# Gastroenterology in the Primary Care


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250 years of EXCELLENCE in medical education, research & innovation and healthcare

# Topics

This presentation covers 3 major and common topics of gastroenterogy in primary care:

- Abdominal pain
- Acute gastroenteritis and vomiting
- Colorectal cancer prevention & screening

# General considerations

- The abdominal pain is the most common complaint of the patients visiting a GP's office.
- Usually GPs can only rely on **physical examination** and taking the **previous medical history** during investigation of the cause of abdominal pain.
- You have **to make a decision** based on limited information whether to treat the patient by yourself or to refer to secondary care.

# Abdominal pain

Most patients with abdominal pain do not have acute pathology, let alone a need for urgent surgery,
but **it's vital to spot the ones who do**.

Primary care is often the first or only port of call for the patient, so there's no margin for mistakes.

You will regret it if you rush your assessment and get it wrong.

You do not need to make an exact diagnosis.

You only need a **working diagnosis** to guide your management.

**Safety netting** can be the difference between life and death.

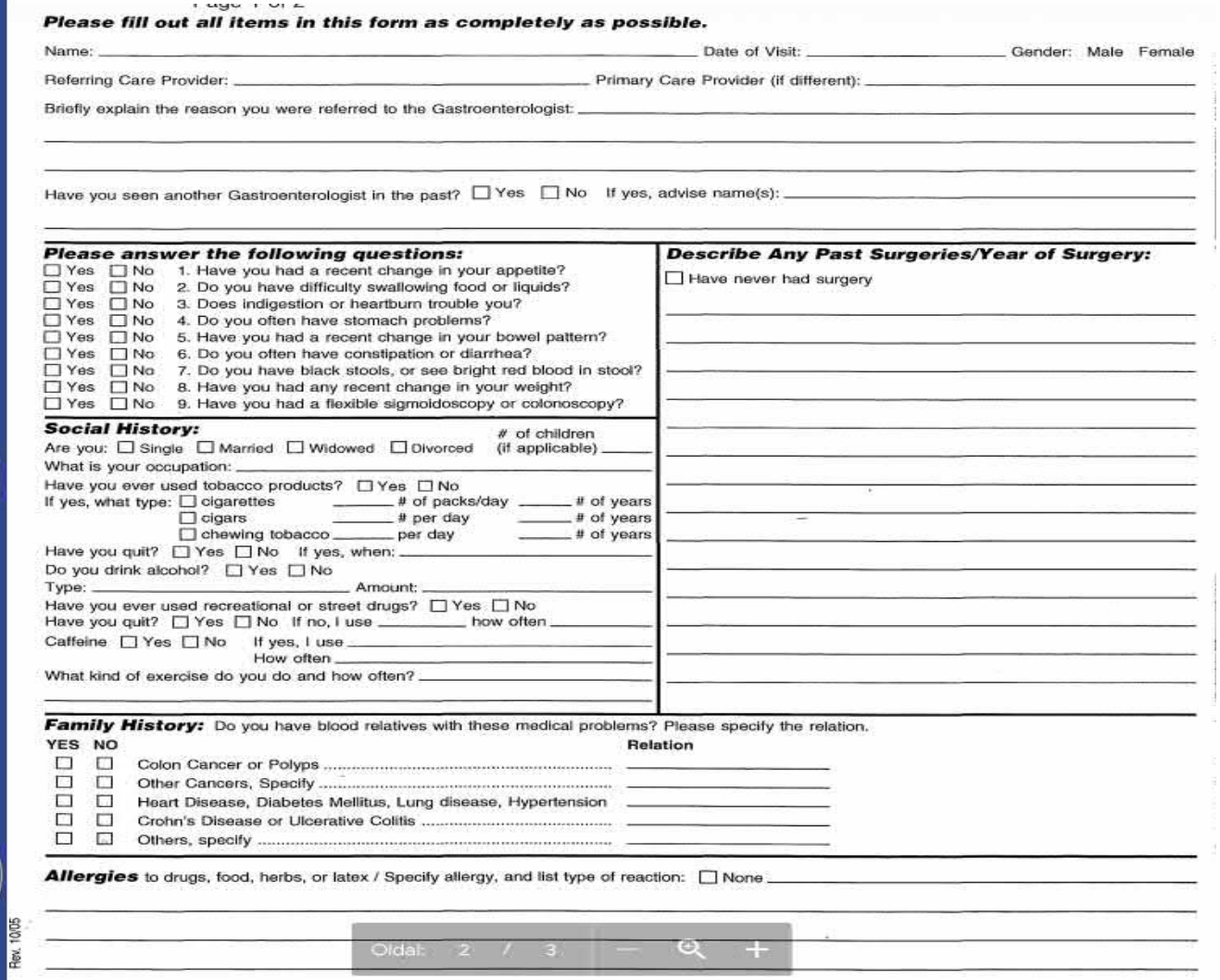
# History / Anamnesis

Let the patient tell you about the pain, but be sure to fill in the gaps, noting especially **when** the pain started and **what** it is like
(using SOCRATES or similar).

**SOCRATES**

- **S**ite of the pain - Where did it start and where is it now?
- **O**nset: how long? How did it start? Change over time?
- **C**haracter of pain: colicky pain comes and goes in waves—results from GI obstruction, renal/biliary colic, gastroenteritis or IBS
- **R**adiation
- **A**ssociated symptoms, e.g. nausea, vomiting, diarrhoea
- **T**iming/pattern, e.g. constant, rapid, colicky, relationship to food
- **E**xacerbating/relieving factors—including previous treatments tried
- **S**everity 1-10/10

# History / Anamnesis



***Please fill out all items in this form as completely as possible.***

Name: _____ Date of Visit: _____ Gender: Male Female

Referring Care Provider: _____ Primary Care Provider (if different): _____

Briefly explain the reason you were referred to the Gastroenterologist: _____

Have you seen another Gastroenterologist in the past? ☐ Yes ☐ No If yes, advise name(s): _____

***Please answer the following questions:***

☐ Yes ☐ No 1. Have you had a recent change in your appetite?
☐ Yes ☐ No 2. Do you have difficulty swallowing food or liquids?
☐ Yes ☐ No 3. Does indigestion or heartburn trouble you?
☐ Yes ☐ No 4. Do you often have stomach problems?
☐ Yes ☐ No 5. Have you had a recent change in your bowel pattern?
☐ Yes ☐ No 6. Do you often have constipation or diarrhea?
☐ Yes ☐ No 7. Do you have black stools, or see bright red blood in stool?
☐ Yes ☐ No 8. Have you had any recent change in your weight?
☐ Yes ☐ No 9. Have you had a flexible sigmoidoscopy or colonoscopy?

***Social History:***

Are you: ☐ Single ☐ Married ☐ Widowed ☐ Divorced # of children (if applicable) _____
What is your occupation: _____
Have you ever used tobacco products? ☐ Yes ☐ No
If yes, what type: ☐ cigarettes _____ # of packs/day _____ # of years
☐ cigars _____ # per day _____ # of years
☐ chewing tobacco _____ per day _____ # of years
Have you quit? ☐ Yes ☐ No If yes, when: _____
Do you drink alcohol? ☐ Yes ☐ No
Type: _____ Amount: _____
Have you ever used recreational or street drugs? ☐ Yes ☐ No
Have you quit? ☐ Yes ☐ No If no, I use _____ how often _____
Caffeine ☐ Yes ☐ No If yes, I use _____
How often _____
What kind of exercise do you do and how often? _____

***Describe Any Past Surgeries/Year of Surgery:***

☐ Have never had surgery

***Family History:*** Do you have blood relatives with these medical problems? Please specify the relation.

| YES | NO | | Relation |
|---|---|---|---|
| ☐ | ☐ | Colon Cancer or Polyps | |
| ☐ | ☐ | Other Cancers, Specify | |
| ☐ | ☐ | Heart Disease, Diabetes Mellitus, Lung disease, Hypertension | |
| ☐ | ☐ | Crohn's Disease or Ulcerative Colitis | |
| ☐ | ☐ | Others, specify | |

***Allergies*** to drugs, food, herbs, or latex / Specify allergy, and list type of reaction: ☐ None _____

Rev. 10/05

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# History / Anamnesis

**Current Medications** *(including prescription medications and over-the-counter drugs such as aspirin, vitamins and herbs):*

| | Medication Name | Dose | How Often | Reason for taking it |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |

