Scoring Tool Predicts Patient Outcomes for Crohn's Disease Treatment

By Michelle Brubaker | January 07, 2019

pproximately three million Americans suffer from inflammatory bowel disease (IBD), which includes Crohn's disease and ulcerative colitis. Currently, there is no cure for these chronic conditions, but medications can manage sometimes debilitating symptoms. The challenge for physicians is knowing which patients will respond best to which medication.



In this Q and A, Parambir Dulai, MD, in the Division of Gastroenterology at UC San Diego Health and an instructor of medicine at UC San Diego School of Medicine, talks about a recent study that analyzed a scoring system to predict patient outcomes for a Crohn's disease treatment.

What was the motivation behind the scoring model your team studied?

We are seeing a growth of opportunity to effectively manage IBD in routine practice with numerous biologics and small molecule inhibitors coming to market. The main limitation to this, however, is the inability to identify patients who are

most appropriate for one type of therapy or one specific agent. This results in providers often cycling through several therapies trying to find the one that works best, resulting in wasted resources, ineffective patient care and a risk of disease progression while trying to find the most effective therapy for an individual patient.

What's the main takeaway from the results?

To address this gap, we wanted to build a clinical decision support tool for a recently approved biologic, vedolizumab (marketed as Entyvio), to help guide its use in Crohn's disease. By combining data from a Phase III clinical trial with data from routine practice to build and validate this scoring model, we bridged gaps seen due to differences in patient populations and were able to create a tool that can help guide the use of vedolizumab in Crohn's disease.

The main takeway is that the tool has 100 percent sensitivity to identify the patients who would not benefit from vedolizumab therapy and should be treated with an alternative agent.

Furthermore, we identified a group of patients who had a very high probability of responding to the drug and might therefore benefit most from its use.

Was there anything about the scoring tool that surprised you?

How effective the tool was in identifying outcomes given it is a very simple, easy to calculate tool that consists of patient characteristics and routine lab values.

What are next steps?

By being able to classify an individual patient's probability of response to vedolizumab, we hope this tool will:

- Improve overall cost-effectiveness of biologic use for Crohn's disease.
- Help in the shared decision-making process by showing patients the results of the tool to inform treatment expectations.
- Serve as a template for future decision support tool development for other biologics currently available or soon to be available in Crohn's disease and ulcerative colitis.

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