









Pharmacy Advice For Pouch Patients

UCH U

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Aims of the session

- Pharmacokinetic
 - What is this?
 - Why is this important for pouch patients?
 - Why do use different routes of administration?
- Classification of medications
 - Prescription only medications
 - Prescription costs
 - Over the counter medications
- Medication in pregnancy and breastfeeding
- Where to find information



Pharmacokinetic

Pharmacokinetic

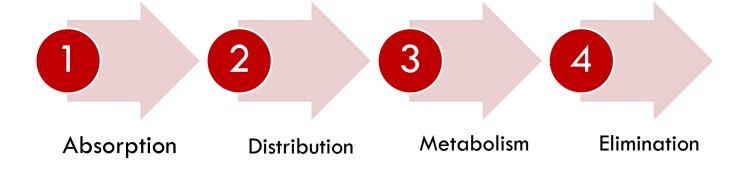
What is this?

'The movement of medication within the body'

- All medication are designed to target certain cell and receptors within the body
- Sufficient amounts of an active form of the medication must reach the site of action to elicit a pharmacological response
- Some drugs target receptors in the GI tract

Pharmacokinetics

ADME



Pharmacokinetic

Why is this important for pouch patients?

The most common route of medication administration is the oral route: Tablets, Capsules and Liquids

A = Absorption from the GI tract

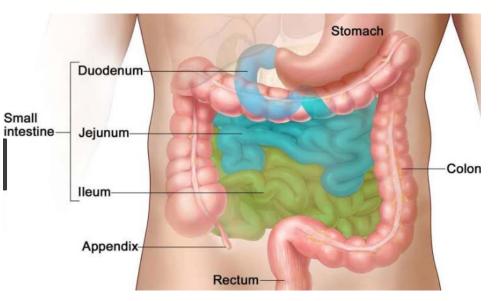
The majority of medications are absorbed from the jejunum

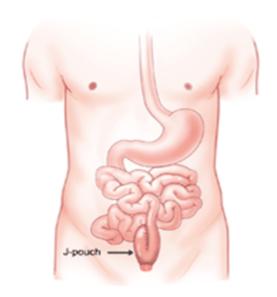
Oral Bioavailability

- The amount of medication that reaches the systemic circulation
- Based on healthy individuals

Pharmacokinetic

Why is this important for pouch patients?





A = Absorption

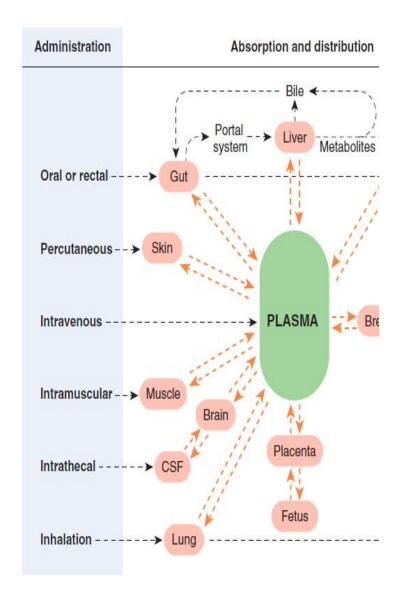
- ✓ The amount of medication that reaches the systemic circulation
- ✓ Oral Bioavailability
- ✓ Sufficient amounts of an active form of the medication reach the site of action to elicit a pharmacological response

<u>Caution</u>- preparations designed to release medication in the colon Important to explain your GI anatomy to anyone prescribing you medication



Research needed

The Main Routes of Drug Administration



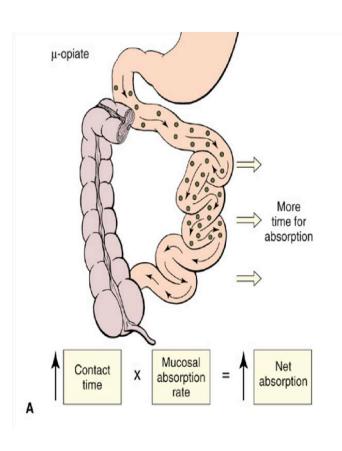


Classification of Medications

Prescription Only Medications (POMs)

Can only be prescribed by a healthcare professional with the relevant qualifications

Loperamide and Codeine: How do they work?



