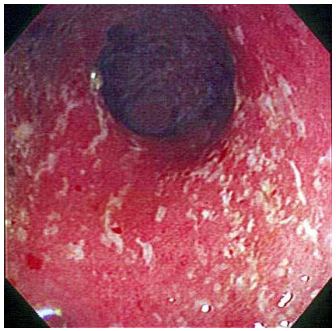
The effect of IBD and its treatment on seafarer fitness

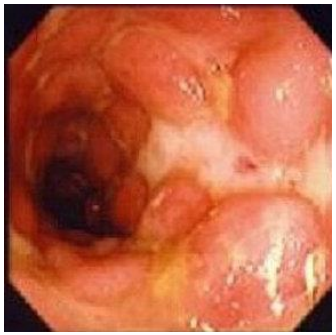
Tim Orchard

Consultant Gastroenterologist &
Professor of Gastroenterology

Imperial College
London

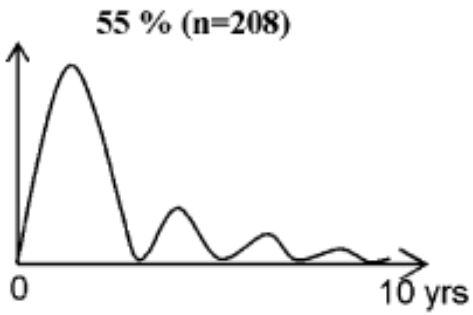
Inflammatory bowel disease



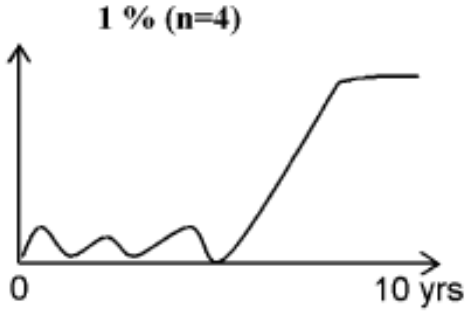


- Ulcerative Colitis
  - ΔΔ Amoebic colitis
- Crohn's disease
  - ΔΔ Yersinia
    Tuberculosis
- Others
  - Behcet's
  - Vasculitis etc

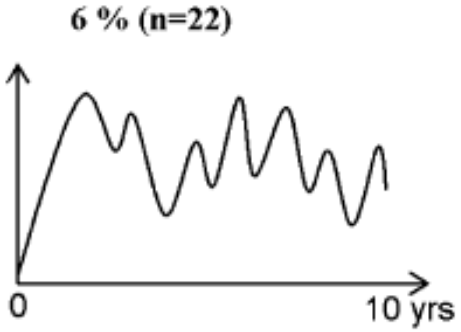
Disease Behaviour of Ulcerative Colitis



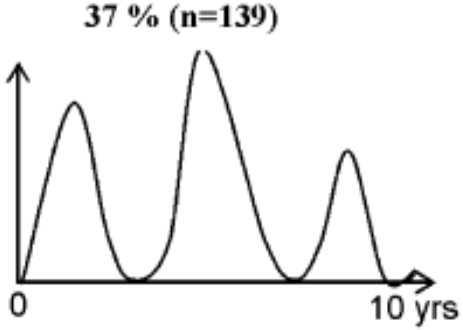
Curve1: Remission or mild severity of intestinal symptoms after initial high activity



Curve 2: Increase in the severity of intestinal symptoms after initial low activity