***Are you being treated for any health problems associated with the areas listed below?***

| YES | NO | | Specify |
|---|---|---|---|
| ☐ | ☐ | Recent fever, chills, sweats or weakness | |
| ☐ | ☐ | Seizures, stroke, or other neurologic disease | |
| ☐ | ☐ | Vision, or hearing problems | |
| ☐ | ☐ | Hypertension or heart attack | |
| ☐ | ☐ | Chest pain, palpitations, valve disease, or murmur | |
| ☐ | ☐ | Coronary artery disease, congestive heart failure | |
| ☐ | ☐ | Dizziness | |
| ☐ | ☐ | Asthma, shortness of breath, or emphysema | |
| ☐ | ☐ | Kidney, urinary bladder or prostate problems | |
| ☐ | ☐ | Blood in urine, or burning on urination | |
| ☐ | ☐ | Liver disease | |
| ☐ | ☐ | Gynecological problems | |
| ☐ | ☐ | Diabetes, Thyroid disease | |
| ☐ | ☐ | Skin rash, hives or eczema | |
| ☐ | ☐ | Arthritis, muscle or joint aches | |
| ☐ | ☐ | Depression, anxiety, other psychiatric problems | |
| ☐ | ☐ | Bleeding problems, bruises | |
| ☐ | ☐ | HIV/AIDS | |

**Filled out by:** _____ **Date:** _____

***Please bring this form with you on the day of your appointment. Thank you!***

**Reviewed by:** _____ **Date:** _____

***Signature/Title***

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# Previous Medical History / Anamnesis

Take the previous medical history.
Ask about:

- **Have you ever had this pain before**?' - Previous episodes (and what helped) can guide you this time, especially with biliary pain.
- **Vomiting** and bowel movements.
- Classic symptoms of obstruction: **colicky pain**, vomiting and constipation (no flatus or stools).
- Does the patient feel **bloated** or **distended**?
- Any **weight loss**?
- Are there **genito-urinary symptoms**? Think UTI and pelvic inflammatory disease.
- When was the **last menstrual period** (LMP)? Ask: 'Was it a completely normal period for you?'
- **Ischaemic heart disease** is linked with ischaemic colitis and with aortic aneurysm.
- Is the patient on **medication**?
- What about **alcohol**? Excess intake can lead to pancreatitis or acute alcoholic hepatitis.
- Don't forget **travel** (malaria, parasitic infections) and trauma (splenic rupture).
- **Family history** can be important in sickle cell disease, pancreatitis and irritable bowel syndrome, amongst other conditions.

# Examination

- Check the colour and feel of the **skin**, **pulse**, **blood pressure**, respiratory rate and oxygen saturation
- Is your patient **shocked** or **dehydrated**?
- Signs of **anaemia** or **jaundice**?
- Is there **fever**? This suggests inflammation but isn't specific to sepsis.
  The elderly often have little fever and no tachycardia even in advanced sepsis.
- Can you smell a **foetor**? This is more likely in appendicitis and other forms of sepsis within the gut.
- Always **examine the abdomen:**
  - Record **site of pain**, look for guarding/rebound **tenderness**, for any **masses**,
  - visible peristalsis and signs of trauma.
  - Site of the pain can be important, however it may be misleading.
  - Listen for **bowel sounds**. They are usually absent in generalised peritonitis, and may be increased in obstruction
- Rectal / vaginal examination as needed
- Check the **hernial orifices** and palpate the scrotum (testicular torsion can start with abdominal pain).
- Consider urine **dipstick**/finger prick **blood glucose testing** as needed.

# Examination

**Abdominal Exam**:
appearance, distention, bruits, bowel sounds, organomegaly, tenderness, guarding, rebound, rigidity, and **presence or absence of pulsatile mass**
**Genital**:
Males – check for hernia, testicular swelling, mass or tenderness;
Females – pelvic exam for discharge, cervical motion tenderness, adnexal masses or tenderness, bleeding, tissue or lesions
**Rectal:** Stool hemoccult positive or negative

# Signs of Peritonitis

Peritonitis is the inflammation of the peritoneum, which may be due to chemical irritation, infection or trauma.

Peritoneal irritation can be localised or generalised.

Is there any sign of peritoneal irritation?

# Signs of Peritonitis

Signs of peritoneal irritation includes:

- **Pain** on coughing
- Pain on percussion
- Rebound **tenderness**.
- **Guarding** is a sign too, but it can be absent.

Peritoneal irritation tends to be more serious if it is generalised rather than local, but it is always significant.

If the pain is worse on movement, it's more likely to be peritonitis.

Peritonitis is an emergency situation.

# Origins / types of Pain

- Generalised pain
- Referred pain
- Medical causes

# Generalised Abdominal Pain

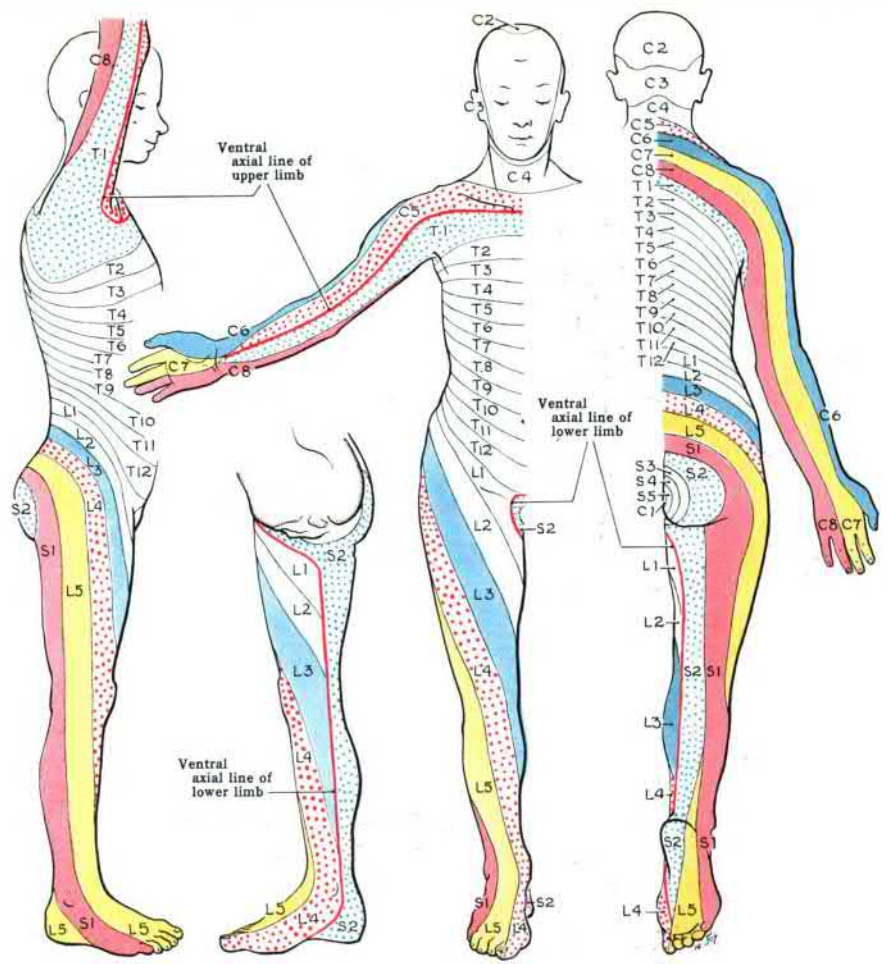
**Generalised** pain can occur in many conditions, including:

- early **obstruction**
- generalised **peritonitis** (including acute pancreatitis)
- **gastroenteritis**
- lactose **intolerance** or food **allergy**
- IBS (Irritable bowel syndrome )
- excess flatus