Acts on gut receptors

To reduce bowel movement

Allowing more contact time

So increasing absorption

Resulting in:

Reduces bowel frequency & quantity

Loperamide & Codeine



- Doses: Up to 16mg four times a day
- More favorable than codeine (no sedation)
- Very little absorption- GI action
- Capsules tablets liquid melts

Loperamide





- Doses: 30-6omg four times a day
- Exceeding maximum doses not recommended
- Pain relief
- Combination with paracetamol

Codeine





 Better outcomes when used together

Combination



Loperamide and Codeine: how to take

- How to take
 - 30minutes to 1 hour before meals
 - Allows drugs to work before eating
- □ Side effects
 - Balance with higher doses
 - Loperamide: abdominal pain, bloating, nausea, flatulence
 - Codeine: drowsiness, headaches, low blood pressure, nausea & vomiting

Loperamide- 8 in 24hrs label- not for you ©

Vitamin B12 Cyanocobalamin

A = Absorption from the end of the ileum

So need to give via an intramuscular injection

1mg every 1-3 months from GP or hospital

Vitamin D

A = Absorption form the jejunum

Oral: Colecalciferol 800-1000 units once a day intramuscular injection: Ergocalciferol 300 000 units 1-3 months from GP or hospital

Levels to monitor absorption of the drug

Pouchitis J. P. Segal et al.

1st line

Ciprofloxacin Metronidazole 2 weeks

2nd line

Tinidazole Rifaximin 4 weeks

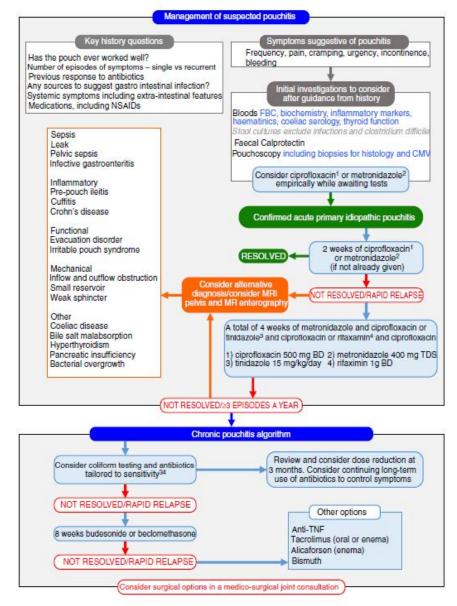


Figure 4 | Management algorithm for suspected pouchitis.

How to take

- Take regularly
- □ Take at the same time each day
- Ensure the timing fits in with your lifestyle
- □ Don't misses doses even if you are feeling better
- Finish your course

- To avoid antimicrobial resistance and relapse
- Which could lead to treatment escalation

Ciprofloxacin

Driving: May impair performance of skilled tasks (e.g. driving); effects enhanced by alcohol Absorption of ciprofloxacin reduced by oral antacids, calcium, iron, zinc salts, dairy products (give at least 2 hours before or 4 hours after ciprofloxacin)

Metronidazole

Avoid alcohol during course and for 5 days after stopping

Tinidazole

Same family of medication as metronidazole Possible interaction with alcohol

Rifaximin

Action in the GI tract very little aborption

Probiotics: VSL#3®

- No longer available on prescription via the GP
 - Can buy from Pharmacies and Health food stores

Powder:

containing 8 strains of live, freeze-dried, lactic acid bacteria Contains traces of soya, gluten, and lactose



Research needed

Other POMs used

- Amitriptyline
- Ispaghula husk
- Steroids
- Nitrofurantoin and Colistin
- Mesalazine
- Glyceryl trinitrate and Diltiazem
- Paracetamol
- Buscopan
- Dioralyte and St Mark's electrolyte mix
- Colestyramin and colesevelam

Prescription charges

http://www.nhs.uk/NHSEngland/Healthcosts/Pages/Prescriptioncosts.aspx

1st April 2019



£9 per item

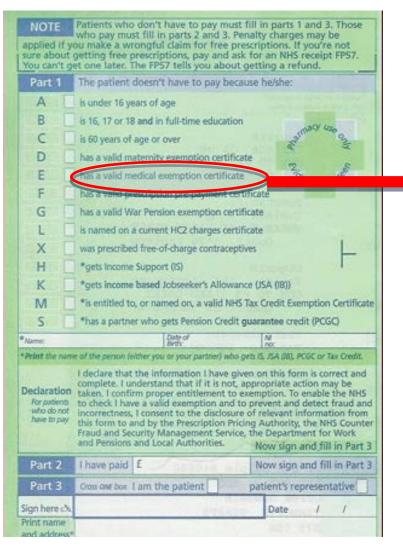
The same item e.g. drug, strength and formulation

