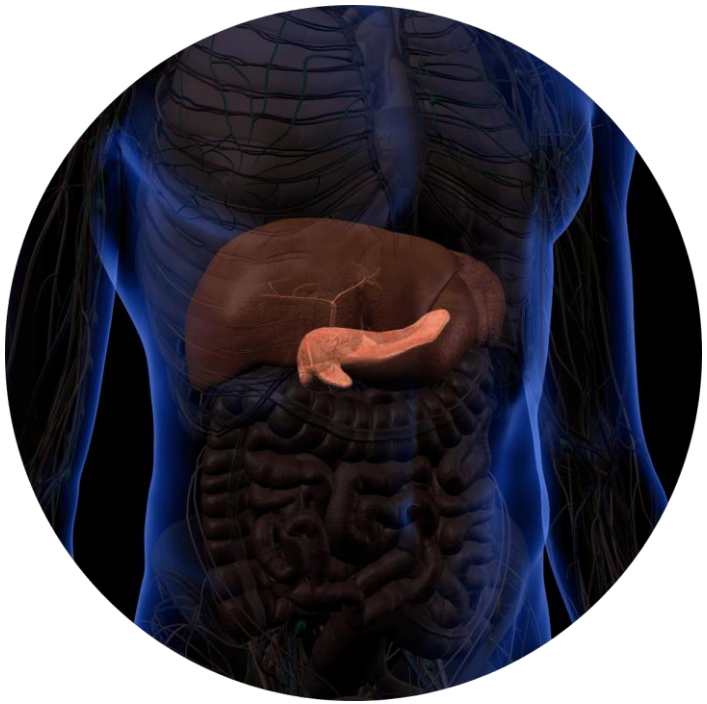
Nutritional Management of Pancreatic Cancer



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Belfast Health and Social Care Trust
caring supporting improving together

Working together · Excellence · Openness & Honesty · Compassion

Learning outcome:

- Improved knowledge and understanding of the nutritional management of pancreatic cancer including pancreatic exocrine insufficiency (PEI)

Pancreatic Cancer UK new campaign

Faster- should be diagnosed within 21 days of being sent for test and start treatment within 21 days of receiving a diagnosis

Fairer- everyone should get the best support regardless of demographics and chance of survival

Funded- government must provide funding to make changes possible (Pancreatic Cancer UK, 2023)

80% of individuals present with weight loss at diagnosis

Contributing factor is pancreatic exocrine insufficiency

Only 50% of individuals diagnosed with pancreatic cancer had been prescribed PERT

Specialist dietetic support and access to PERT are essential

Question 1:

Do you have any experience with patients who have been diagnosed with pancreatic cancer?

YES

SOME

NONE

Question 2:

How would you rate your understanding of PERT on a scale of 1-10?