# Referred Abdominal Pain

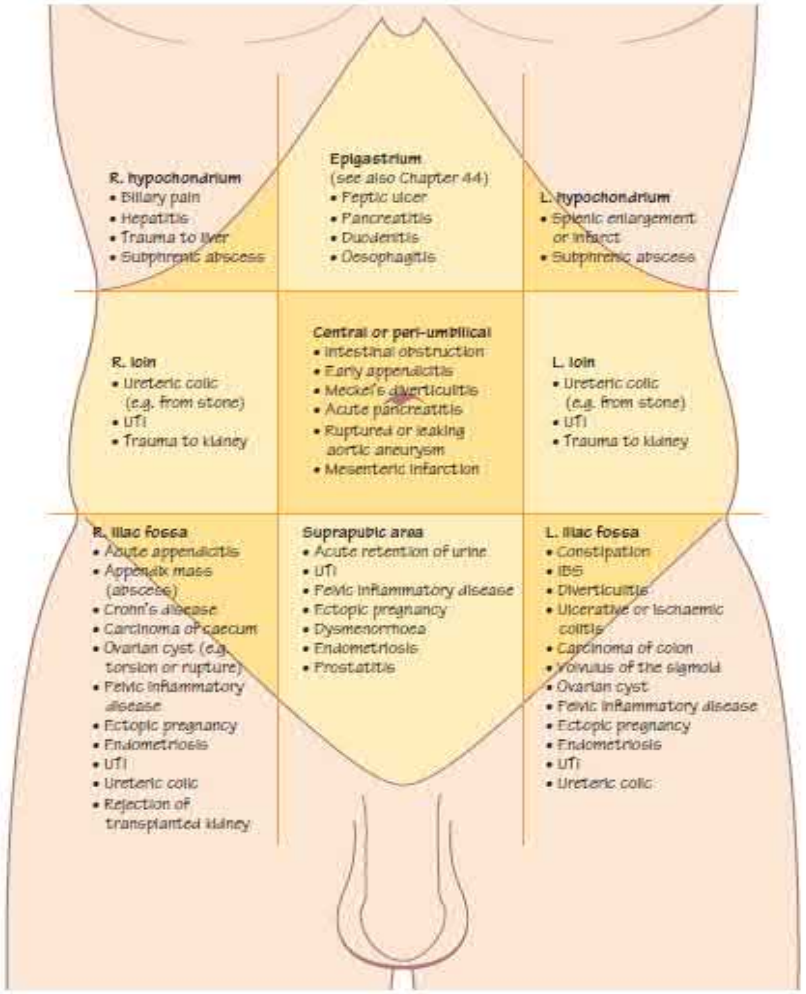
Referred pain can originate

- in the **spine**,
- **intercostal** nerves or
- the **pleura**.



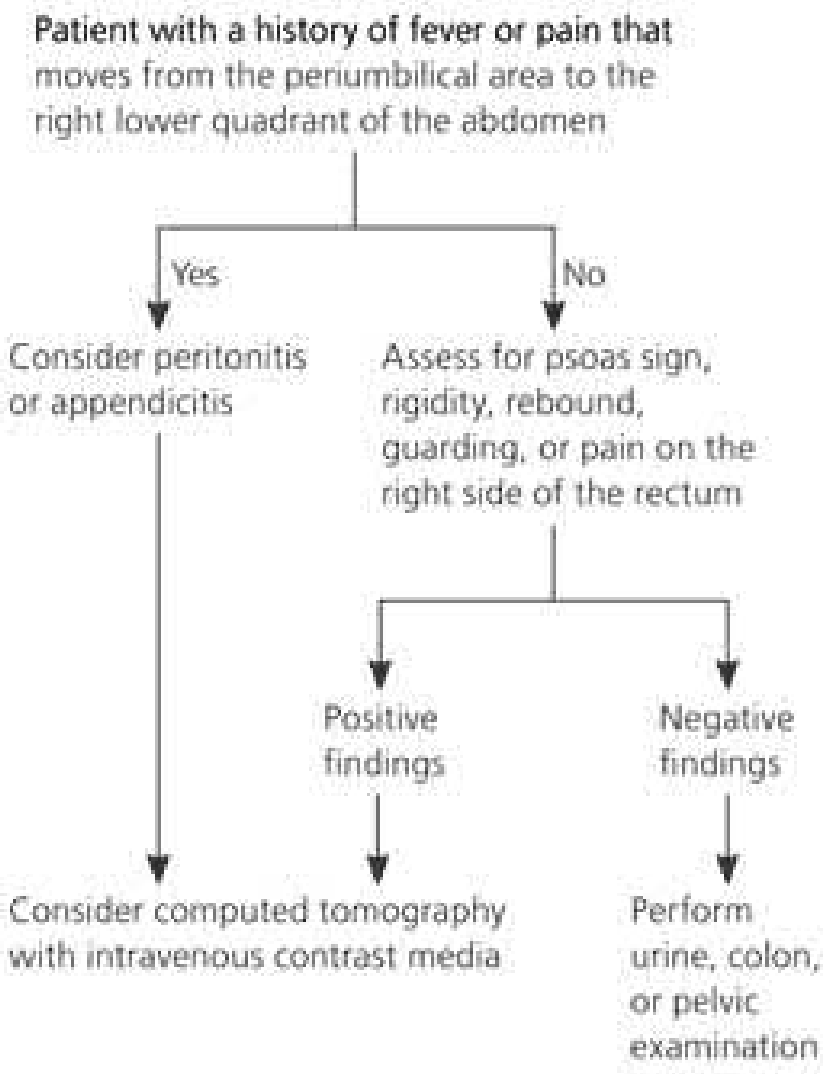
# Site of the Pain

The site of the pain can be important and can guide you during the differential diagnosis.



# Differential diagnosis / Gastrointestinal

**Evaluation of Right Lower Quadrant Abdominal Pain**

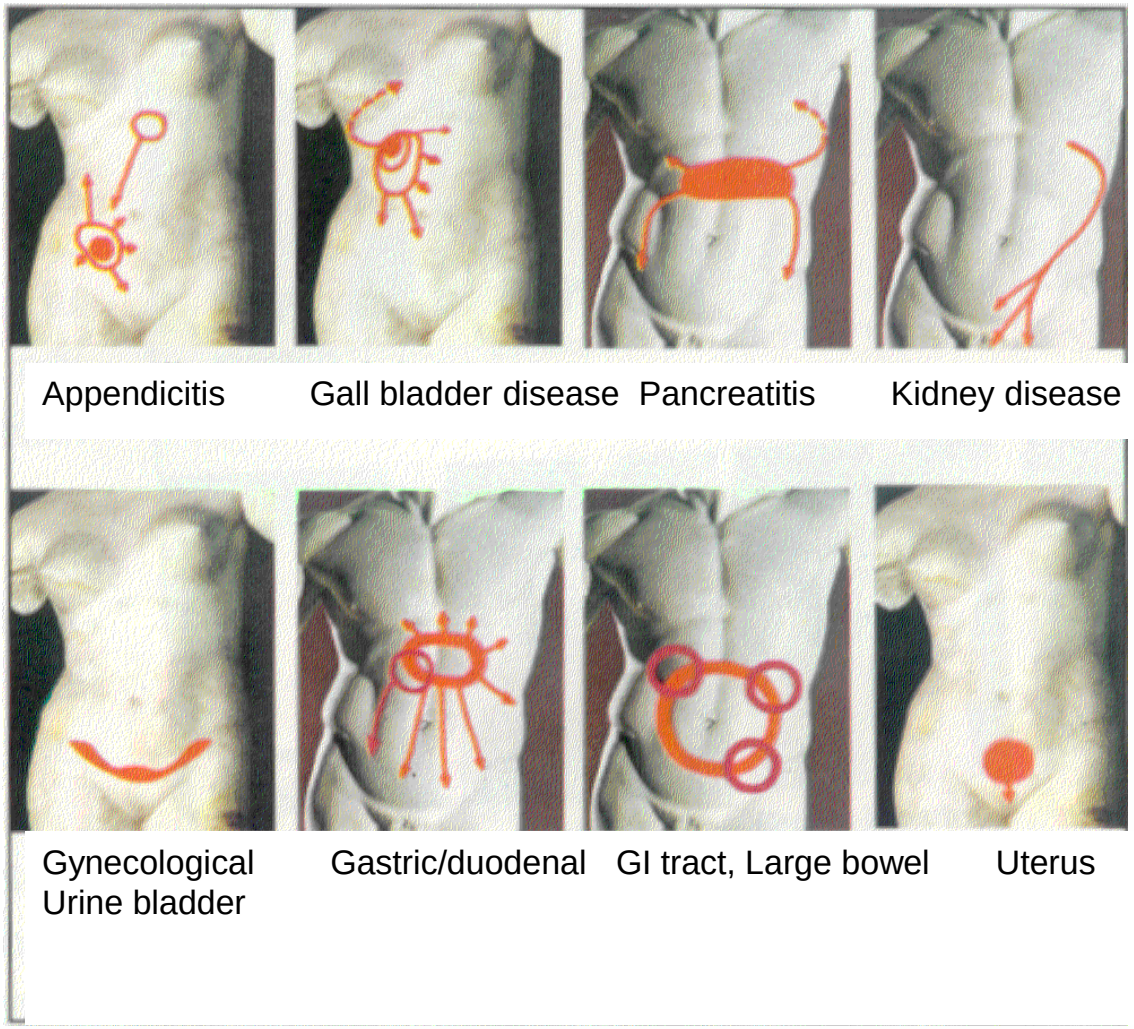



Algorithm: Patient with a history of fever or pain that moves from the periumbilical area to the right lower quadrant of the abdomen

Evaluation of Acute Abdominal Pain in Adults
https://www.aafp.org/afp/2008/0401/p971.html

# Differential diagnosis of abdominal pain

- Gastrointestinal
- Renal/urological
- Gynaecological
- Metabolic
- Other intra or extra-abdominal



# Differential diagnosis / Gastrointestinal

- **Surgical intervention** required:
  - Perforated bowel
  - Bowel obstruction
  - Intussusception
  - Strangulated hernia
  - Volvulus
  - Appendicitis
  - Meckel’s diverticulum
  - Gall bladder disease
  - Pancreatitis
  - GI malignancy

# Differential diagnosis / Gastrointestinal

- **Medical intervention** required
  - Gastritis
  - Peptic ulcer
  - Gastroenteritis
  - Crohn's/UC
  - IBS
  - Constipation
  - Diverticular disease
  - Liver disease
- In some cases surgical intervention is required, too.

