

# Medications and bowel care

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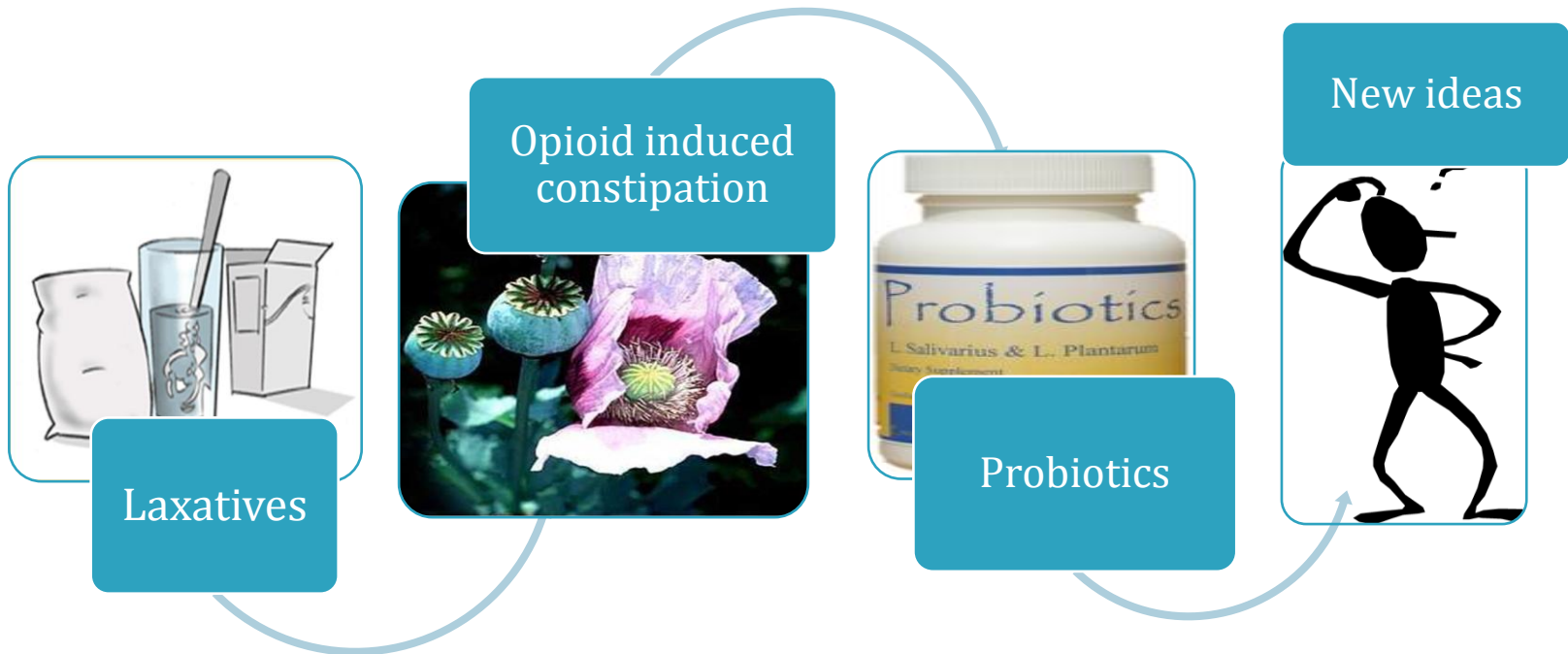
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# Medications and bowel care



# Laxatives

- Variety of laxatives available
- Many patients report high levels of dissatisfaction with laxative treatment
- Constipation is associated with impaired lower gastrointestinal motility, often with a reduction in the giant migrating contractions that normally drive mass transits through the large intestine.
- A logical approach to treat chronic constipation involves physiological stimulation of intestinal motility by targeting the neurons in the enteric nervous system

# Prucalopride (Resolor / Shire)

- Selective, high affinity agonist at serotonin 5-HT<sub>4</sub> receptors.
- Prucalopride exerts potent enterokinetic effects via the enteric nervous system neurons. -restoring the slow movement of the bowels
- NICE recently recommended Prucalopride as an option for the treatment of chronic constipation in women, in whom laxatives have failed to provide adequate relief and invasive treatment is being considered.
- At least two laxatives from different groups, at the highest tolerated recommended doses for at least 6 months, should have been tried.
- Evidence of Prucalopride long term efficacy is lacking.