1-5

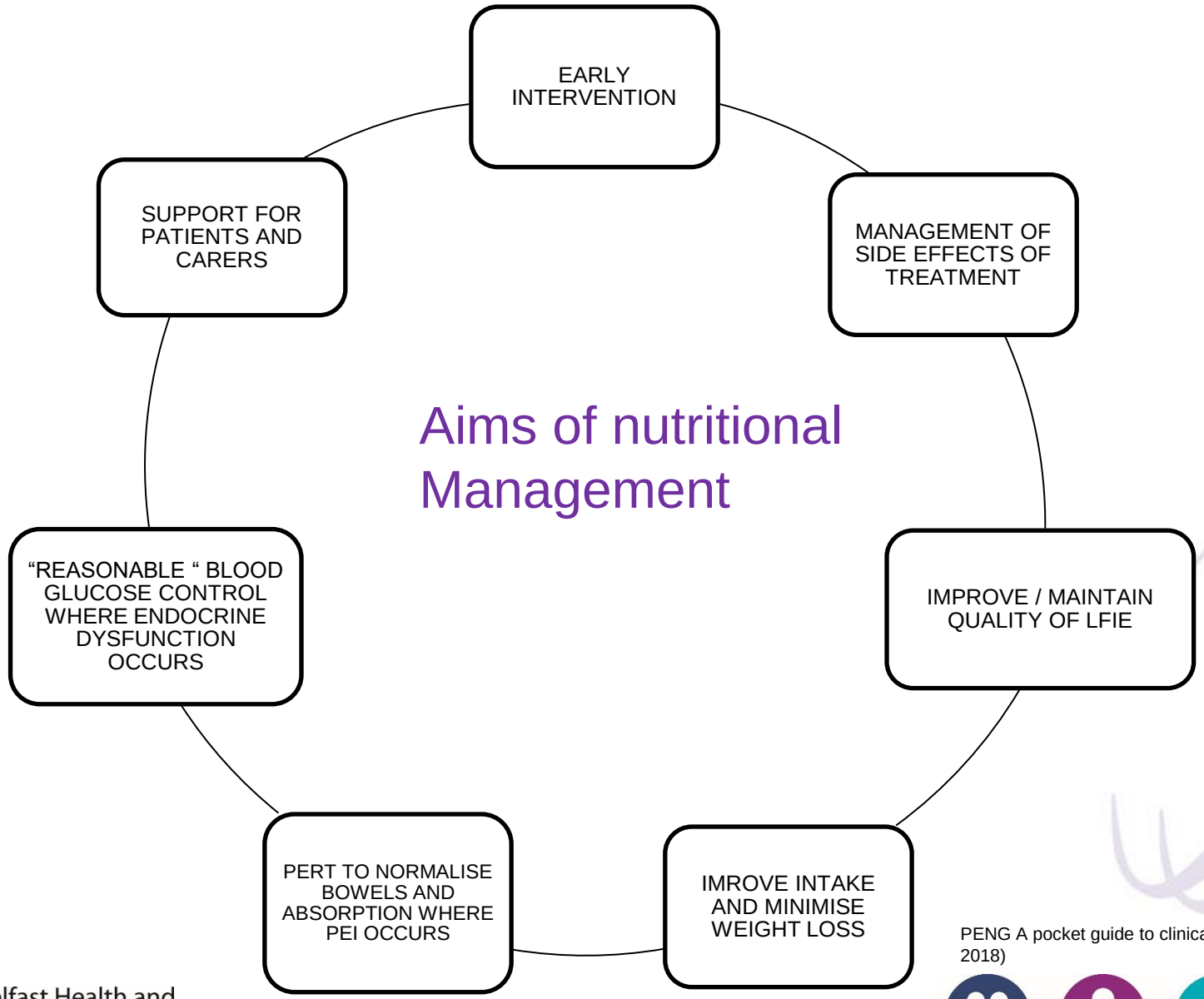
5-10

Nil understanding

Malnutrition in pancreatic cancer

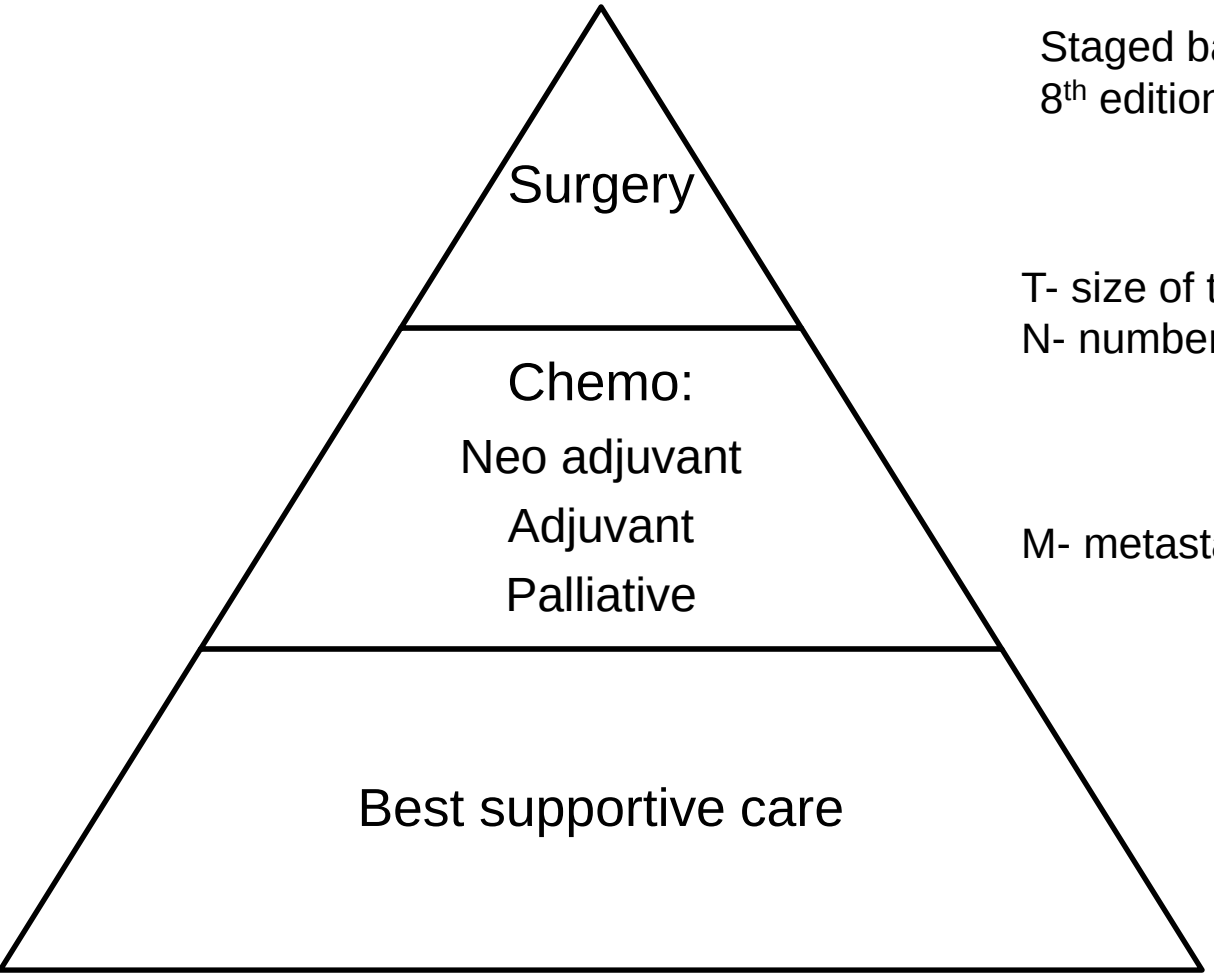
- 70-80% patients with pancreatic cancer are malnourished or cachexic which can lead to increased rates of mortality (Basile, 2019)
- Cachexia can result in reduced quality of life, overall survival, muscle mass and tolerance to treatment (NICE, 2018)
- Important to focus on high energy high protein diet, supplement drinks if tolerated and little and often approach. Consideration of enteral and parenteral nutrition when necessary

Aims of nutritional Management



PENG A pocket guide to clinical nutrition, 2018)

Treatment and management of pancreatic cancer & staging



Staged based on TNM module
8th edition 2018 revised

T- size of tumour
N- number of nodes
- N0- 0 metastatic lymph nodes
- N1-1-3 metastatic lymph notes
- N2-4 or more metastatic lymph nodes

M- metastatic sites

Type 3C diabetes

- Can occur due to exocrine insufficiency due to disease of the pancreas e.g pancreatic cancer
- It is important to be aware that this can occur pre or post surgery/ diagnosis
- Important to have diabetes nurses involved and raise with team
- Diabetes advice and education should be provided for these patients
- Referred to diabetes dietitian if necessary

What is Pancreatic exocrine insufficiency

The pancreas has an essential role in the digestion, absorption, and metabolism of carbohydrates, fats, and proteins.

Pancreas produces >30 enzymes but main 3 enzymes