# Differential diagnosis / Renal/urological

- Renal colic
- UTI
- Pyelonephritis
- Urinary retention/hydronephrosis
- Henoch–Schönlein purpura
- Torsion of the testis

# Differential diagnosis / Gynaecological

- Ectopic pregnancy
- Dysmenorrhoea
- Endometriosis
- Pelvic inflammatory disease
- Ovarian torsion
- Ovarian cyst—bleed/rupture
- Gynaecological malignancy

# Differential diagnosis / Other intra-abdominal

- Ruptured spleen
- Leaking/ruptured AAA
- Mesenteric ischaemia
- Mesenteric adenitis
- Sickle cell crisis
- Subphrenic abscess

# Differential diagnosis / Other extra-abdominal

- Shingles/post-herpetic neuralgia
- Spinal arthritis
- Muscular pain
- Acute coronary syndrome
- Chronic cardiac failure
- Pneumonia

# Investigations

- Further investigations are depending on your findings during the examination.
- You may find urine dipstick (nitrites, WBCs or RBCs suggest UTI) and pregnancy test useful. Check glucose in diabetic patients.
- Most tests take time (blood check-up e.g. FBC, CRP, amylase) and/or take place in secondary care, e.g. abdominal X-ray, erect chest X-ray and ultrasound scans.

# Management

- By now you should have a good idea of how ill your patient is, and what with.
- Patients may need an **emergency ambulance**, for instance:
  - obstruction,
  - peritoneal irritation
  - hypovolaemia
  - for leaking aortic aneurysm,
  - perforated peptic ulcer
  - acute pancreatitis.
- If you are not sure what is wrong, ask yourself if it could possibly be serious. If so, get help from secondary care without delay.
- In this case, tell the patient not to eat or drink anything more until seen in hospital.

# Urgent referral for upper GI symptoms

- **Urgent referral** to a team specializing in **upper GI malignancy**, patients presenting with:
  - Dysphagia
  - Unexplained upper abdominal pain and weight loss ± back pain
  - Upper abdominal mass without dyspepsia
  - Obstructive jaundice (depending on clinical state) - consider urgent USS (ultrasound scan) if available
- **Consider urgent referral** to a specialist in upper GI malignancy:
  - Persistent vomiting and weight loss in the absence of dyspepsia
  - Unexplained weight loss or iron deficiency in the absence of dyspepsia
  - Unexplained worsening of dyspepsia and Barrett's oesophagus; known dysplasia, atrophic gastritis or intestinal metaplasia; or peptic ulcer surgery >20y ago

# Urgent specialist referral

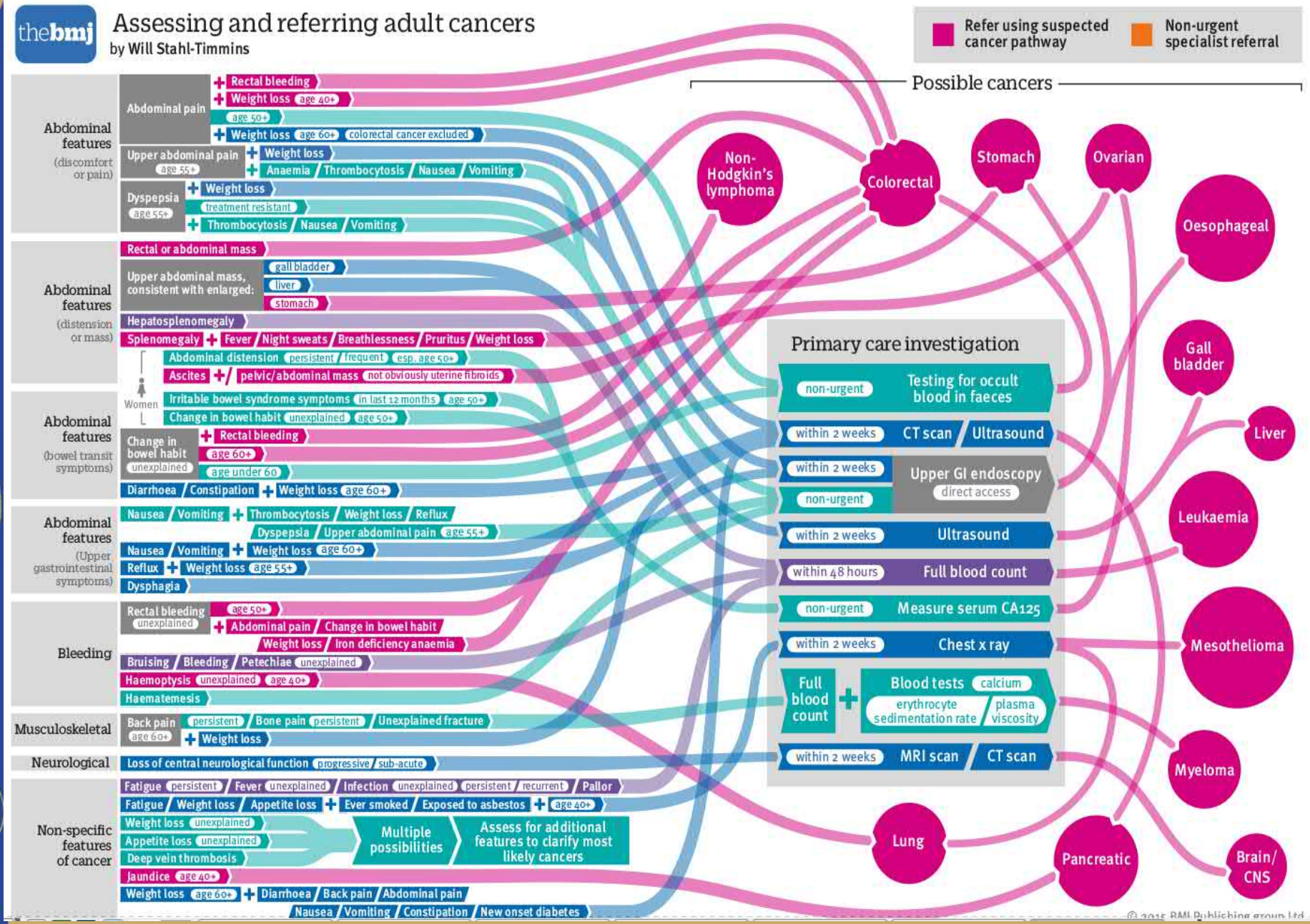
**Consider urgent specialist referral or referral for urgent endoscopy**

- Patients of any age with dyspepsia and:
  - Chronic GI bleeding
  - Dysphagia
  - Progressive unintentional weight loss
  - Persistent vomiting
  - Iron deficiency anaemia
  - Epigastric mass
  - Suspicious barium meal result
- Urgent referral for endoscopy
  - Any patient ≥55y and with unexplained (i.e. no obvious cause, e.g NSAIDs) and persistent, recent-onset dyspepsia alone.
  - GPs should not allow symptoms to persist >4–6 weeks before referral.
- ! Helicobacter pylori status should not affect the decision to refer for suspected cancer.
- ! Consider checking FBC to exclude iron deficiency anaemia in all patients presenting with new-onset dyspepsia.