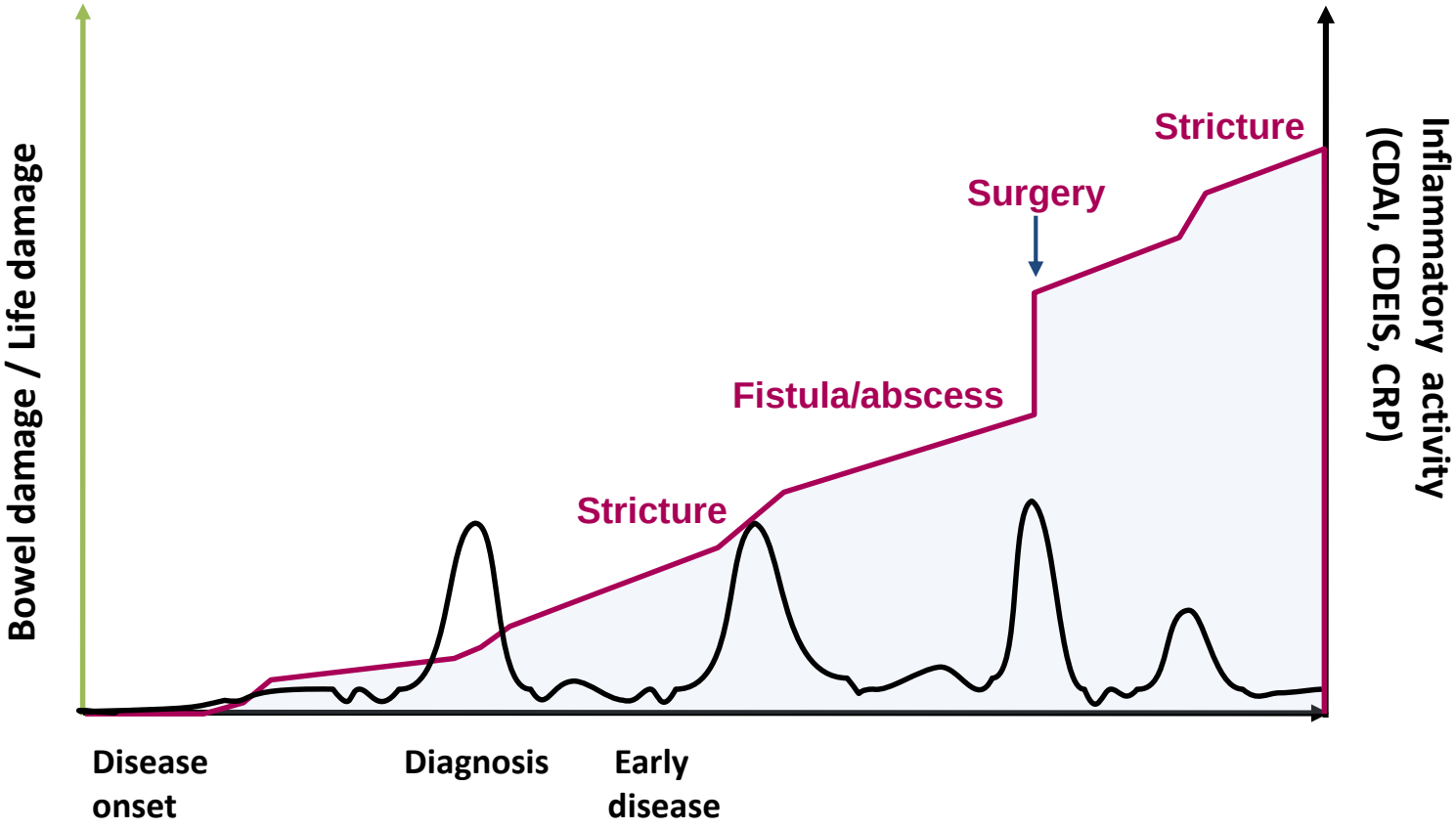
Curve 3: Chronic continuous symptoms



Curve 4: Chronic intermittent symptoms

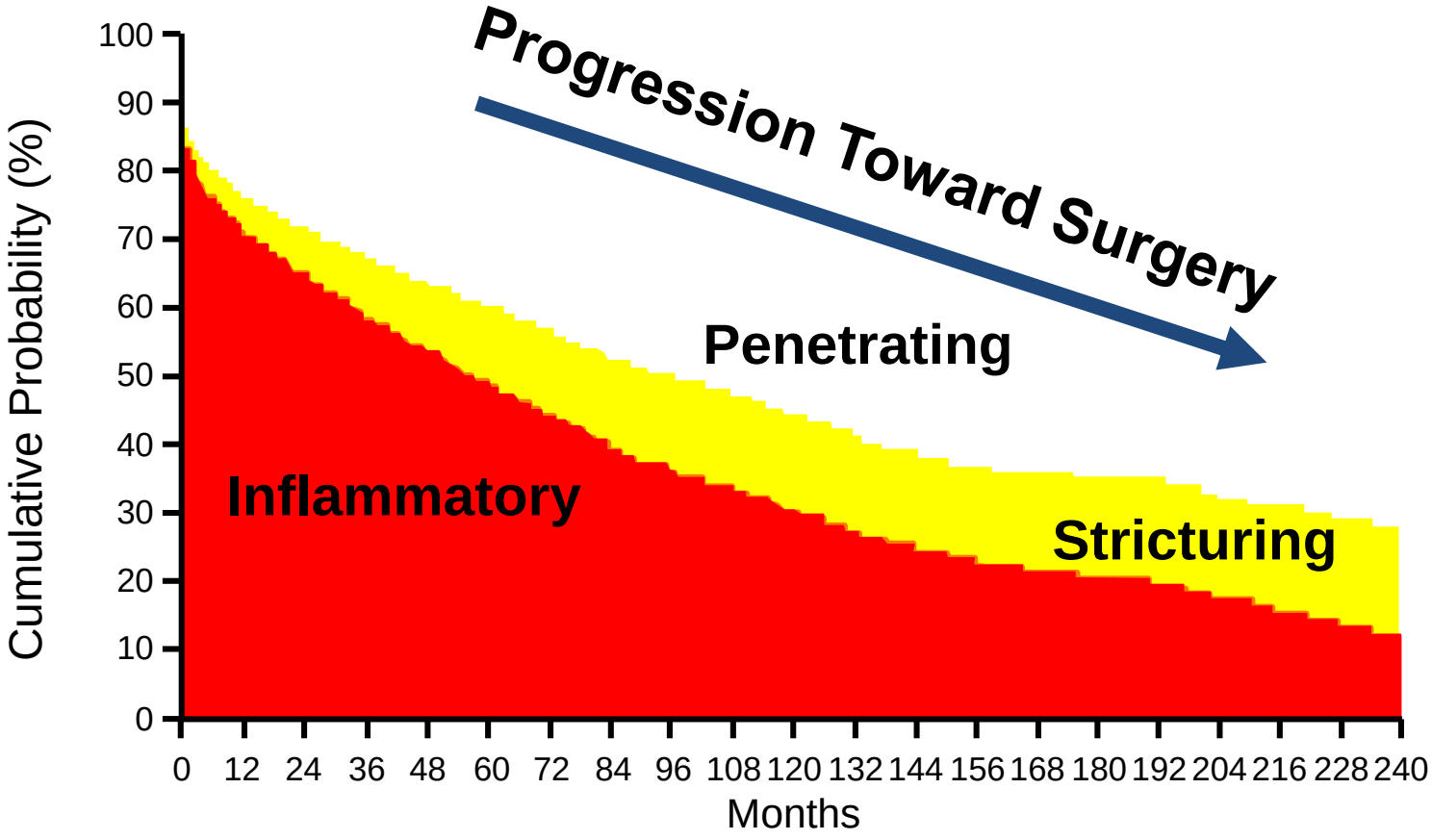
Figure 1. Four predefined curves, depicting different courses of ulcerative colitis from diagnosis to 10 years' follow-up. N = the number of non-operated patients ($n = 379$) reporting on each of them. Data were missing for six patients (1%).

