ECONOMIST IMPACT

Inflammatory bowel disease

Health system challenges and opportunities to improve patient outcomes

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What is IBD?

Inflammatory bowel diseases (IBD) are a group of chronic immune-mediated conditions causing inflammation of the gastrointestinal tract.

Ulcerative colitis (UC) and **Crohn's disease (CD)** are the most common IBDs.

4.9 million

people worldwide are living with IBD.[1]

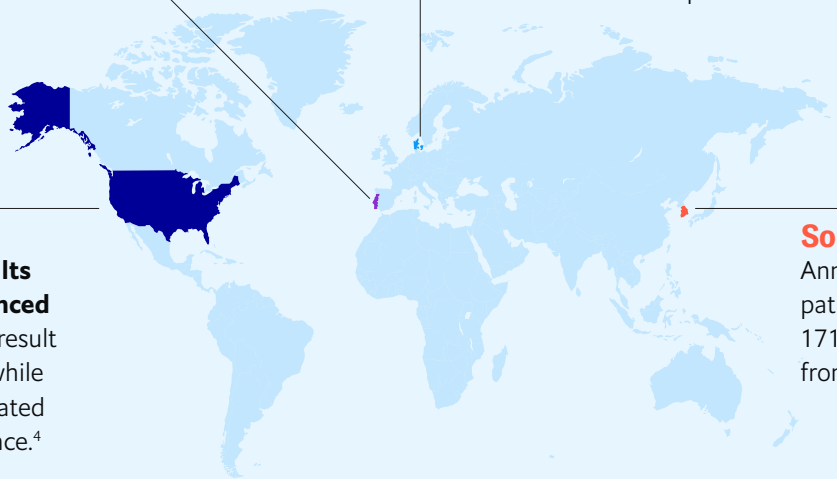
Economic burden of IBD

Portugal

Annual estimated cost of **US$156 million per year**. 31% represented indirect costs that included patient work absences, caretaker work absences, presenteeism, early retirement and premature death.[2]

Denmark

In the first year after diagnosis, **hospital admission accounts for 36% and 31% of all costs in patients** with CD and UC, respectively. By the third-year after diagnosis, indirect costs such as productivity loss is the main cost driver, making up 52% and 83% of all costs in patients with CD and UC, respectively.[3]



US

Almost one in four adults with IBD have experienced financial hardship as a result of out-of-pocket costs, while one in six report cost-related medication non-adherence.[4]

South Korea

Annual direct medical costs for patients with CD increased by 171%, between 2006 and 2015, from **US$1178 to US$3192**.[5]

Delayed diagnosis

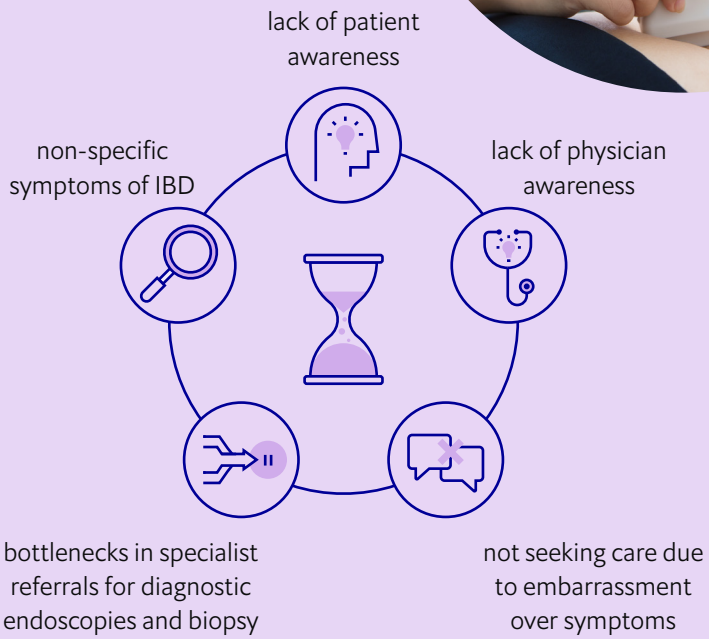
Delayed diagnosis is a common problem for patients with IBD[6]

The average time to diagnosis is **3.7 months in UC** and **8 months CD**.

However, **1 in 4 people wait longer** than 7 and 15 months for a diagnosis of UC and CD.

Delays in diagnosis leads to **more severe disease** and doubles the patient's risk of intestinal surgery.

Reasons for delayed diagnosis



Treatment targets

The goal of treatment in IBD has moved from merely symptom control towards **complete clinical, biochemical, and endoscopic remission**. The Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE-II) recommendations include:

- **clinical response as an immediate target**
- **clinical and biochemical remission as intermediate-term targets**
- **endoscopic healing and normalised health-related quality of life as long-term targets**

Benefits of achieving the long-term target of endoscopic healing after initial treatment include:

UC[7]

4x higher odds of long-term clinical remission

9x higher odds of having a corticosteroid free long-term remission

4x higher odds of being colectomy free

CD[8]

2x as likely to achieve long-term clinical remission

2.8x higher odds of being surgery free

Issues to address to realise the benefits of treatment goals:

1. **Access barriers** to novel agents (delays in regulatory approval, reimbursement issues and administrative requirements)
2. **Suboptimal endoscopic healing rates** and long term remission rates with existing drugs
3. **Need for invasive tests** to assess mucosal healing
4. **Lack of predictive models** for response to existing treatments

Innovations along the care pathway

Diagnostic innovations:

Home-based faecal calprotectin testing to rule out IBD in selected patients.

Technological innovations:

Apps and telehealth. For physicians, these innovations can be used to increase awareness, facilitate early diagnosis. For patients, they can be used to improve IBD knowledge and self-monitor symptoms.

Care provision:

IBD Specialty Medical Homes providing multidisciplinary care

The way forward

Streamlining the IBD care pathway to reduce health system burden

Facilitating speedy diagnosis to ensure timely care

Expanding the use of digital technologies to improve patient-centric care

Supporting innovations in treatment and monitoring to achieve treatment goals

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