

REMOTE MONITORING IN

CHRONIC KIDNEY DISEASE

With Capitainer

 Capitainer®

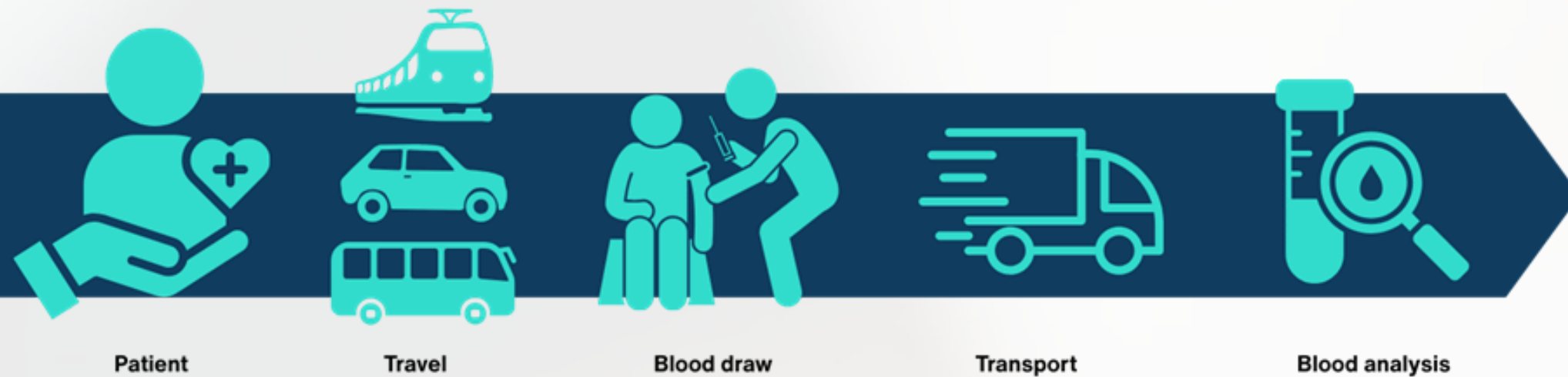
Remote Monitoring in Chronic Kidney Disease

Kidney function is primarily assessed and monitored through plasma creatinine, used to calculate the estimated glomerular filtration rate (eGFR), and through urine albumin-to-creatinine ratio (ACR) to detect proteinuria.

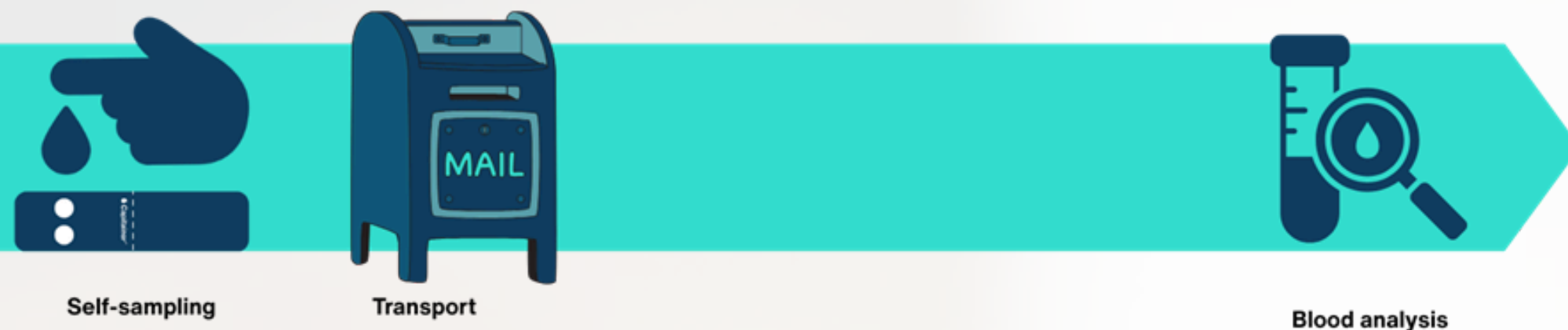
These two biomarkers form the foundation for both diagnosis and staging of chronic kidney disease (CKD) according to KDIGO 2024 guidelines.

Venous blood challenges vs. Self-sampling

Traditional blood sampling



Capillary blood sampling using *Capitainer*®



Systematic advantages with Self-sampling

Enables efficient screening and early detection of kidney function decline.

Fewer hospital visits and improved patient adherence.

Reduced workload for the healthcare system.

More efficient use of healthcare resources and improved care equity across regions.

Our Offer

Capitainer now enables self-sampling at home with clinical quality followed by analytical tests in central laboratories of highest standards.



Capitainer[®] (whole blood) provides precise, volumetrically controlled blood sampling for the measurement of creatinine for accurate calculation of eGFR.

Capitainer[®] DIP70 (urine) enables measurement of uACR, a sensitive indicator of early kidney damage and risk of disease progression.