# Urgent referral for lower GI symptoms

**Refer urgently to a team specializing in lower GI malignancy if:**

- **Any age with:**
  - Right lower **abdominal mass** consistent with involvement of large bowel
  - A palpable rectal mass (intraluminal, not pelvic; a pelvic mass outside the bowel would warrant an urgent referral to an urologist)
  - **Unexplained iron deficiency anaemia** (Hb ≤110g/dL for man, ≤100g/dL for a non-menstruating woman)
- Aged ≥40y
  - Reporting rectal bleeding with a change of bowel habit towards looser stools
  - and/or increased stool frequency persisting ≥6 weeks.
- Aged ≥60y with:
  - Rectal bleeding persisting for ≥6wk without a change in bowel habit and without anal symptoms
  - Change in bowel habit to looser stools and/or more frequent stools persisting for ≥6wk without rectal bleeding


thebmj
Assessing and referring adult cancers
by Will Stahl-Timmins
Refer using suspected cancer pathway
Non-urgent specialist referral
Possible cancers
Abdominal features (discomfort or pain)
Abdominal pain
Rectal bleeding
Weight loss age 40+
age 50+
Weight loss age 60+ colorectal cancer excluded
Upper abdominal pain age 55+
Weight loss
Anaemia / Thrombocytosis / Nausea / Vomiting
Dyspepsia age 55+
Weight loss
treatment resistant
Thrombocytosis / Nausea / Vomiting
Abdominal features (distension or mass)
Rectal or abdominal mass
Upper abdominal mass, consistent with enlarged:
gall bladder
liver
stomach
Hepatosplenomegaly
Splenomegaly + Fever / Night sweats / Breathlessness / Pruritus / Weight loss
Abdominal features (bowel transit symptoms)
Women
Abdominal distension persistent / frequent esp. age 50+
Ascites +/ pelvic/abdominal mass not obviously uterine fibroids
Irritable bowel syndrome symptoms in last 12 months age 50+
Change in bowel habit unexplained age 50+
Change in bowel habit unexplained
Rectal bleeding
age 60+
age under 60
Diarrhoea / Constipation + Weight loss age 60+
Abdominal features (Upper gastrointestinal symptoms)
Nausea / Vomiting + Thrombocytosis / Weight loss / Reflux
Dyspepsia / Upper abdominal pain age 55+
Nausea / Vomiting + Weight loss age 60+
Reflux + Weight loss age 55+
Dysphagia
Bleeding
Rectal bleeding unexplained age 50+
Abdominal pain / Change in bowel habit
Weight loss / Iron deficiency anaemia
Bruising / Bleeding / Petechiae unexplained
Haemoptysis unexplained age 40+
Haematemesis
Musculoskeletal
Back pain persistent age 60+ / Bone pain persistent / Unexplained fracture
Weight loss
Neurological
Loss of central neurological function progressive / sub-acute
Non-specific features of cancer
Fatigue persistent / Fever unexplained / Infection unexplained persistent / recurrent / Pallor
Fatigue / Weight loss / Appetite loss + Ever smoked / Exposed to asbestos + age 40+
Weight loss unexplained
Appetite loss unexplained
Deep vein thrombosis
Multiple possibilities
Assess for additional features to clarify most likely cancers
Jaundice age 40+
Weight loss age 60+ + Diarrhoea / Back pain / Abdominal pain
Nausea / Vomiting / Constipation / New onset diabetes
Non-Hodgkin's lymphoma
Colorectal
Stomach
Ovarian
Oesophageal
Gall bladder
Liver
Leukaemia
Mesothelioma
Myeloma
Brain/ CNS
Pancreatic
Lung
Primary care investigation
non-urgent Testing for occult blood in faeces
within 2 weeks CT scan / Ultrasound
within 2 weeks / non-urgent Upper GI endoscopy direct access
within 2 weeks Ultrasound
within 48 hours Full blood count
non-urgent Measure serum CA125
within 2 weeks Chest x ray
Full blood count + Blood tests calcium erythrocyte sedimentation rate / plasma viscosity
within 2 weeks MRI scan / CT scan
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# Differential diagnosis

Medical history and clinical examination must focus on **red flags and signs for inflammatory or malignant diseases**.

Despite the frequency of **functional abdominal pain**, potentially dangerous causes of abdominal pain need to be excluded.

See the patient twice in the case of severe and acute abdominal pain if lab parameters or radiological examinations are normal.

# Acute diarrhoea

GPs play an important role in **preventing and managing communicable** diseases, for example in case of acute diarrhoea. Some gastrointestinal diseases should be **reported** to public health authorities.

You have to take **special attention** if the patient is involved in food processing, or working with young children or elderly (vulnerable) people. In this case, you have to order stool culture and the patient have to **stay away from** nursery, school or **work** until infectious.

**Isolation** helps preventing the spread of the diseases.

# Acute diarrhoea

Passing **3 or more** loose or watery stools **a day**, lasting for **fewer than 14 days**.

It is very common, affecting almost every adult every year (although most people won't see a doctor about it).

**Most cases** are caused by infective **gastroenteritis**, which is often accompanied by vomiting and **resolves on its own within 2–4 days.**

# Acute diarrhoea

But the **GP also needs to be alert** to the rarer but more serious causes of diarrhoea:

- inflammatory bowel disease
- coeliac disease or bowel can

Infective diarrhoea needs investigation and treatment.

More persistent diarrhoea may point to irritable bowel syndrome or lactose intolerance.

Look out for **systemic complications** of diarrhoea:

- dehydration
- sepsis
- abdominal disease

# Acute diarrhoea / History

Clarify **what the patient means by** diarrhoea:

- people often use the term to mean passing normal stools frequently, or any minor change in their normal bowel habit.

**How long** has the patient had diarrhoea?
If more than a week, identify persistent infectious and non-infectious causes.

Does the patient have **any idea about what has caused** their diarrhoea?

Have they eaten anything unusual recently, or are they in touch with people who have similar symptoms (this could suggest an infective cause)?

Ask about recent foreign **travel** (raises the possibility of ‘traveller’s diarrhoea’).

# Acute diarrhoea / History

Ask about **past medical history** (e.g. thyroid disorders, diabetes, HIV or existing gastrointestinal conditions).

Ask about **medications**, including recent treatment with antibiotics (risk of Clostridium difficile infection).
Many medications (not only laxatives) have diarrhoea listed as a possible side effect.

Ask about **associated symptoms**, such as abdominal pain, vomiting or blood in stools.

Mild colicky abdominal cramps often accompany acute gastroenteritis, but more severe or constant abdominal pain could point to irritable bowel syndrome, diverticulitis or even an acute abdomen.

**Diarrhoea with vomiting** is a common presentation of infective gastroenteritis, but could have another cause such as systemic illness, medication side effects or diverticulitis.

# Acute diarrhoea / Red flags

Bear in mind the following **red flags** to guide further investigations or treatment:

- Change in bowel habit for **>6 weeks** (must exclude bowel cancer)
- Rectal **bleeding**: inflammatory bowel disease (IBD; e.g. ulcerative colitis or Crohn's disease), colorectal cancer, some infectious causes (e.g. Campylobacter, Salmonella, Shigella, Yersinia, toxogenic Escherichia coli)
- **Weight loss**: significant weight loss may indicate malignancy
- **Dehydration**
- **Sepsis**
- **Systemic** illness

# Acute diarrhoea / Examination

In the acutely unwell, check **vital signs** and **temperature**.

About half of patients with infective diarrhoea have a raised temperature, compared with 10% in non-infective diarrhoea.

Assess **hydration**.

Examine the **abdomen**, noting any **masses**, **tenderness** or **guarding** (mild tenderness is not unusual in gastroenteritis, but bear in mind diverticulitis or acute abdomen).

Gastroenteritis often causes increased **bowel sounds**.

Consider a **rectal examination** if there are any red flag signs or if there is any possibility of ‘overflow’ diarrhoea caused by constipation (particularly in the elderly).

