

# A Simple Blood Test Helps Predict Disease Severity in Children with IBD

Study examines the neutrophil-to-lymphocyte ratio (NLR) at diagnosis to understand inflammation seen during colonoscopy

**OUR AIM** was primarily to investigate the relationship between NLR and how severe the disease looks during endoscopy in kids with IBD. We also examined whether NLR predicted hospitalization, surgery, and therapy response by 52 weeks.

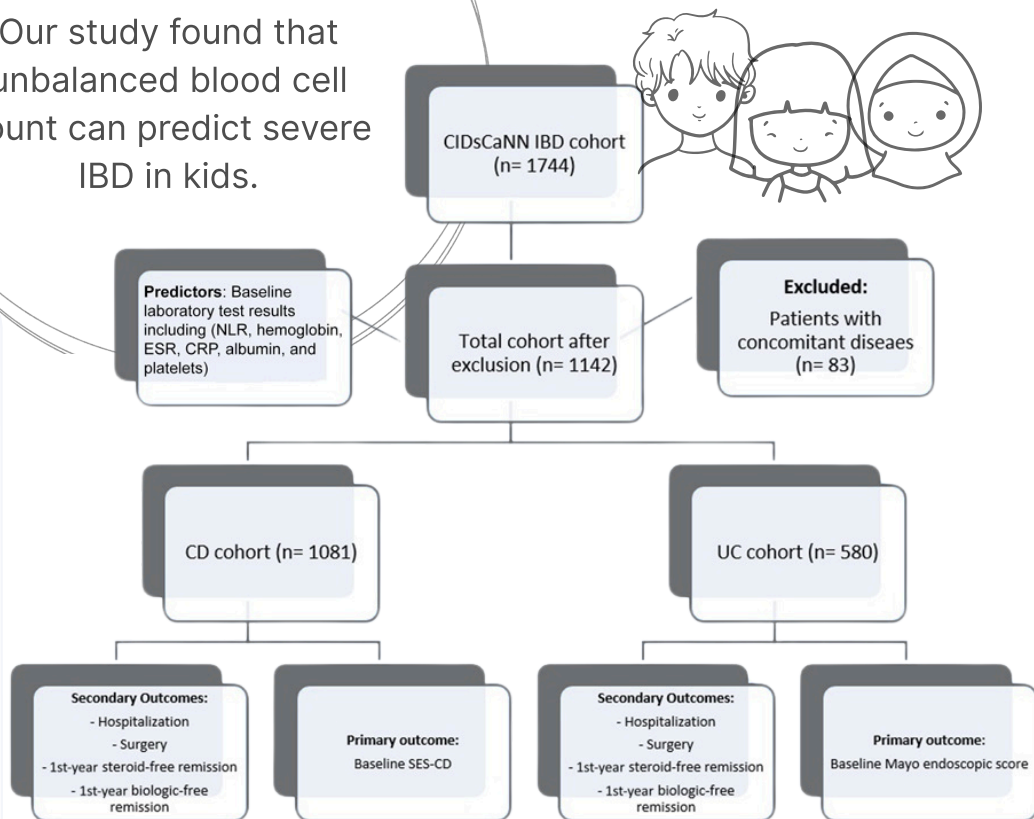
**BACKGROUND** – NLR, which stands for neutrophil-to-lymphocyte ratio, is a type of blood test that has been studied in adults with autoimmune diseases like IBD. However, it hasn't been well studied in children with IBD.

## Informing Patient Care

Developing noninvasive, readily available, and inexpensive disease markers can help guide clinical management, complement endoscopy results, and improve our understanding of disease progression.

## Primary Outcome

Our study found that unbalanced blood cell count can predict severe IBD in kids.



## DEFINITIONS

### Inflammatory Bowel Disease (IBD)

is a term for three conditions:

- Crohn's disease (CD)
- Ulcerative colitis (UC)
- and IBD-unclassified

**NLR** measures the ratio of neutrophils to lymphocytes, two types of white blood cells, and can be an indicator of inflammation and systemic stress.

**Endoscopy** is a procedure used to look inside the body.

- A total of 580 patients with UC and 1,081 patients with CD were included in our study.
- Patients were diagnosed between 2013 and 2022.
- The median age at diagnosis in years was 13 for both UC and CD.

Aziz, Bishoi MD, MSc<sub>1</sub>; Belaghi, Reza PhD<sub>2</sub>; Huynh, Hien MBBS<sub>1</sub>; Jacobson, Kevan MBBS<sub>3</sub>; Mack, David R. MD<sub>2</sub>; Deslandres, Colette MD<sub>4</sub>; Otley, Anthony MD, MSc<sub>5</sub>; DeBruyn, Jennifer MD<sub>6</sub>; El-Matary, Wael MD, MSc<sub>7</sub>; Crowley, Eileen MD, MSc<sub>8,9</sub>; Sherlock, Mary MD<sub>10</sub>; Critch, Jeffery MD<sub>11</sub>; Ahmed, Najma MD<sub>12</sub>; Griffiths, Anne MD<sub>13</sub>; Walters, Thomas MD<sub>13</sub>; Wine, Eytan MD, PhD<sub>1,14</sub>; Canadian Children IBD Network