Bowels

- Investigations
  - Red Flags (for 2 week referral)
    - Rectal bleeding & change in bowel habit for 6 weeks
    - Rectal bleeding without anal symptoms in those over 45 yrs
    - Iron deficiency anaemia without obvious cause
    - Palpable abdo / rectal mass
    - 2 episodes of FOB+ separated by a period of time
  - Value of investigations
    - FOB
      - CRC national screening programme
        - Aged 60 - 69; two yearly
      - 2% FOB + (10% of these will have CRC)
      - Test is not very sensitive, although is used for risk reduction
    - Sigmoidoscopy
      - Screen for left sided lesions
        - 90% sensitivity & 99% specificity
      - Limitations
        - Acceptability and cost
        - Does not pick up right sided lesions
    - Colonoscopy
      - Examines the entire colon
      - Perforation rate (0.2%) is higher than sigmoidoscopy (0.01%)
      - Limitations
        - Costs, need for sedation, acceptability, limited availability of trained staff
- Diverticular Disease
  - Definitions
    - Diverticulum
      - Outpouching of the gut wall
    - Diverticulosis
      - Diverticula are present
    - Diverticular disease
      - Implies diverticula are symptomatic
    - Diverticulitis
      - Inflammation of diverticulum
  - Pathology
    - Patient has had motions which are hard to pass and becomes constipated
    - Acquired colonic diverticula are the most common type
    - Most occur in the sigmoid colon (95% complication occur at this site)
    - Lack of dietary fibre leads to high intraluminal pressure > forces mucosa to herniate through muscle layers of gut wall
    - 30% of westerners have diverticulosis by 60 yrs
  - Diagnosis
    - PR; sigmoidoscopy, barium enema, colonoscopy; CT
  - Management
    - Symptoms / Signs: altered bowel habit, left sided colic (relieved by defecation, nausea, flatulence
    - High fibre diet
    - Antispasmodics
    - Surgical resection may be resorted to
    - Stool softeners
  - Complications
    - Diverticulitis
      - Features: pyrexia, raised WCC & CRP / ESR, tender colon, localised peritonism
      - Treatment: analgesia, NBM, IV fluids, antibiotics
      - Pain - left iliac fossa
    - Perforation
      - Features: ileus, peritonitis, shock
      - 40% mortality
      - Treated as acute abdo
    - Haemorrhage
      - Usually sudden and painless
      - Common cause of big rectal bleeds
    - Fistulae
      - Enterocolic, colovaginal ir colovesical
      - Treatment is surgical
    - Abscesses
      - Features: swinging fever, leucocytosis, localised signs
      - Treatment: antibiotics with ultrasound guided drainage
    - Post infective strictures
      - May form in the sigmoid colon
- Bowel Cancer
  - Epidemiology
    - 2nd most common cause of cancer death
    - 32,000 cases per year, 50% mortality
    - More common in urban than rural areas
  - Genetic links / family history
    - No close relative affected CRC risk = 1 / 50
    - 1 close relative CRC risk = 1 / 17
    - 2 close relatives CRC risk = 1 / 10
  - Predisposing / protective factors
    - Predisposing: neoplastic polyps, UC, Crohn's, FAP, HNPCC, previous Ca, low fibre diet, red meat
    - Protective: NSAIDs and aspirin
  - Presentation
    - Left sided
      - bleeding / mucus PR, altered bowel habits, tenesmus, PR mass
    - Right sided
      - Weight loss, low Hb, abdo pain
    - Either
      - abdo mass, obstruction, perforation, haemorrhage, fistula
    - Significant symptoms
      - Rectal bleeding & change in bowel habit (35% risk of CRC); abdo / rectal mass (30% risk of CRC); iron def anaemia (30% risk of CRC)
  - Tests
    - FBC (microcytic anaemia), FOB
    - Proctoscopy, sigmoidoscopy, barium enema, colonoscopy (can be done virtually via CT)
    - CEA
      - Blood tumour marker for CRC
      - Crude screening method
      - Better for monitoring reoccurence
  - Distribution
    - 15 % caecum & ascending colon, 10% transverse colon
    - 5% descending colon, 25% sigmoid colon, 45% rectum
    - At least half are located in the sigmoid or rectum
  - Staging
    - Dukes
      - A - confined to bowel wall (90% 5 yr survival)
      - B - through bowel wall (65% 5 yr survival)
      - C - lymph node involvement (30% 5 yr survival)
      - D - distant mets (<10% 5 yr survival)
    - TNM
      - Tis - in situ (on mucosa)
      - T1 - submucosa
      - T2 - into muscle (muscularis propria)
      - T3 - into serosa
  - Spread
    - Local, lymphatic, by blood (liver, lung, bone), or transcoelomic
  - Management
    - T1
      - Could use transanal resection
        - 5% chance of leaving behind involved lymph nodes
    - T2
      - Surgery alone
      - Autonomic nerves can be affected by removal of rectal cancer
        - Risk of sexual and bladder dysfunction
    - T3
      - Pre-op radiotherapy (due to risk of leaving cancer behind)
      - Then surgery
    - T4
      - Pre-op radiotherapy + / - chemotherapy
      - Then surgery