# Acute diarrhoea / Investigations

After a week, or if particular concerns, the following tests may be considered in general practice:

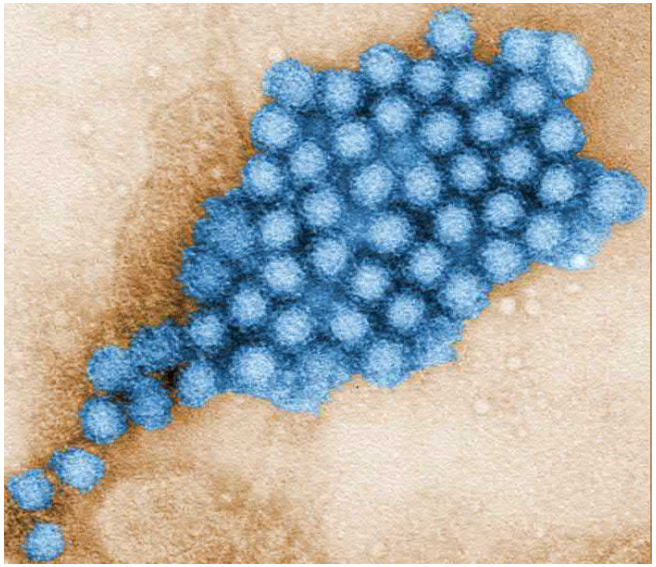
- Stool culture (to detect and identify bacteria/virus),
  Stool samples for ova, cysts and parasites and/or for faecal blood
- Urinalysis: specific gravity may be high if dehydrated
- FBC: lower haemoglobin (Hb) or raised ESR (erythrocyte sedimentation rate) and/or CRP may suggest IBD or colorectal cancer: white cell count (WCC) may indicate infection or inflammation
- Urea and electrolytes: severe diarrhoea may cause electrolyte imbalance
- Coeliac screen
- Thyroid function tests
- In hospital: colonoscopy or tests for malabsorption (e.g. lactose intolerance)

# Adult gastroenteritis / important causes

- Viruses
  - Norovirus
- Bacteria
  - Salmonella
  - Escherichia coli 0157
  - Campylobacter
- Protozoa
  - Giardia
  - Cryptosporidium

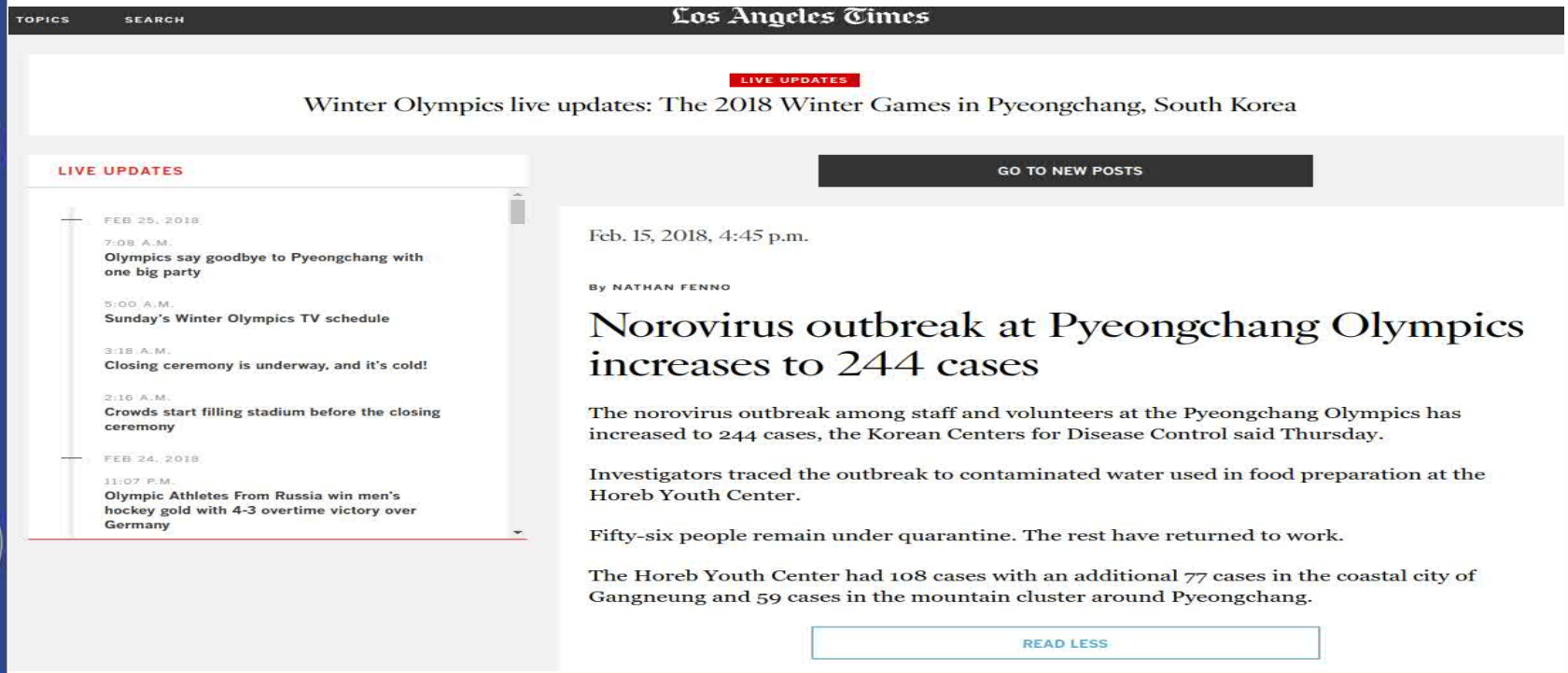
# Adult gastroenteritis / Norovirus

- Commonest cause of viral infectious gastroenteritis – also known as '**winter** vomiting disease' due to its seasonality and typical symptoms
- **Symptoms**
  - Vomiting, diarrhoea, fever
  - Generally mild, usually recover in 2–3 days
- **Transmission**
  - Person to person by the faecal oral route;
  - contaminated food and water
  - Incubation period: usually 24–48 hours
- **Management**
  - Supportive
  - Rehydration



# Adult gastroenteritis / Norovirus

- Serious problems during 2018 Winter Olympics in South Korea
- >200 people got sick, >1000 security guards replaced by military
- Source unknown, maybe from contaminated water



TOPICS SEARCH

Los Angeles Times

LIVE UPDATES

Winter Olympics live updates: The 2018 Winter Games in Pyeongchang, South Korea

LIVE UPDATES

FEB 25, 2018

7:08 A.M.
Olympics say goodbye to Pyeongchang with one big party

5:00 A.M.
Sunday's Winter Olympics TV schedule

3:18 A.M.
Closing ceremony is underway, and it's cold!

2:16 A.M.
Crowds start filling stadium before the closing ceremony

FEB 24, 2018

11:07 P.M.
Olympic Athletes From Russia win men's hockey gold with 4-3 overtime victory over Germany

GO TO NEW POSTS

Feb. 15, 2018, 4:45 p.m.

By NATHAN FENNO

## Norovirus outbreak at Pyeongchang Olympics increases to 244 cases

The norovirus outbreak among staff and volunteers at the Pyeongchang Olympics has increased to 244 cases, the Korean Centers for Disease Control said Thursday.

Investigators traced the outbreak to contaminated water used in food preparation at the Horeb Youth Center.

Fifty-six people remain under quarantine. The rest have returned to work.

The Horeb Youth Center had 108 cases with an additional 77 cases in the coastal city of Gangneung and 59 cases in the mountain cluster around Pyeongchang.

READ LESS

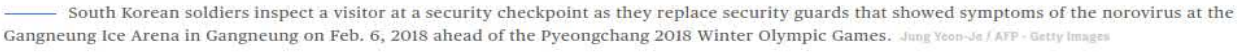
# Adult gastroenteritis / Norovirus

NEWS

HEALTH NEWS

## Norovirus at the Olympics: a sticky problem

by Maggie Fox / Feb.07.2018 / 10:51 PM ET / Updated Feb.08.2018 / 1:39 PM ET



South Korean soldiers inspect a visitor at a security checkpoint as they replace security guards that showed symptoms of the norovirus at the Gangneung Ice Arena in Gangneung on Feb. 6, 2018 ahead of the Pyeongchang 2018 Winter Olympic Games. Jung Yeon-Je / AFP - Getty Images

The International Olympic Committee (IOC) has a sticky mess to tackle with an outbreak of norovirus right before the Winter Olympics opens.

The IOC said it was isolating 1,200 people handling security for the PyeongChang Olympics and distributing leaflets about preventing infection after 41 security guards were hospitalized with vomiting. On Friday, officials said 86 people were sick, including food preparation staff.

South Korea has moved military troops in to handle security in the interim.

# Adult gastroenteritis / Norovirus

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## Cooking water suspected cause of Olympics norovirus outbreak

BY **NEWS DESK** | FEBRUARY 13, 2018

Cooking water is emerging as the likely source of a foodborne norovirus outbreak, predominately among security staff, at the Winter Olympics in South Korea.

As of Monday, Korea's public health authorities had confirmed 194 cases of norovirus in the outbreak, according to the *Korea Herald*. No athletes have been confirmed with the highly contagious virus. Of the confirmed cases, 147 patients have recovered and returned to work, with 47 still in quarantine.

Cooking water at a facility in the PyeongChang, the host city for the games, was possibly contaminated, the Korea Centers for Disease Control and Prevention said in an interim report. The lodging facility housed more than 1,000 people, mostly private security staff for the Winter Games.

