

Early Prediction for Chronic Kidney Disease Detection: A Progressive Approach to Health Management

Define Problem / Problem Understanding

Business requirements:

The business requirements for a machine learning model to predict chronic kidney disease Include the ability to accurately predict the ckd based on given information, Minimise the number of False positives (predicting diseased) and false negatives (not diseased). Provide an explanation for the model's decision, to comply with regulations and improve transparency.

Assess functioning and well-being in Kidney disease using standardized survey instruments that are valid, reliable, responsive to changes, easily interpretable, and easy to use, such as the Dartmouth COOP Charts, the Duke Health Profile / Duke Severity of Illness (DUKE/DUSOI), Medical Outcomes Study 36-Item Short Form (SF-36), or the Kidney Disease Quality of Life (KDQOL).

Assess patient functioning and well-being early in chronic kidney disease to establish a Baseline, to maintain or improve health status, and to manage the disease continuum by linking Clinical and health outcomes with functional status out-comes. Data reported in the reviewed studies Suggest that decreased kidney function affects patients' functioning and well-being through several dimensions. Deficits in functioning are reported by patients even at early stages of chronic kidney disease, and persist even after transplantation. The implications of these findings are Clinicians should assess functional status and well-being as soon as possible after referral in order to obtain baseline data and enable early intervention to improve functioning and well-being.

Clinicians should regularly reassess functioning and well-being to ascertain the patient's current status and the effectiveness of interventions to improve functioning and well being. Reassessment is needed when a patient reports increased frequency or severity of symptoms, has a new complication of kidney disease, has an access for dialysis placed, starts dialysis, changes Modality, or participates in a clinical or rehabilitation intervention (eg , counseling, peer support, Education, physical therapy or independent exercise, or vocational rehabilitation).