

The Importance of Medical Nutrition Therapy in Chronic Kidney Disease Management

Citation: EMJ Nephrol. 2023;11[1]:xx-xx. DOI/10.33590/emjnephrol/10308560. <https://doi.org/10.33590/emjnephrol/10308560>.

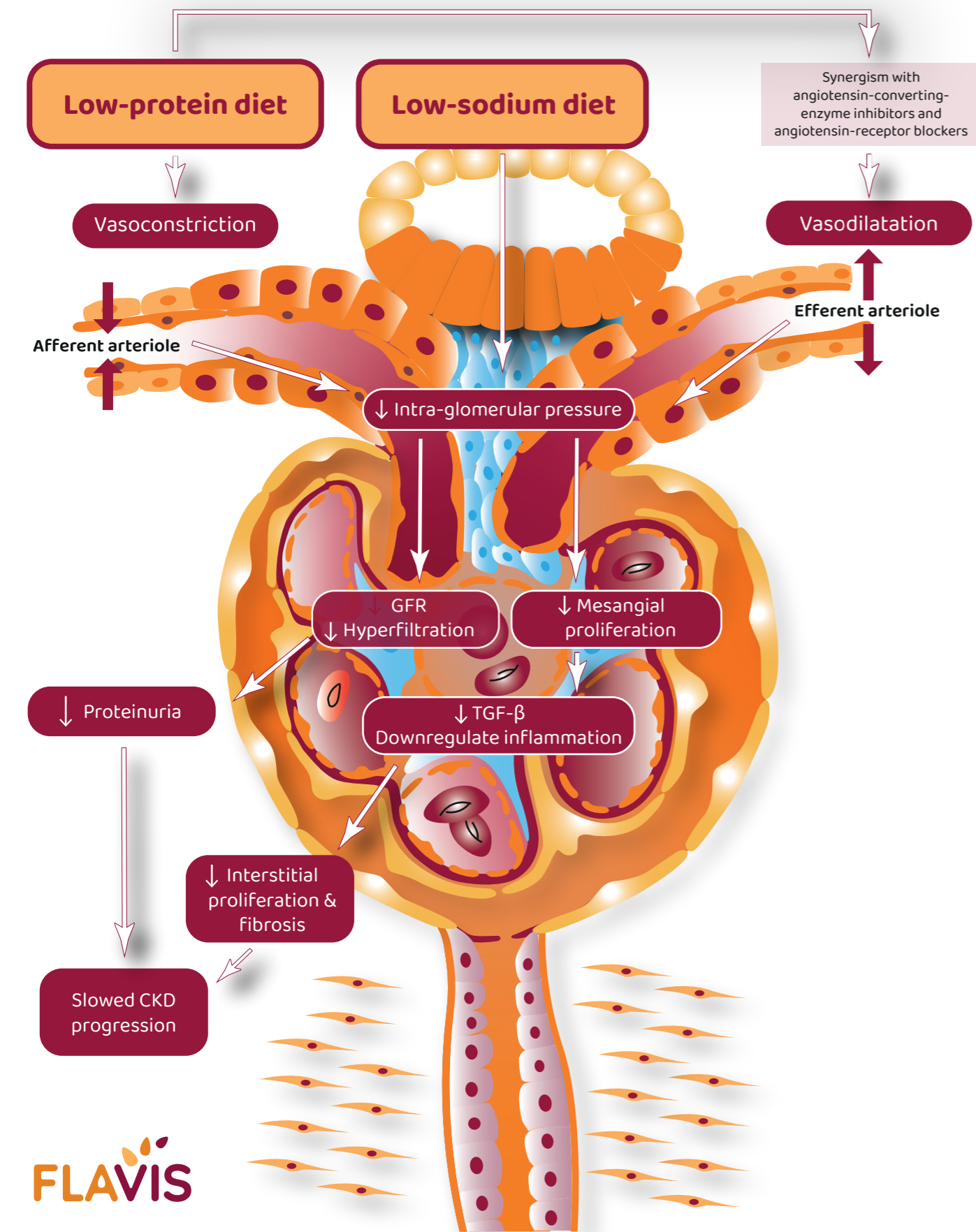
Why should we consider MNT in CKD management?