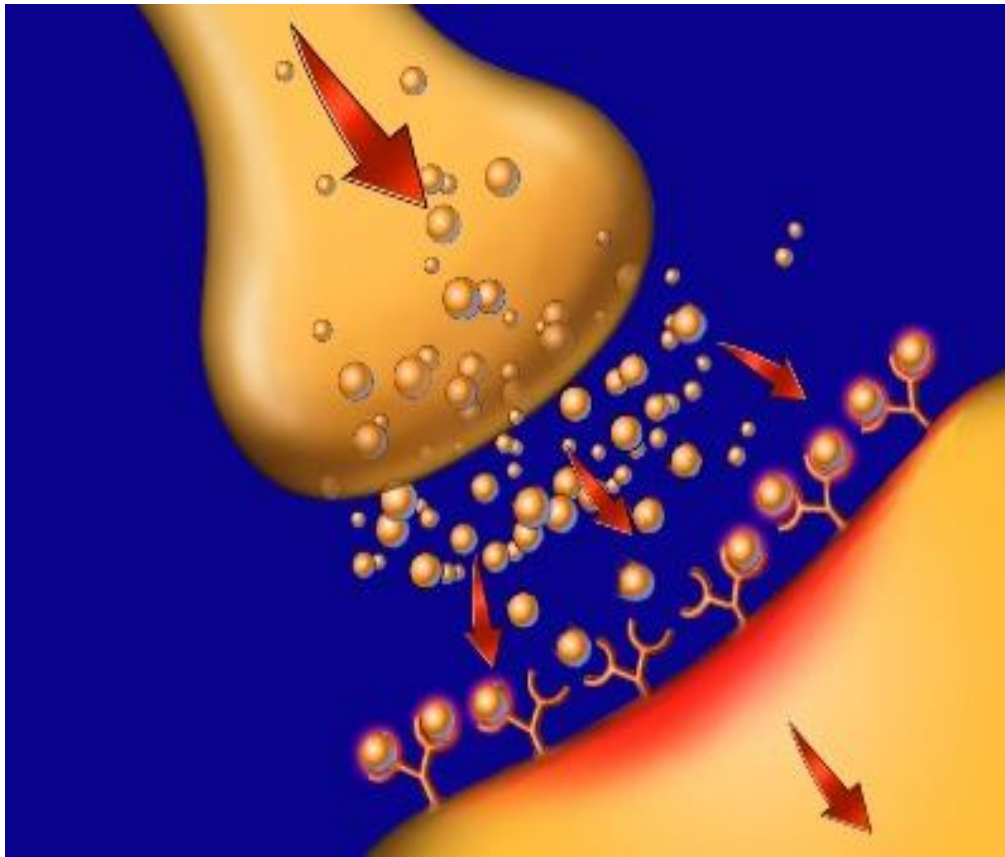
## Lactulose & inflammatory bowel disease

- Lactulose is fermented by gastrointestinal tract bacteria producing a considerable amount of hydrogen.
- It is proposed that lactulose is an indirect antioxidant that mobilises endogenous hydrogen production which in turn can reduce oxidative stress and ameliorate symptoms of inflammatory bowel disease.

# Burden of opioid induced constipation

- Profoundly affects patients' quality of life.
  - Refuse analgesia
  - Preoccupation with bowels
- Strain on carers
- Increased pain (abdominal)
- Confusion with malignant intestinal obstruction

