGF-1
7. Resting energy expenditure (REE, kcal/d) by indirect calorimetry
8. Voluntary muscle function: grip strength (kg)
9. Respiratory function: Peak expiratory flow rates
10. Fatigue score and Health Related Quality of Life (SF-36 or SIP questionnaires)
11. Final assessment
12. Compliance check

Anabolic recovery after transplantation as shown by post-transplant:
- mechanical ventilation,
- hospital stay,
- wound healing,
- infectious morbidities (pneumonia, intraabdominal abscess, sepsis, line sepsis, wound infection, and urinary tract infection),
- CRP,
- acute and chronic rejection, and mortality (ICU mortality, hospital mortality, 28-day mortality, and survival at the 12th week post-transplant surveillance period)

Registration for Primary LTx
Informed consent
Day of LTx: Nutrition ends
End of 12th Wk: Post-transplant Study ends here