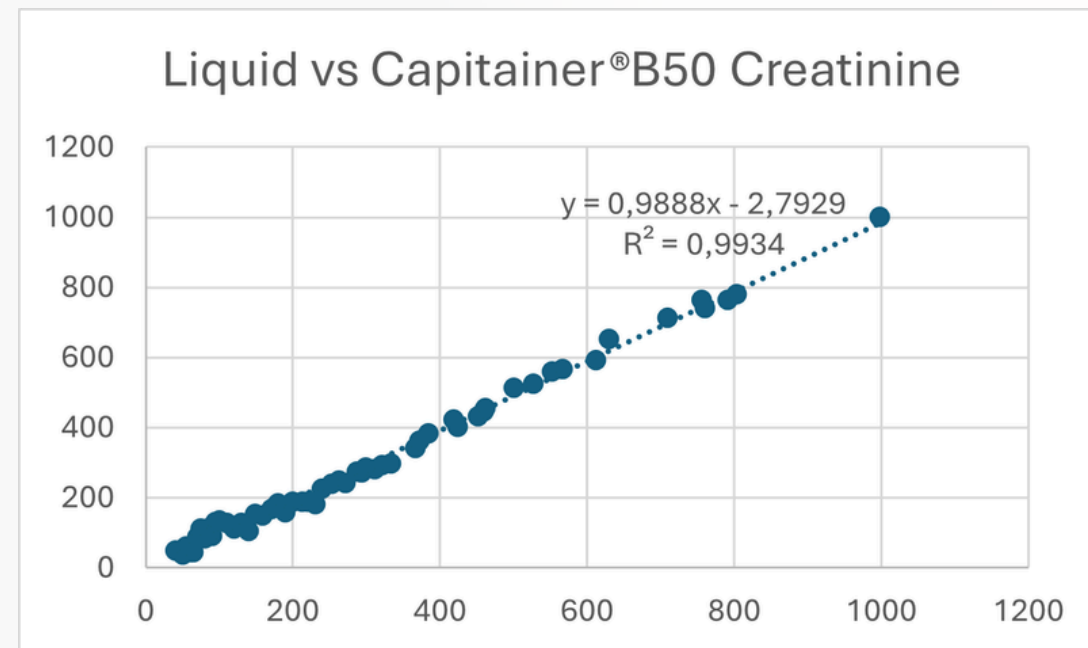


These tests are clinically relevant throughout the continuum of kidney care:

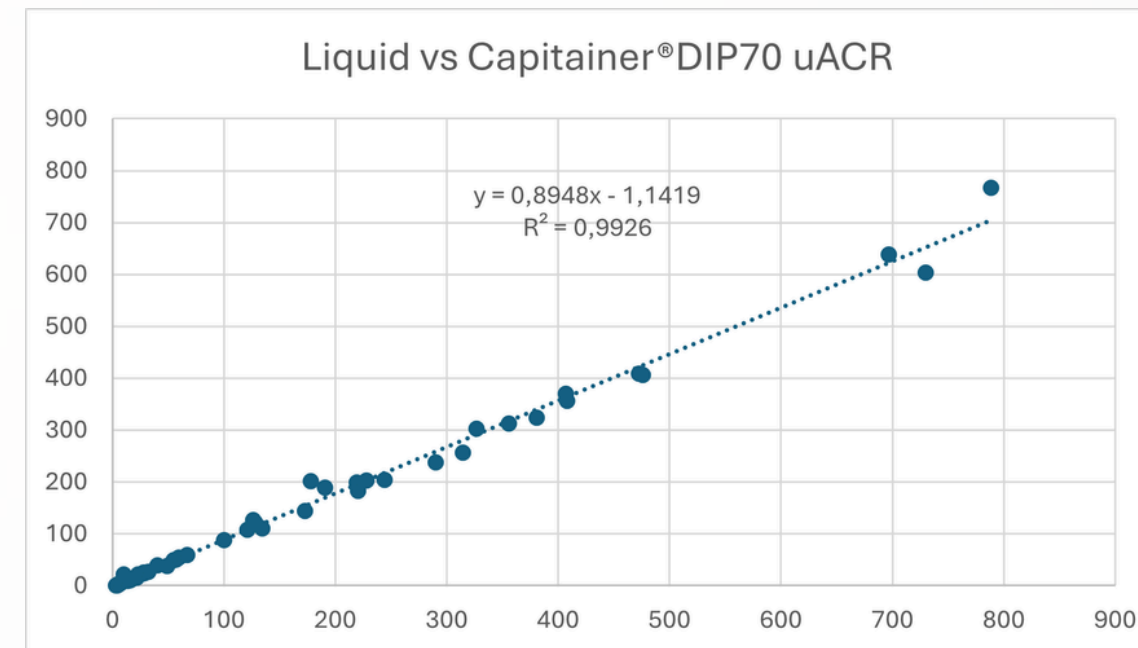
- Early stage (CKD stages 1–2): uACR is used to detect microalbuminuria before any decline in eGFR is observed. Regular home sampling with Capitainer[®] DIP70 allows early intervention.
- Moderate to advanced CKD (stages 3–5): Repeated measurement of creatinine using Capitainer[®] enables accurate eGFR trend analysis and supports timely therapeutic decisions.
- Post-transplantation: The same Capitainer[®] device can be used to monitor immunosuppressive drug levels (e.g., tacrolimus, cyclosporine, sirolimus), which is essential for balancing efficacy and toxicity.

Laboratory analysis from Capitainer®

We have developed protocols and laboratory routines, making it possible for laboratories to analyze plasma creatinine and urine albumin to creatinine ratio on their standard analytical platform based on Capitainer samples.



55 Blood samples from hospital care were analyzed on cobas®Pro enzymatic creatinine assay as liquid samples (X) and after one day post being applied on Capitainer® cards (Y). A correction factor for matrix difference from a previous dataset was applied to the raw values.



50 urine sample from patients in various stages of CKD were analyzed as fresh samples (X) or one day post being applied to Capitainer®DIP70 (Y) on a Beckman 700AU Chemistry Analyzer.

Are you interested in setting up these tests as a service to enable at-home sampling in CKD?

Our team of product and application experts are ready to support you in getting the tests up in your facility and on your instruments.