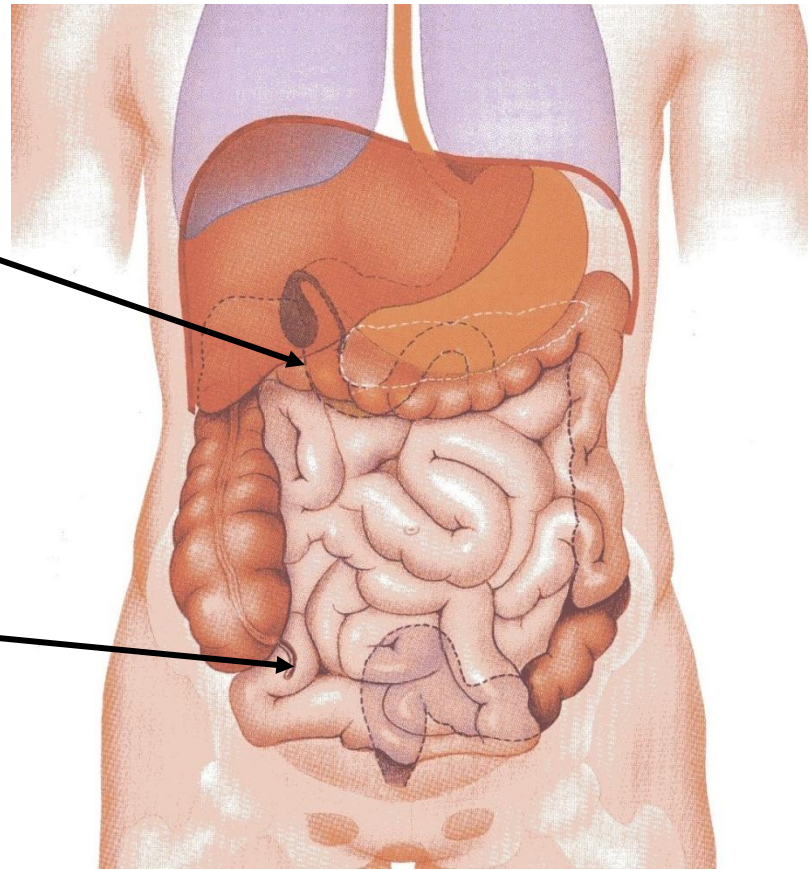
# Opioid induced constipation



- Existence of 3 main classes of opioid receptors *mu*, *kappa* and *delta* in the body.
- These are responsible for mediating the peripheral and central action of opioids.
- The gastrointestinal effects of opioids are predominantly mediated by the  $\mu_2$  receptors.

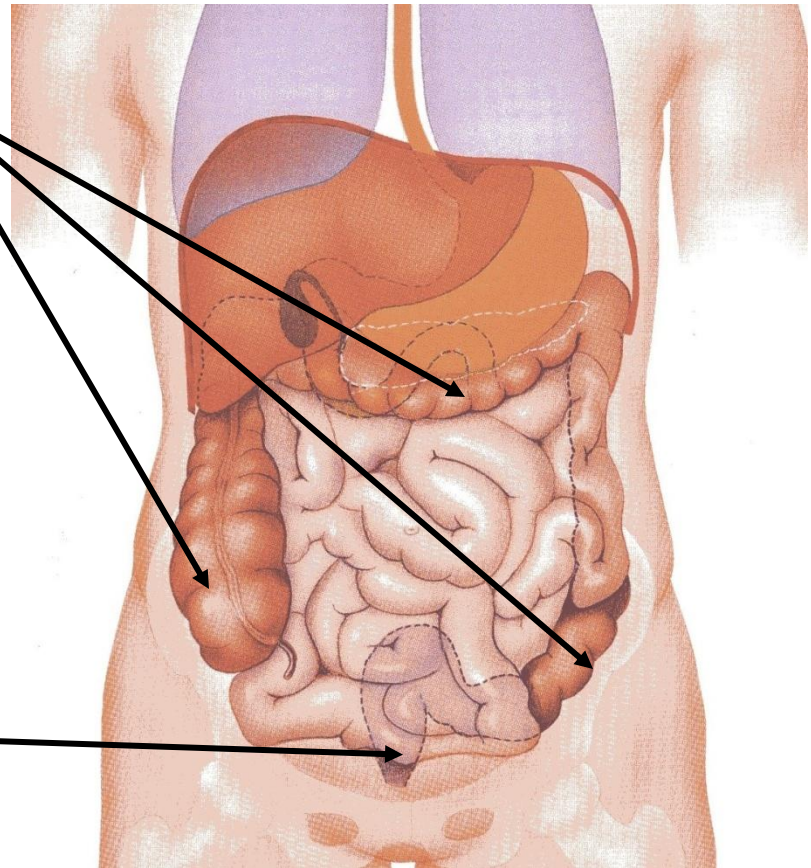
# Effects of opioids on the gut

- Delays gastric emptying due to constriction of pyloric sphincter
- Impaired transit through ileocaecal sphincter & the colon → weak **gastro colic reflex.**