Local and hospital pharmacies

Who is exempt?

have a specified medical condition and have a valid medical exemption certificate (MedEx)

Medical exemptions



- Permanent fistula (colostomy, ileostomy, laryngostomy) which requires continuous appliances
- Diabetes inspidus
- Diabetes mellitus
 - Hypoparathyroidism
- Myasthenia gravis
- Myoedema (hypothyroidism)
- Epilepsy requiring continuous therapy
- Continuing physical disability which means person cannot go out without help.

 (Temporary disabilities are not included if they last several months)
- Cancer (recently included)

What about other chronic conditions requiring regular medications?

Prepayment cards

Prescription Prepayment Certificates (PPC)



- ✓ 3 months: £29.10 (saves £ if you require 4 items or more in 3 months)
- ✓ 12 months: £104.00 (saves £ if you require 12 or more items per year)
- Available from community pharmacies, GP surgeries, online and by phone
- 12 month PPC 10 monthly direct debit instalment payments

Over the counter medication (OTC)

No prescription needed

Pharmacy only (P)

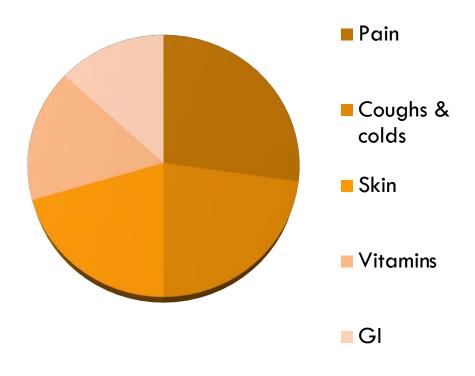
Must be sold under the supervision of a pharmacist

General Sales List (GSL)

No pharmacist supervision needed
Indication of use and pack size tend to be restricted



OTC Sales 2016



Over The Counter (OTC) medication

Pain Relief - 6m

Topical

Oral

Coughs, colds and sore throats - 5m

Liquids

Decongestants

Skin - 4.5m

Infections

Dry skin conditions

Vitamins, minerals and antitiredness -

3.6m

Iron levels

Absorption

Gastrointestinal - 2.9m

Indigestion remedies

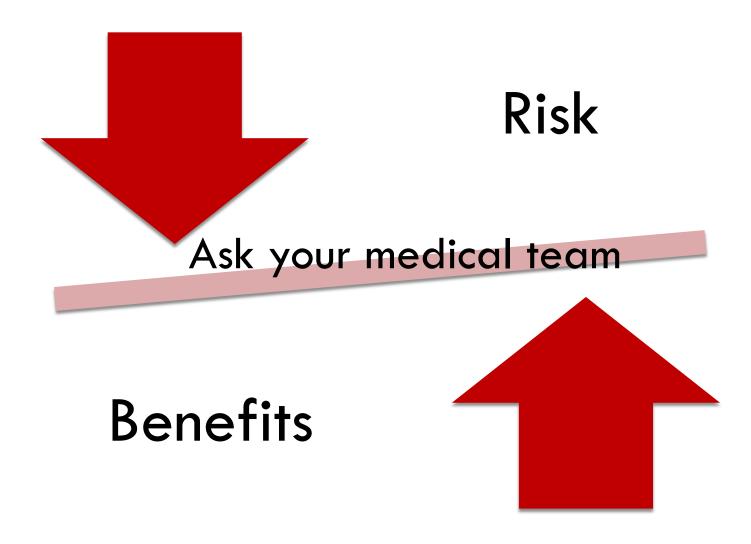
Laxatives

Diarrhoea treatments



Can cause ulceration in the pouch with potential bleeding

Pregnancy and Breastfeeding



Safety data: Pregnancy and Breastfeeding

- No clinical trials (ethical issues)
- Animal data
 - Sometimes hard to apply to human models
 - Many factors to be taken into consideration
- Use general and basic pharmacology principals
- Look at your condition and prognosis
- Help you make the right choice

Where to find information

- Patient Information Leaflets (PILs)
 - Found inside the medicine box

Doctors, Nurses and Pharmacists

□ On line – NHS sites

Charities

Thank you for listening