The natural history of Crohn's disease



from Pariente B *et al. Inflamm Bowel Dis* 2011

“Natural History” of Disease Behaviour in CD

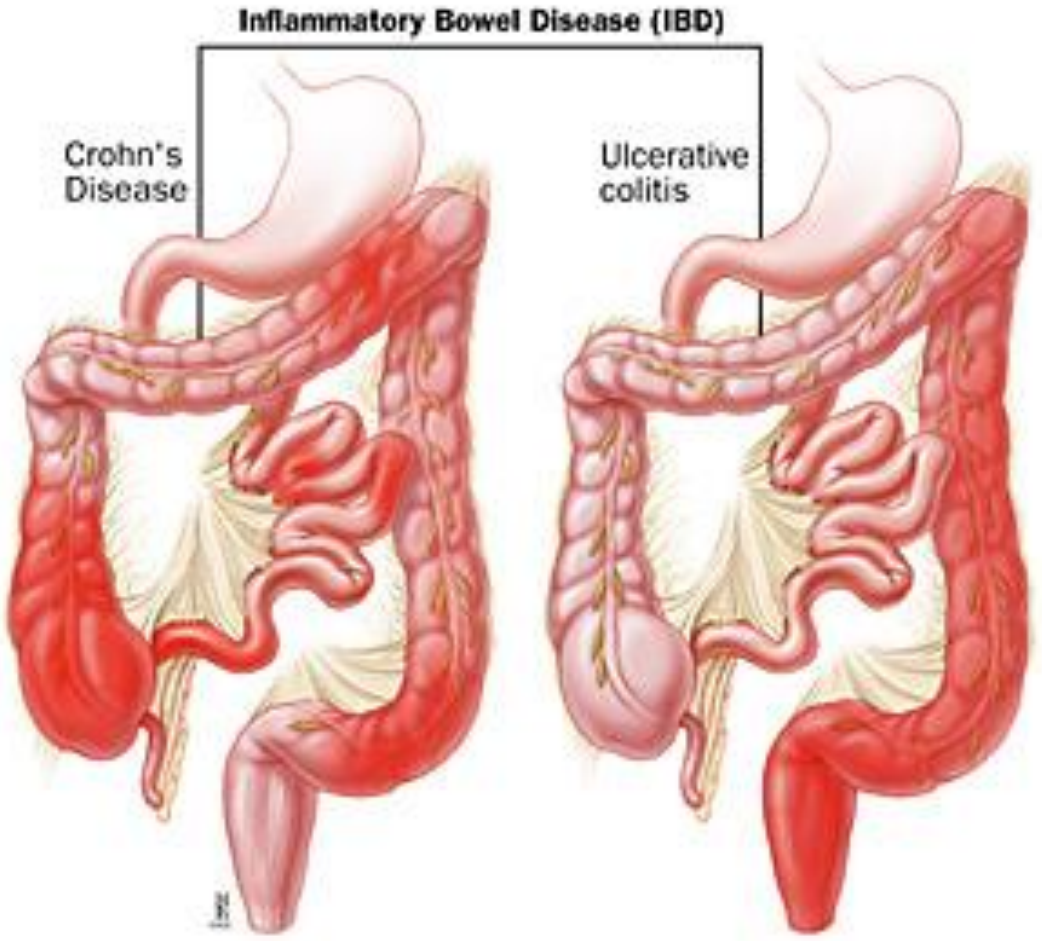


Patients at risk:

N =	2002	552	229	95	37

Cosnes J et al. *Inflamm Bowel Dis*. 2002;8:244.

IBD – Symptoms reflect the site of inflammation



Symptoms depend on the site of the inflammation

- **Colitis**
  - Bleeding
  - Mucus
  - Urgency
  - Diarrhoea
- **Small bowel disease**
  - Abdominal pain
  - Weight loss
  - Tiredness/lethargy
  - Diarrhoea
  - Abdominal mass
- **Perianal**
  - Anal pain
  - Leakage
  - Difficulty passing stool

Issues in treating IBD

- The diseases are very variable
- Complications can arise both from the diseases and their treatment
- Many patients have self management plans, and treatment can be easily escalated if symptoms flare
- Patients may need to be evacuated if they are systemically unwell or if it is not clear what is going on

Situations that may require intervention

- Acute presentations
  - Differential diagnosis
  - Active disease
  - Complications
    - Obstruction
    - Sepsis
  - Reasons for admission/evacuation

- Treatment related issues
  - Steroids
  - Immune suppressants
  - Biologics

Acute presentations

- Patients who start a voyage with disease under control but develop symptoms
- The key question is “is the disease active, and if so how severe is it?”
- The history and examination are very informative in deciding what to do
- Routine blood tests such as a FBC and CRP are also very helpful

Differential

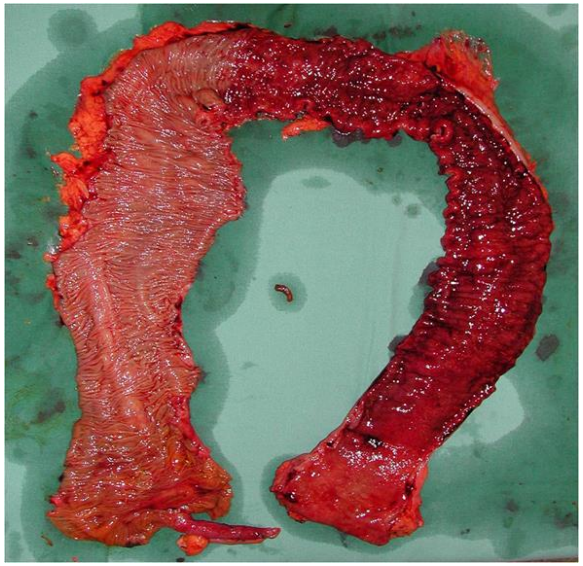
- Most important differential for active disease is infection
- The history is key
- If they have had the disease for a while they will often be familiar with the symptoms of a flare in themselves
- Need to be particularly aware of *C. diff*

Differential contd

- History and Examination
  - If the IBD is flaring there is often a subacute history of deterioration over days or even weeks
  - Infection tends to be more sudden with a potential precipitant
  - Bleeding can occur in either
  - The previous history of flares is often a good guide
  - BUT infection can trigger a flare of the IBD

