

# A National Strategy for Kidney Health Promotion and Quality Management in CKD is Needed

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We have shown in Nephrology high capacity and competence in the treatment of patients with chronic kidney disease (CKD) with need for dialysis. We present 100% accessibility to centre haemodialysis; our global outcomes in such modality are good.<sup>1</sup> This however should not efface the evidence that CKD patient management demands much more in preventive care plans during their clinical pursuit. Furthermore, there is insufficient therapeutic individualization with imbalance in the access to home dialysis (home haemodialysis and peritoneal dialysis), assisted dialysis modalities, living donor transplantation and non-dialysis conservative treatment.

The standing legal and finance contexts condition this *status quo* promoting the scale economy of centre haemodialysis offer. The reimbursement policy needs to be updated since it does not signalize a strategic focus on personalization and integrated care; it needs more to be value-based and balanced.

Clinicians and scientific entities also regret, for more than one decade, the persistent international ranking of Portugal concerning the very high rate of incident and prevalent patients performing chronic centre haemodialysis.<sup>2</sup> Our Achilles heel is the poor quality of preventive patient management focused on increasing survival free of dialysis. Two major priorities might be proposed 1) at the level of primary health care the report of patient safety indicators (such as serum creatinine and albuminuria measurement in risk population) with timely reference of CKD patients to nephrology 2) at the level of the hospital the report of major quality indicators such as percentage use of domiciliary dialysis and percentage living donor renal transplantation.

It is indeed necessary to implement more sustainable clinical governance circuits in CKD to protect the patient and society. Organizational innovation is required in hospital nephrology services to guarantee a better circuit upstream and downstream of dialysis: 1. Models of reference and CKD management team with primary health care, 2. Preventive care plans (for example, avoiding ischemic and iatrogenic acute kidney injury that often make patients crash into hospital wards and acutely begin dialysis by central venous catheter (CVC)), prescribing updated therapies to delay progression of chronic renal failure,

3. Mapping critical processes in the stage of advanced chronic kidney disease – option (quality of shared decision process), dialysis access (timely and safe vascular and peritoneal access implantation; percentage ambulatory access surgery), dialysis induction (planned versus acute, ambulatory versus hospital admission, with CVC versus arteriovenous-AV fistula) and modalities transition (percentage domiciliary retention, percentage renal transplantation), including, 4. Implementation of non-dialysis conservative treatment, in elective patients. These processes require a structured consultation or transition unit for advanced chronic kidney disease with respective quality indicators, being a precursor to greater harmonization of preventive and therapeutic offer, integrated treatments, and integrated dialysis units. These are organizational measures with an impact on better clinical outcomes and supported by scientific and international associations recommendations.<sup>3-6</sup>

The regulatory framework in this sector will have to change in order to evidence a strategy towards quality and its finance models of reimbursement should also be adjusted to promote higher use of home dialysis, correct the gap of assisted dialysis and increase live renal transplantation. There is also an opportunity to develop capitation models of finance to reimburse the advanced CKD transition units aiming for safely increase survival free of dialysis and avoid adverse CKD trajectories. On the other hand it is mandatory that information management be improved to adequately support clinical governance, risk stratification, and decision-making in health economics, in the sector of chronic renal care whose burden will continue to increase.

The pillars of action of the National Commission of Dialysis (CNAD) evolved accordingly aiming for: 1. Epidemiological knowledge in CKD, integrating ERA EDTA registry as international comparator, 2. Prevention throughout the patient's journey, 3. Transparency and quality of processes with focus on advanced CKD management and care plan, 4. Cost-utility of health services integrating EQ5D as a patients related outcome measure, 5. Strategic innovation in CKD management. In order to promote gains in Health, a document \_ Proposal of Individualized and Integrated Care Plan for CKD was developed by CNAD to be considered in the Health Ministry. We proposed updating the legal framework for licensing dialysis units with a view to meeting the technical-scientific requirement of integrated care paths and home treatments, as well as supporting value-based adjusted financing.

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In the National Health System Hospitals, we proposed to contract production and quality targets in the Chronic Kidney disease sector: percentage use of home treatments, percentage live donor transplantation, percentage outpatient construction of dialysis access, percentage timed guaranteed response in the construction of first dialysis access, home hospitalization for dialysis patients, telemonitoring in CKD. We suggested considering the opportunity cost of patients transport to haemodialysis sessions, to pay for training, care and telemonitoring in home dialysis, as a more sustainable resources allocation. Models of assisted peritoneal dialysis offer were also suggested. A strategic funding plan and strategic indicators similar to the innovative Kidney Care Choices Model (<https://innovation.cms.gov/innovation-models/kidney-care-choices-kcc-model>), applied by the United States Federal Registry, would guide better clinical practices: increase home dialysis and kidney transplants, allow payment Incentives to quality, map and decrease disparities in rates of home dialysis and kidney transplants among CKD patients.

We look forward to an executive response that matches the professionalism that the Nephrology sector has shown. We were able to face the challenges of the pandemic era with a robust answer to protect patients and clinicians. We evidenced an efficient complementary compromise of both public hospitals and private clinics to guarantee patient treatments. It is time now to evidence that lessons learned translate into strategic innovation towards better and sustainable CKD management.

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