

DEVELOPMENT AND VALIDATION OF A RISK PREDICTION MODEL FOR COLORECTAL ADENOMA BASED ON PATIENT AND COLONOSCOPY CHARACTERISTICS

Yang Cheng

UEG Week Berlin 2025

Poster

Colorectal

October 6, 2025

A retrospective study of 830 colonoscopy patients identified male gender, older age, higher physician experience, and longer withdrawal time as independent risk factors for colorectal adenoma and developed a nomogram prediction model with an AUC of 0.720.

KEY POINTS

- Multivariate logistic regression analysis found four independent risk factors for colorectal adenoma: age (OR 1.05, 95% CI 1.03–1.08), male gender (OR 1.79, 95% CI 1.32–2.41), physician experience level (OR 1.79, 95% CI 1.20–2.68), and withdrawal time (OR 1.00, 95% CI 1.00–1.00, all p values significant).
- The nomogram risk prediction model achieved an AUC of 0.720 in the modeling cohort, with calibration curves showing good agreement between predicted and observed values and decision curve analysis indicating clinical predictive value.
- Random forest, XGBoost, and LightGBM machine learning algorithms independently validated that age, gender, physician experience, and withdrawal time are important factors influencing adenoma detection rate.
- The authors conclude the model, based on easily accessible clinical indicators, may guide colonoscopy screening to improve adenoma detection.
- This material is relevant for gastroenterologists and endoscopists interested in risk stratification for colorectal adenoma screening.

VIEW THIS CONTENT ON GUTFLIX

<https://gutflix.eu/search/d/3c512220-a813-11f0-9c5b-0242ac140006>



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.