Active disease

- Acute severe disease
  - Bloody diarrhoea more than x6/day associated with systemic features
    - Fever
    - Tachycardia
    - Raised inflammatory markers
    - Raised WCC
    - Low Hb



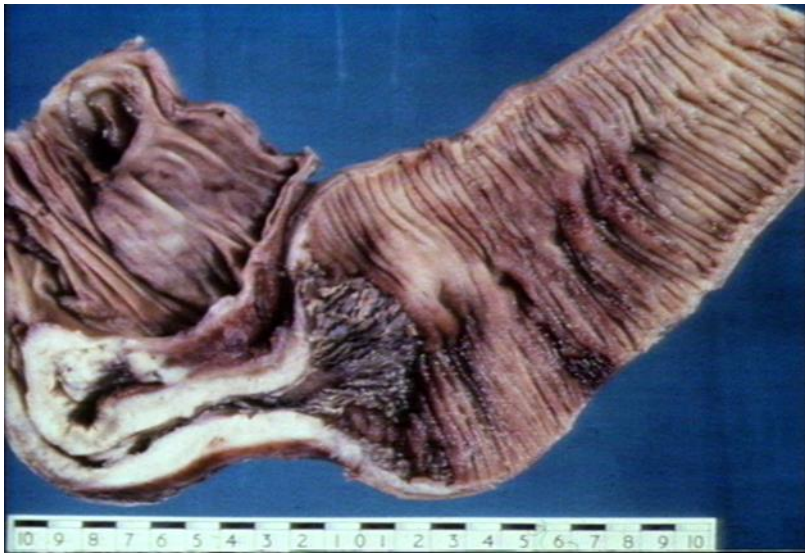
- These patients need to be in hospital

Disease complications

- More common in Crohn's disease than UC because Crohn's is a transmural disease and UC is limited to the mucosa

Obstruction

- Normally secondary to a Crohn's stricture
- Occasionally secondary to an obstruction colon Ca
- There may be a history of bloating and gurgling after eating
- This may develop into complete obstruction with bloating and vomiting and borborygmi
- There may be no warning at all



Obstruction cont‘d

- Often conservative treatment, with NBM +/- iv fluids will allow it to settle
- Steroids may help reduce oedema, but may mask signs of perforation
- Consider evacuating patients
  - If they are completely obstructed
  - They have rebound or guarding
  - They are systemically unwell – fever & tachycardia
  - If they do not improve within 24 hours with conservative measures

Sepsis

- Usually Crohn's disease
- Often insidious onset
- Patient feels generally unwell with swinging fever
- May be associated with perianal Crohn’s disease
- Abdominal pain is often prominent
- Usually due to abscess formation –perianal or intra-abdominal

Sepsis cont‘d

- Perianal abscesses may respond quickly to oral antibiotics
- In patients with abdominal symptoms use steroids with caution
- Cover with antibiotics if in doubt
- Patients who are systemically unwell with high inflammatory markers and WCC are likely to need imaging and possible surgical drainage and are likely to need to go ashore

The effects of IBD treatments

- Aminosalicylates
  - Normally very well tolerated
  - No significant risks –rare significant side effects include blood dyscrasias and renal failure
- Steroids
  - The group of drugs associated with the most morbidity in IBD

CORTICOSTEROIDS
Side Effects

Effects of IBD treatments

- Steroids cont‘d
  - Susceptibility to infection and gastric ulceration are important
  - In the context of acute illness steroids may mask the signs of perforation and

- Immune suppressants
  - Mainly Azathioprine or Mercaptopurine
  - Rarely Methotrexate
- Thiopurines take about 3 months to have a clinical effect
- Important side effects are Pancreatitis and leucopenia
- For prolonged or repeated infections FBC is important. The drug should be stopped if the WCC drops below 3, and them reviewed by a gastroenterologist

Biologics

- 3 anti-TNFs – Infliximab, Adalimumab & Golimumab
- Recent addition- Vedolizumab - $\alpha 4 \beta 7$ integrin inhibitor
- The anti-TNFs have quite significant effects systemically
- The anti-integrin should be much more gut focused as it prevents lymphocyte trafficking to the gut only

Anti-TNFs

- Generally well tolerated with relatively few side effects
- The most significant is the predisposition to TB
  - TB should be considered in patients on anti-TNFs travelling in endemic areas, particularly if the symptoms are generalised and in any way unusual
  - There may be a slight tendency to increased infections generally, but shouldn‘t change the way these are treated
  - Patients shouldn‘t take their anti-TNFs if they have an ongoing infection