

EARLY PREDICTION FOR CHRONIC KIDNEY DISEASE DETECTION

Milestone 1: Define Problem / Problem Understanding

Activity 1:

Specify the Business problem:

- * The CKD affects 5 to 10 percent of the population worldwide.
- * Most cases of Chronic Kidney Disease go undiagnosed or are later diagnosed in underdeveloped and developing nations.
- * This is one of the primary reasons why a higher percentage of such Case come from developing and underdeveloped nations as opposed to developed nations where most people go through regular chect-ups and diagnose.
- * So we need Machine –Based Learning Systems used to diagnose Chronic Kidney Disease .

Activity 2 :

Business Requirements:

Machine Based-Learning:

The early detection of CKD allows patients to receive timely treatment, slowing the disease's progression. Due to its rapid recognition performance and accuracy, machine learning models can effectively assist physicians in achieving this goal.

The only way to find out for sure if you have CKD is through specific blood and urine tests. These tests include measurement of both the creatinine level in the blood and protein in the urine. Kidney diseases are a leading cause of death in the United States. Early CKD has no signs or symtamse

Activity 3:

Literature Survey:

AUTHOR	ALGORITHM	TITLE	PURPOSE
M.P.N.M.Wickramasinghe.et	Classification	Potssium range of the patient	Potassium range
MS.Astha	Data mining	Prediction of the	Predicting

		CKD	
M.T.Hossain	Random forest	CKD stage	Prediction of the stage
Rohit prasad kushwaha	Random forest,KNN,Naïve bayes	CKD prediction	Dignosis CKD
Yantong cui	Classification-ZeroR,OneR,KNN	CKD Dignosis	Dignosis

Activity 4:

Social Impact or Business Impact:

Kidney disease can have significant social and business impacts on both individuals and society as a whole. Here are some of the ways:

Social Impact:

Decreased quality of life: Kidney disease can lead to a variety of symptoms, such as fatigue, nausea, and difficulty sleeping, which can negatively impact an individual's quality of life.

Dependence on others: As kidney disease progresses, individuals may need assistance with daily tasks, such as cooking, cleaning, and transportation. This can lead to a sense of dependence on family members or caregivers, which can be emotionally challenging.

Stigma and discrimination: There can be social stigma attached to kidney disease, especially for those who require dialysis or a kidney transplant. This can lead to feelings of shame or embarrassment, which can affect an individual's mental health.

Financial burden: Kidney disease can be costly, with expenses related to medication, doctor visits, and hospitalizations. These costs can put a strain on an individual's finances, leading to stress and anxiety.

Business Impact:

Decreased productivity: Individuals with kidney disease may experience fatigue, difficulty concentrating, and other symptoms that can affect their ability to work. This can result in decreased productivity and missed workdays, which can impact business operations.

Increased healthcare costs: Kidney disease can lead to frequent hospitalizations and medical appointments, which can drive up healthcare costs for both individuals and employers.

Employee retention and recruitment: Chronic kidney disease can require ongoing treatment and monitoring, which can make it difficult for individuals to maintain steady employment. This can lead to challenges for employers in retaining and recruiting employees with kidney disease.

Disability and insurance costs: Individuals with kidney disease may require disability benefits and may have higher insurance costs due to their medical condition. These costs can impact both individuals and employers.

Overall, kidney disease can have a significant impact on individuals, families, and society as a whole. Raising awareness, improving access to healthcare, and providing support for those affected by kidney disease can help mitigate these impacts