QUIZ
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Question No: 1

Which is the the most widely used AI tool in nephrology for clinical and research applications?

A.LARGE LANGUAGE MODEL

B.MACHINE LEARNING

C.NATURAL LANGUAGE PROCESSING

D.ARTIFICIAL NEURAL NETWORK

ANSWER

Ans: B. Machine Learning

- The most commonly used AI tools in nephrology are predictive models and diagnostic algorithms based on traditional MACHINE LEARNING techniques .
- NLP is being adopted to identify diseases, patient symptoms, and features from free-text electronic health records, and is sometimes combined with deep learning for improved performance
- Deep learning is especially used when analyzing complex or unstructured data like medical images or free text, but its use is limited by the need for large datasets and specialized computational resources. Eg: Automated Renal biopsy diagnosis

Question No: 2

Which of the following represents a key application of artificial intelligence (AI) in the field of Nephrology that has shown most significant promise in recent clinical research?

- A. Predicting the genetic inheritance patterns of polycystic kidney disease using traditional statistical methods
- B. Automating renal biopsy procedures without the need for pathologist
- C. Replacing hemodialysis machines with AI-driven filtration systems in outpatient settings
- D. Early prediction of acute kidney injury (AKI) in hospitalized patients using machine learning models

ANSWER

Ans: D. Early prediction of acute kidney injury (AKI) in hospitalized patients using machine learning models

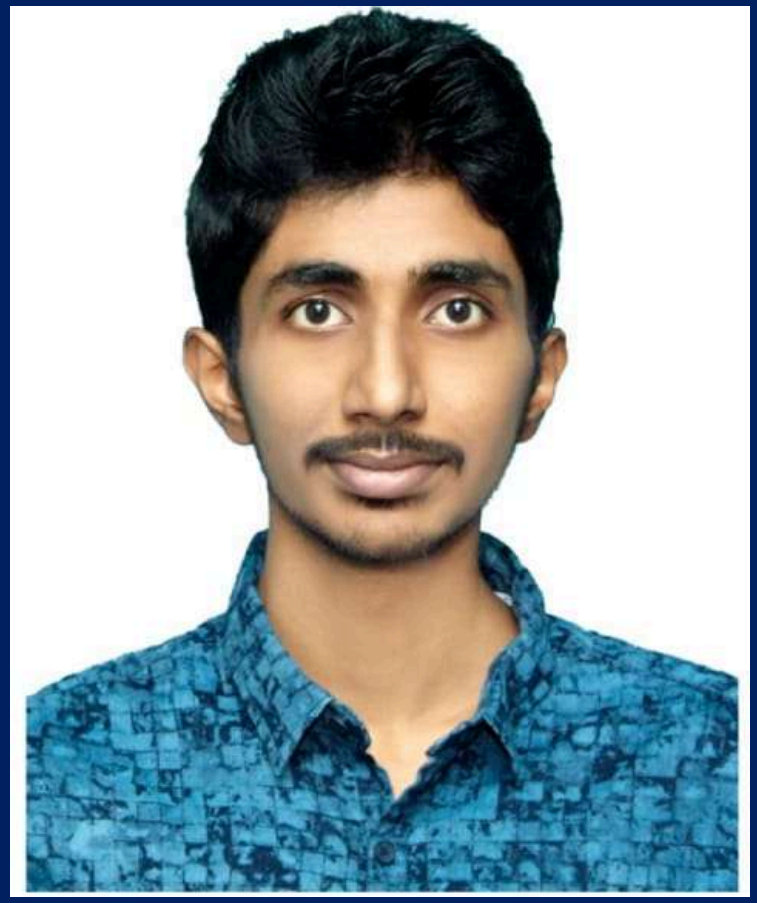
Option A (Genetic prediction using traditional stats): While genetics play a role in polycystic kidney disease, AI is not yet routinely used in predictive modeling here — and traditional methods lack the sophistication of AI-driven models.

Option B (Automated biopsies): AI may assist in **pathology interpretation** but cannot fully automate biopsy procedures without human oversight.

Option C (AI replacing dialysis machines): AI helps **optimize dialysis treatment** (e.g., dosing, scheduling) but does **not replace** dialysis machines.

WINNER

- Dr Saravana Balaji
- Madras medical college, chennai
- 3rd year Nephrology resident



Thank You