Current evidence confirms the positive impact of restricted dietary protein on:

Favourable metabolic surrogates of kidney function, including azotemia, bone and mineral disorder, and acidosis.

Slowing kidney function loss and the progression of CKD resulted in the delayed commencement of dialysis and prevention of malnutrition.

Lowering rates of ESRD and death.



Current Nutritional Recommendations in CKD Management



Adults with Stage 3–5 CKD (not on dialysis) who are metabolically stable:

KDOQI 2020 recommends, under close clinical supervision, protein restriction with or without keto acid analogs to reduce risk for ESKD/death (1A) and improve QoL (1C).

A low-protein diet providing **0.55–0.60g** of protein/kg body weight/day

OR

A very low-protein diet providing **0.28–0.43g** dietary protein/kg body weight/day with additional keto acid/amino acid analogs to meet protein requirements (0.55–0.60g/kg body weight/day)

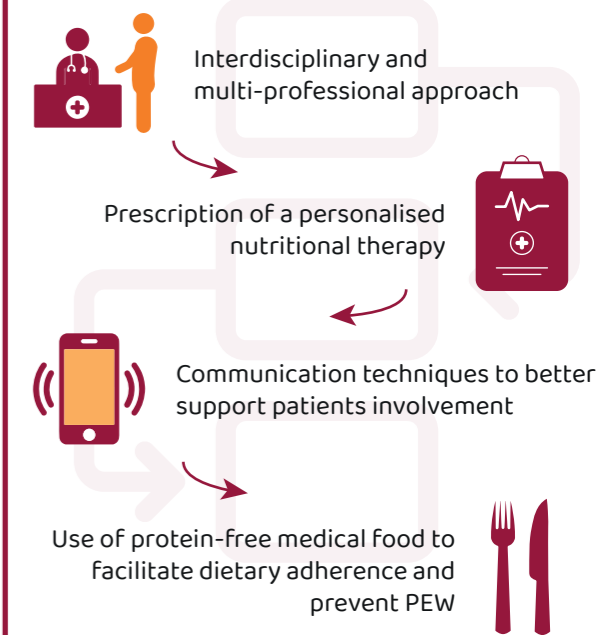


Adults with Stage 3–5 CKD (not on dialysis) who have diabetes:

KDOQI 2020 recommends that it is reasonable to prescribe, under close clinical supervision, a dietary protein intake of **0.6–0.8g**/kg body weight/day to maintain a stable nutritional status and optimise glycaemic control (OPINION).

How can we implement MNT successfully and safely?

Strategies to prevent and treat PEW and increase patient adherence:



Best Practice in Italy



Italian nephrologists have a long-standing practice of implementing LPDs in the treatment of patients with CKD.



The aim is to reduce uraemic symptoms by reducing toxins derived from excess protein intake.



The Italian experience demonstrates flexibility and innovation in the MNT field, in treating non-dialysis CKD patients, and in using LPDs as a bridge between conservative treatment and the start of chronic dialysis therapy.



The main goal of this flexible approach is to favour patient compliance, which is a crucial factor in the successful implementation of an LPD programme.

Conclusions



MNT represents a major feature of CKD management, with the goal to delay kidney failure and improve patient QoL.



The 2020 KDOQI recommends protein restriction to patients affected by CKD in Stages 3–5 (not on dialysis) and in CKD 3–5 who have diabetes (not on dialysis).



MNT is not an 'option' in the management of patients with CKD; it is a core element of care similar to drug prescription.



LPDs need to be tailored and patient-centred to ensure adherence, efficiency, and safety.

References:

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Abbreviations:

CKD: Chronic kidney disease; ESKD: end-stage kidney disease; KDOQI: kidney disease outcomes quality initiative; LPD: low-protein diet; MNT: medical nutritional therapy; PEW: protein energy wasting; QoL: quality of life; TGF-β: transforming growth factor beta.