

# Clinical feature model predicts colitis outcomes

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(HealthDay)—Clinical features, including response at day seven of

hospitalization for the index episode of acute severe colitis (ASC), can predict both colectomy and steroid dependence with reasonable accuracy, according to a study published online Aug. 12 in the *Journal of Gastroenterology and Hepatology*.

Saransh Jain, M.D., from the All India Institute of Medical Sciences in New Delhi, and colleagues constructed a random forest-based machine learning model to predict the long-term risk of colectomy or steroid dependence following an index episode of ASC. At index admission, patients avoiding colectomy were categorized as complete (CRs; no more than three non-bloody stools per day) or incomplete responders (IRs), based upon [response](#) to corticosteroids at day seven.

The researchers found that of 1,731 patients with [ulcerative colitis](#), 10 percent had an index episode of ASC. At index admission, 11 percent of [patients](#) underwent colectomy, and 26 percent had one over a median follow-up of 56 months. For IRs, the hazard ratio for colectomy was 3.6, compared to CRs. Based on four variables (response at day seven of hospitalization, steroid use during first year of diagnosis, longer disease duration prior to ASC, and number of extra-intestinal manifestations), the model was able to predict colectomy with an accuracy of 77 percent.

"Disease behavior of ASC in India is similar to the West, with a third undergoing [colectomy](#) at 10 years," the authors write.

**More information:** [Abstract](#)  
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