Detection of Liver Disease using ANN

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Abstract: *Liver disease is an important worldwide health concern that requires early and correct diagnosis. This study studies the application of Artificial Neural Networks (ANN) for diagnosing liver disease based on clinical and biochemical data. An optimised ANN model was created and tested using measures like accuracy, sensitivity, specificity, and area under the ROC curve. The results reveal that the ANN outperforms standard diagnostic approaches and other machine learning algorithms, detecting liver illness with high accuracy even in complex scenarios. This research demonstrates the potential of ANN in boosting diagnostic precision and assisting clinical decision-making, paving the path for improved computational tools in medical diagnostics.*

Keywords: Liver Disease, Artificial Neural Networks (ANN), Clinical and Biochemical Parameters, Model Optimization, Backpropagation, Cross-Validation, Specificity, ROC Curve, Complex Cases, Clinical Decision Support