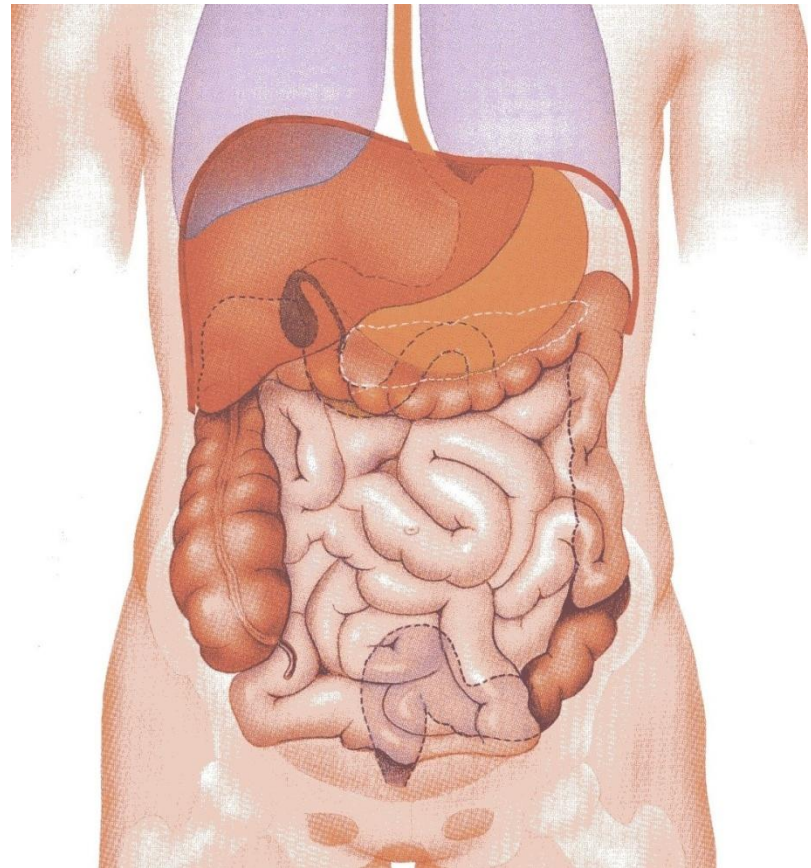
# Effects of opioids on the gut

- Reduction in propulsive component of gut motility, and increased non-propulsive activity due to enhanced ring contractions → leading to more efficient absorption of water and electrolytes.
- Enhanced internal anal sphincter tone – thus weakening the defaecation reflex



# Effects of opioids on the gut

- Acetylcholine reduced ↓ (excitatory neurotransmitter)
- Serotonin released, increases release of noradrenaline → inhibition of intestinal secretions



# Prescribing symptoms

- Constipation
  - Reduced number of bowel movements
  - Incomplete evacuation
  - Hard dry stool
  - Straining
  - Overflow diarrhoea
- Gastric fullness/ reflux
- Abdominal distension/ bloating
- Abdominal discomfort/ pain/ cramps
- Flatulence
- Nausea/ vomiting
- Hiccups
- Decreased appetite

Opioid-induced digestive tract dysfunction

# Management of opioid induced constipation.

Targinact (Napp) - oxycodone hydrochloride/naloxone hydrochloride

- oral
- Limited use
  - Max dose is 40mg /20mg slow release bd
- Avoid in renal or hepatic impairment

# Management of opioid induced constipation (OIC)



- Methylnaltrexone bromide (Relistor) is a selective peripheral antagonist of opioid binding at *mu* opioid receptors
- Methylnaltrexone bromide relieves OIC 12mg/0.6ml solution via subcutaneous injection
- Quick acting, short half life

# Management of opioid induced constipation.



- Bowel action experienced within 4 hours often much less
- Less invasive than rectal intervention.
- Enhances patients' QOL?
- Normal laxative therapy is maintained
- Contra indicated in malignant intestinal obstruction

# Probiotics - constipation



- Probiotics are now available in most supermarkets and regularly advertised in the media.
- Live organisms – labelled good bacteria?
- Minimal research into the efficacy of probiotics & relief of constipation
- No evidence in the management of constipation

# Probiotics – diarrhoea / inflammatory bowel disease



- Probiotics known to have an anti-inflammatory effect.
- Probiotics may offer a simple adjunct to conventional treatments of inflammatory bowel disease ([Shanahan 2000](#)).
- Probiotics shortened the duration of diarrhoea and reduce stool frequency in children with persistent diarrhoea ([Cochrane review 2010, Issue 12](#))

# Probiotics – diarrhoea / inflammatory bowel disease



- Probiotics reduce the duration of infectious diarrhoea by around 25 hours but size of effect varied between the studies reviewed - further research required (probiotic strain, cause of diarrhoea, severity etc) ([Cochrane review 2010 Issue 12](#))
- Probiotics were not associated with any adverse effects

# New thoughts - aspirin

- Taking even the lowest possible dose of aspirin (75mg) on a regular basis can ward off bowel cancer.
- The protective effect was seen in the public as a whole, not just those considered to be at risk of developing the disease.
- Researchers from the University of Edinburgh found that, after one year, taking a daily low dose of aspirin was associated with a 22 per cent reduction in the risk of developing the cancer, rising to 30 per cent after five years.
- Just under 2,800 people with bowel cancer and around 3,000 healthy people participated in the study, recently published in international journal Gut.

## New thoughts - aspirin

- Short term low dose aspirin prior to undertaking a faecal occult blood test (National Screening Programme) significantly increases the test's sensitivity for detecting advanced colorectal tumours.