gutflix
GI learning, personalised

Summary

EXTERNAL VALIDATION OF A NOVEL EXPLAINABLE AI-DERIVED WEB TOOL FOR PREDICTING DRUG SUSTAINABILITY OF INFLIXIMAB AND VEDOLIZUMAB IN MODERATE-TO-SEVERE ULCERATIVE COLITIS

Iris Dotan

UEG Week Copenhagen 2023 | Poster

IBD

October 15, 2023

A machine learning-based web tool for predicting one-year drug sustainability of infliximab and vedolizumab in moderate-to-severe ulcerative colitis was externally validated in two independent Israeli cohorts, achieving area under ROC curve of 0.85 with accuracy ranging from 62.8% to 80%.

KEY POINTS

- The retrospective multi-center study included 313 patients with moderate-to-severe UC treated with infliximab or vedolizumab for at least 54 weeks across three Israeli medical centers, with one center used for model development and two for external validation.
- Drug sustainability was defined as corticosteroid-free, hospitalization-free, and surgical-free treatment with the biologic agent over one year.
- The AI model used readily available baseline clinical parameters to generate patient-specific predictions and explainable survival curves based on the top five predictive features.
- External validation showed sensitivity 75-80.7%, specificity 36.3-50%, positive predictive value 70.1-85.6%, and accuracy 62.8-75% across the two independent test cohorts.
- The authors suggest the explainable AI tool could potentially aid clinical decision-making for treatment selection in patients with moderate-to-severe UC, particularly in precision medicine contexts.

VIEW THIS CONTENT ON GUTFLIX

https://gutflix.eu/search/d/d5da13a6-743b-11ee-81c5-0242ac140004

AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.