

TITLE	AUTHOR AND YEAR	PUBLISHER	PROPOSED SOLUTION	PROS AND LIMITATIONS	PROBLEM PROPOSED
Prediction of Drug-Induced Liver Toxicity	Jaganathan, K.; Tayara, H.; Chong, K.T./ 2021	Bono Lucic	The prediction model is determined by molecular descriptors and the software such as PaDEL, Chemopy, CDK and RDKit	Non genetic risk factors include age , chronic liver diseases and other diseases. Compound-specific risk factors include daily dose,metabolism characteristics and propensity for drug interaction	This prediction is to improve the liver toxicity
Predicting survival after hepatocellular carcinoma resection	Saillard,C.; Schmauch,B.; Pronier,E.; Laurent,A.; Amaddeo,G.; Regnault, H./ 2020	Mr. Saillard	Discovery set is used to develop our algorithms and an independent validation set . WSIs were first divided into small squares and features were extracted with a p retrained conventional neural network	This can help refine the prediction of HCC prognosis. It highlights the importance of pathologist/machine interactions for the construction of deep-learning algorithms	To build models for predicting survival of patients with HCC treated by surgical resection
Liver cancer prediction in a viral hepatitis cohort	Phan,D.V.; Chan,C.L.; Chien,T.Y.; Nguyen, V.C/ 2020	Int. J. Cancer	vector machine (SVM), RNN, long-short-term memory (LSTM),29 gated recurrent units (GRU)30 and CNN to build models for the prediction of liver cancer	This cancer is often diagnosed in the later stages, which makes treatment difficult or even impossible.	Viral hepatitis is a leading cause of liver cancer worldwide
Software-based Prediction of Liver Disease with Feature Selection and Classification Techniques.	Singh,J.; Bagga, S.; Kaur, R./ 2020	Elsevier B.V	Decision tree algorithm is used, Naive Bayes and neural filtration algorithm. The algorithm decision tree classifies the given data by dividing them into nodes and branches. By applying decision tree classifier classification of yes or no about the grant patent check is done.	It increases classification accuracy and also leads to reduction in classification time.	It aids for prediction of liver diseases more efficiently. The performance is measured in terms of accuracy, auc score, precision, recall and f-measure.
Improving healthcare operations management	Pianykh,O.S.; Guitron,S.; Pandharipande,P Brink,J.; Rosenthal, D/ 2020	Natural machine Intelligence	Machine learning algorithms, salable and adaptive to complex patterns, may be particularly well suited	The power of building strong models from a large number of weakly predictive features, and the ability to identify key factors in complex feature sets	Predicting operational events, and identifying key workflow drivers
Predicting Liver Disease Risk	Wang,Y.; Gacesa,R.; Zhang, J.; Wang, B/ 2020	Michele Malaguarnera	Observational retrospective study and analyzed 581 AILD patients who were hospitalized in the Gastroenterology department and 1000 healthy controls who were collected from health management center. Baseline characteristics at initial presentation were used to build regression models.	Prediction models that combine several variables or features to estimate the risk of people being infected or experiencing a poor outcome from infection could assist medical staff in the treatment of patients, especially those that develop organ failure such as that of the liver.	To analyze clinical characteristics of AILD patients at initial presentation and identify clinical markers
Burden of liver diseases in the world	Asrani,S.K.; Devarbhavi,H.; Eaton,J.; Kamath, P.S/ 2019	Journal of Hepatology	The global prevalence of viral hepatitis remains high, while drug-induced liver injury continues to increase as a major cause of acute hepatitis. Liver transplantation is the second most common solid organ transplantation, yet	Vaccination and newer drugs will reduce the burden of viral related liver disease	This prediction for prevalence of the most common causes of chronic liver diseases in the United States from 1988 to 2008

			less than 10% of global transplantation needs are met at current rates		
Accounting for missing data in statistical analyses	Hughes,R.A.; Heron, J.; Sterne,J.A.; Tilling, K/ 2019	Oxford University Press on behalf of the International Epidemiological Association	when CCA will not be biased by missing data and compare MI and CCA, with respect to bias and efficiency, in a range of missing data situations	The variance of analyses based on imputed data is usually lower, since missing data imputation does not reduce your sample size. Depending on the response mechanism, missing data imputation outperforms list wise deletion in terms of bias.	Failure to appropriately account for missing data in analyses may lead to bias and loss of precision
Computer-aided decision-making for predicting liver disease	Joloudari,J.H.; Saadatfar,H.; Dehzangi,A.; Shamshirband,S/ 2018	Informatics in Medicine Unlocked	In the experiment, we use the ELTA approach	To select significant features by comparing data mining models to predict liver disease based on an extraction, loading, transformation, analysis (ELTA) approach for correct diagnosis	With the help of data mining models, one can convert this data into valuable information, and through analyzing them logically and scientifically, one can reach accurate decision-making and actual prediction
The diagnosis and management of nonalcoholic fatty liver disease	Chalasani,N.; Younossi,Z.; Harrison,S.A.; Brunt,E.M.; Sanyal, A.J/ 2018	Hepatology	The mechanism of nonalcoholic fatty liver disease is unknown but involves the development of insulin resistance, steatosis, inflammatory cytokines, and oxidative stress. Nonalcoholic fatty liver disease is associated with physical inactivity, obesity, and metabolic syndrome	Screening is not recommended in the general population. The bases for current methods of evaluating the lesions that collectively comprise the phenotype spectra of NAFLD.	This Prediction was commissioned by the American Association for the Study of Liver Diseases (AASLD) and is an update to the Practice Guideline published in 2012 in conjunction with the American Gastroenterology Association and the American College of Gastroenterology (ACG).