Korean authorities reported Monday that the number of new cases has fallen off since the lodging facility stopped serving meals. However, the *Tribune News Service* reported cases have been confirmed outside the mountain town of Pyeongchang.

Of the new cases added to the outbreak count on Monday, nine are in Gangneung, which is located on the coast. The venues for Olympic hockey and figure skating competitions are in Gangneung.

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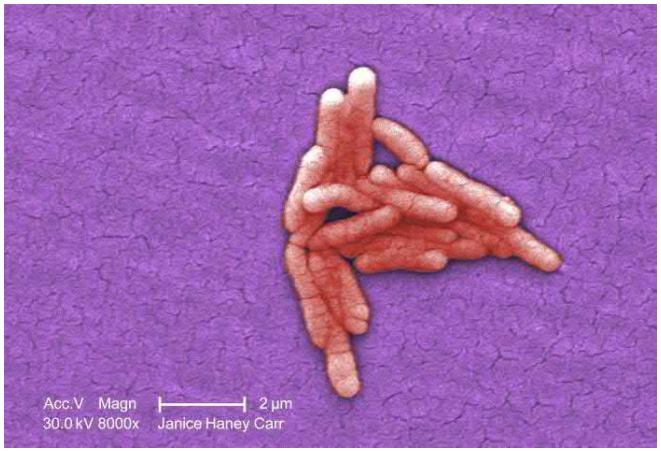
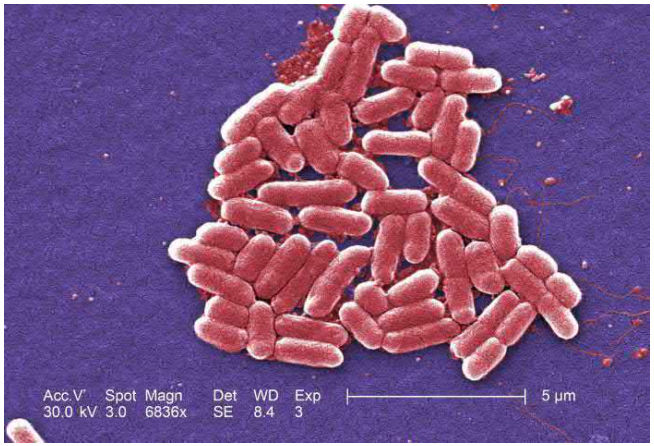
# Adult gastroenteritis / Salmonella

- **Salmonella Symptoms**
  - Diarrhoea, vomiting and fever
- **Transmission**
  - Predominantly from food-stuffs (most commonly red and white meats, raw eggs, milk and dairy products) following contamination of cooked food by raw food or failing to achieve adequate cooking temperatures
  - Incubation period: 12–72 hours
- **Management**
  - Supportive
  - antibiotics **not routinely** recommended



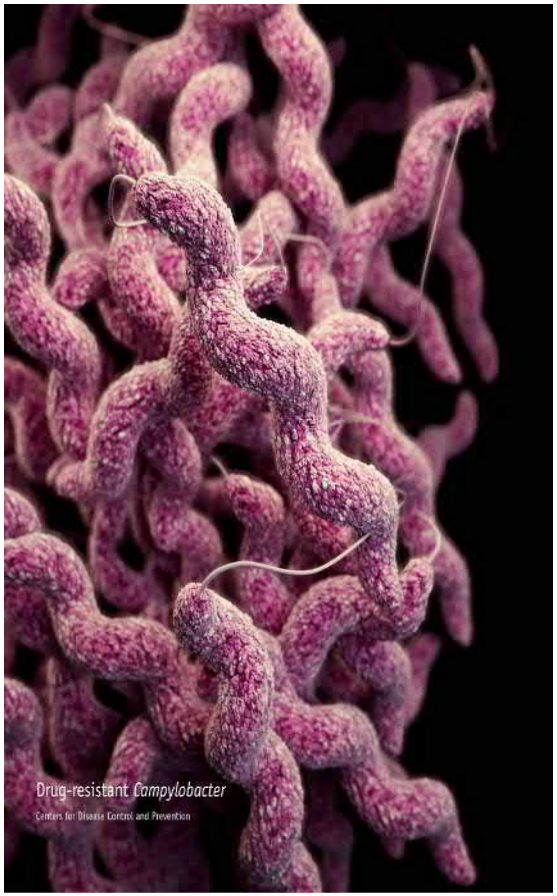
# Adult gastroenteritis / Escherichia coli 0157

- **E. coli Symptoms**
  - Mild to severe **bloody** diarrhoea
  - Can cause haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopaenic purpura (TTP) which affect blood, kidneys and occasionally central nervous system
  - Relatively rare cause in Hungary but can be fatal in infants, young children or elderly
- **Transmission**
  - Consuming food or water contaminated with faeces of infected animals
  - Also through contact with infected animals or with environment contaminated with faeces of infected animals, e.g. farms
  - Also human–human
- **Management**
  - Entirely supportive
  - no specific treatment



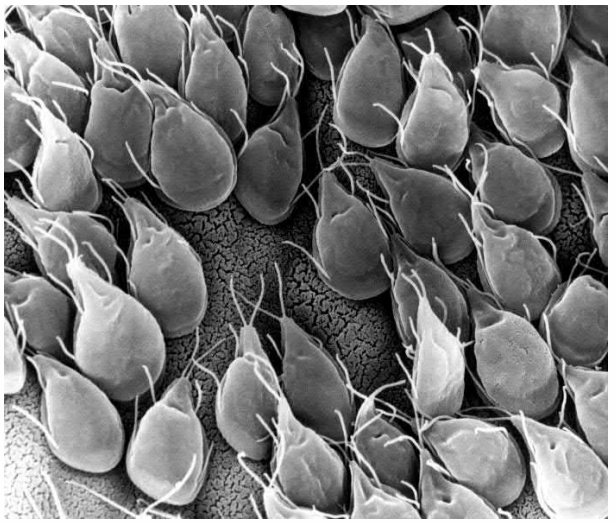
# Adult gastroenteritis / Campylobacter

- **Campylobacter**: the commonest cause of food poisoning in the UK
- **Symptoms**
  - Abdominal **pain**, profuse diarrhoea, malaise
  - Vomiting is uncommon
- **Transmission**
  - Raw or undercooked meat (especially poultry), unpasteurised milk, birdpecked milk on doorsteps, untreated water, and domestic pets with diarrhoea
  - Person to person if personal hygiene is poor
  - Incubation period: 1–11 days (usually 2–5 days)
- **Management**
  - Usually no specific treatment
  - If needed (e.g. severe or enduring symptoms or in immunocompromised), a **macrolide** antibiotic or **ciprofloxacin**



# Adult gastroenteritis / Gardia

- **Gardia Symptoms**
  - Diarrhoea, abdominal cramps
- **Transmission**
  - Person to person
  - Foodborne transmission is rare
  - Faecal-oral in young children
  - Waterborne
  - Spread within families is common
  - Incubation period: 5–25 days
- **Management**
  - Antibiotics: **metronidazole**



# Adult gastroenteritis / Management

**In most cases** of acute diarrhoea in general practice management consists of **reassurance and advice** after careful assessment.

**Safety netting** is important in acute diarrhoea:

- **explain what you expect** to happen if your working diagnosis is right, and then **what the patient should do** if symptoms **worsen or persist**.

Severe **dehydration** requires immediate **admission to hospital** for urgent rehydration.

The management of acute diarrhoea is a good example of how GPs often use the test of **time as a diagnostic approach**.

There may be one or more **planned reviews**, depending on the natural history of the condition and how the patient's symptoms develop.

# Vomiting

**Most cases** are caused by gastroenteritis or food poisoning, and are **self-limiting**.

There are many possible causes to bear in mind:

- gastroenteritis (often with diarrhoea)
- acute viral labyrinthitis
- pregnancy
- acute abdomen (e.g. appendicitis)
- hyperglycaemia and hypoglycaemia
- pyelonephritis
- migraine
- medication (e.g. cytotoxics, some antibiotics)
- intestinal obstruction
- meningitis
- bulimia
- raised intracranial pressure (e.g. brain tumor)
- renal failure
- acute glaucoma

# Vomiting / Examination

- Assess **hydration status**: BP, pulse rate; dry mouth, lower skin turgor, sunken eyes, or sunken fontanelle (babies) are all late signs
- **Abdomen**: masses, distension, tenderness, bowel sounds
- For **children**: look for **other sources** of infection, e.g. ENT, chest, UTI
- As with diarrhoea, **dehydration** is the big danger.
- Ask about **medication**. Vomiting can be **caused** by medications, but it can also **affect the efficacy** of medications people take (e.g. contraception, anti-epileptics, steroids, opioids, chemotherapy).

# Vomiting / Alert

- **Vomiting with headache should ring alarm bells:** migraine can do this, but don't miss more serious causes such as **meningitis** or **raised intracranial pressure**.
- **Anti-emetics** can be helpful in some circumstances, but watch out for **side effects** or **hiding** the real diagnosis.

# Advice for patients with diarrhoea and/or vomiting

- **Drink plenty of fluids.** This is to avoid becoming dehydrated, a particular danger if you are vomiting as well. Take frequent small sips of water or diluted fruit juice. **Avoid milk or dairy products** as this can worsen symptoms. Soup can help replace lost salts and fluid.
- **Rehydration salts.** You may be advised to use rehydration salts which you can buy in sachets at a pharmacy. They contain the right balance of sugar, salt and water that your body needs to prevent dehydration.
- **Eat only when you begin to feel like it.** If you don't feel like eating you must continue to take fluids frequently. The latest advice is to eat carbohydrates (plain pasta, rice, bread, potatoes) as soon as you feel like it.
- **Anti-diarrhoea medication.** Medications such as loperamide can relieve the symptoms of uncomplicated diarrhoea in adults. They shouldn't be used if there is blood in the stools or any suggestion of bowel obstruction or colitis, and are not recommended for children.
- **Antibiotics are generally unnecessary** in simple gastroenteritis because the condition usually resolves without them, and the cause is usually viral. But antibiotics are often needed to treat bacterial infections such as Campylobacter enteritis, severe salmonellosis, shigellosis or protozoal infection such as Giardia lamblia.
- **Prevention.** Handwashing after using the toilet; longer cooking and rewarming times; prompt consumption of food.

# Lower gastrointestinal symptoms

- From rectal bleeding to a change in bowel habit, GPs encounter the whole range of lower gastrointestinal symptoms, sometimes in the same patient.
- The common lower gastrointestinal conditions:
  - Colorectal cancer
  - Crohn's disease
  - Ulcerative colitis
  - Irritable bowel syndrome
  - Diverticular disease
  - Coeliac disease
  - Haemorrhoids

# Colorectal cancer

- Colorectal cancer is 2nd most common cause of cancer morbidity and mortality in Hungary (both men and women).
- Therefore it is recommended for every patient >50 years to have a colonoscopy, repeated in every 10 years.


Credit: Annie Cavanagh, Wellcome Images
Colour-enhanced image of human colon cancer cells in culture.

# CC / Protective and risk factors

- **Lifestyle factors**
  - **Obesity** (**higher** risk by 15% if overweight, and 30% if obese)
  - **Dietary factors**: diets with less red and processed meat, and more vegetables, fibre, fish, and milk are associated with decreased risk (diet is thought to explain geographic variations)
  - **Alcohol** (**increased** risk for heavy drinkers, especially if also low folate)
  - **Physical activity** (increased physical activity can **decrease** risk by 30%)
  - **Smoking**
- **Medication history**
  - **Hormon Replacement Therapy** (risk **decreased** by 20% if ever taken; decreased by 30% if taking HRT currently)
  - **Combined Oral Contraceptive pill** (risk **decreased** by 18% if ever taken)
  - **Statins** (risk is **decreased** after 5 years use)
  - **Aspirin** (75mg/day taken for >5 years will **decrease** risk by 40%)
- **Other medical history**
  - History of gall bladder disease and/or cholecystectomy (50% increase in risk)
  - Type 2 diabetes (30% increase in risk)
  - UC or Crohn's disease ( increased risk )

# Colorectal cancer screening

- Screening for colorectal cancer is available throughout Hungary.
- **Screening** aims to detect colorectal cancer at an **early stage** to increase survival chances.
- Patients presenting with tumour confined to the bowel wall have >90% long-term survival. Without screening, most tumours are detected at advanced stages and overall 5 years survival is about 50%.
- At patients without additional risk factors and **aged above 50 years, one step screening** with **colonoscopy** is the recommended protocol, repeated every 10 years.
- If the patient does not accept colonoscopy, we use a 2 steps approach: first a test of occult blood in the stool (faeces) sample. If positive, colonoscopy is indicated. Blood test should be repeated every 2 years.
- The **CEA** (Carcinoembryonic Antigen) is used to measure the success of treatment (measured before and after surgery).
  It is **not suitable for screening** of colorectal malignancy.
- Other options for screening include: X-ray of the gastrointestinal tract, virtual colonoscopy (with MRI or CT), DNA test of stool sample.

# Family history

If a patient has one first-degree **relative** (mother, father, sister, brother, daughter, or son) **with colorectal cancer**, risk of developing colorectal cancer is **higher by 2–3 times**.

# History

- Using **open questions** at the start of the consultation is the most efficient way to gather important clinical information.
- **Patients** are often understandably **uncomfortable** talking about lower gastrointestinal complaints (many avoid coming to the doctor at all), and may be anxious about any impending examinations you may need to do.
- So your empathic listening skills are especially important here.
- More specific, **closed questions** should cover the symptom areas, in particular red flag features to exclude serious pathology such as malignancy:
  - **Weight loss** (clarify how much, and whether intentional or not)
  - **Change in bowel habit** (clarify exactly what patient means, and for how long)
  - **Rectal bleeding** (ask about volume, colour and frequency)
  - **Fatigue and/or malaise** or symptoms suggesting anaemia (e.g. breathlessness)
  - **Family history** of colon cancer or other serious bowel conditions.

# Examination

- Your examination should be guided by the patient's history, but will usually include a full examination of the gastrointestinal system.
- Abdominal mass? Hepatomegaly? Ascites?
- Don't forget to check for **systemic signs** such as anaemia, mouth ulcers or skin conditions.
- A **rectal examination** (with consent and chaperone if requested) is a routine part of the abdominal examination.
- It is not only designed to pick up rectal masses: it may also reveal blood, prostate conditions, abscesses or fistulae, thrombosed piles, faecal impaction and perianal rashes.
- Also consider urinalysis.

# Management

If you suspect colorectal cancer then the patient should be referred urgently for further investigations such as lower gastrointestinal endoscopy under specialist care.

# Management

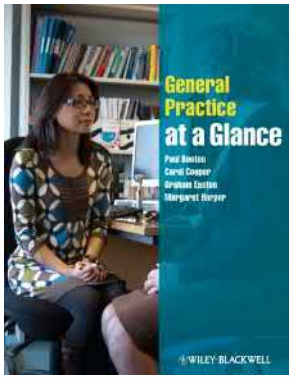
- **Specialist management**
  - Confirmation of diagnosis with sigmoidoscopy/colonoscopy and/or CT colonography.
  - If diagnosis is confirmed further investigations include liver function tests, tumour markers (carcino-embryonic antigen CEA is produced in >80% advanced tumours), CXR, CT/MRI and USS to evaluate spread.
- **Treatment**
  - Laparoscopic or open **surgical** resection when possible.
  - Staging based on findings at surgery dictates further management with **chemotherapy**.
  - For patients with more advanced disease, resection or radioablation of hepatic metastases may be an option.

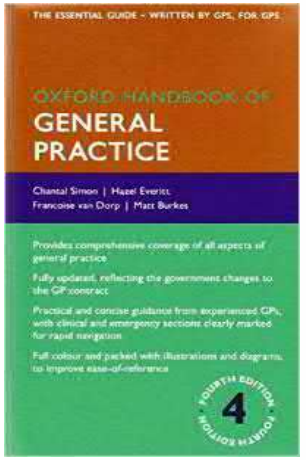
# Role of GP during management

- Provide **psychological support** for the patient and the family
- To **inform** the patient and the family before/after the surgery/chemotherapy, radiotherapy
- **Organize** home care, stoma nurse, physiotherapist.
- **Manage** the **side effects** of chemotherapy / radiotherapy (vomiting, lack of appetite, loss of hair etc.)
- Organize the follow-up of the patient.

# Sources, suggested readings:

- P Booton, C Cooper, G Easton, M Harper: General Practice at a Glance
- C Simon, H Everitt, F van Dorp, M Burkes: Oxford Handbook of General Practice
- https://www.uptodate.com/contents/causes-of-abdominal-pain-in-adults
- https://www.uptodate.com/contents/evaluation-of-the-adult-with-abdominal-pain
- https://www.uptodate.com/contents/overview-of-the-management-of-primary-colon-cancer



# Thank you for your attention!

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