Lipase required to breakdown fats (specific enzymes have varied amounts of lipase, e.g 25,000, 10,000)

Protease required to breakdown protein

Amylase required to breakdown carbohydrates

Damage to the cells producing pancreatic enzymes leads to exocrine pancreatic insufficiency, which is a serious problem leading to malnutrition and complications

It is important to encourage patients that they can continue to follow a normal diet and do not need to restrict their fat intake

When should you start PERT

- Any patient who has been diagnosed with unresectable pancreatic cancer should be commenced on PERT (NICE, 2018)

- Patient who have had diagnosis of head of pancreas cancer
- Total pancreatectomy
- Pre and post surgery for head of pancreas cancer (Phillips et al 2021)

How to take PERT

- Take capsules whole with water or other cold drink- taking with hot food/drinks can denature enzymes
- Can consume with room temperature drink if on chemo regimen containing oxaliplatin
- If swallowing difficulties- enzymes can be opened and taken with non-acidic food e.g fruit puree, banana, jam etc
- Rinse mouth thoroughly if opening capsules
- Take immediately before and during meal or snack- can stagger throughout meal or take all before
- Ensure enough fluids as high strength PEI replacement
- Store in cool dry place out of sunlight
- Ensure to carry in case, DO NOT place in pocket as enzymes can denature and will not work effectively
- Advise on porcine content of enzymes

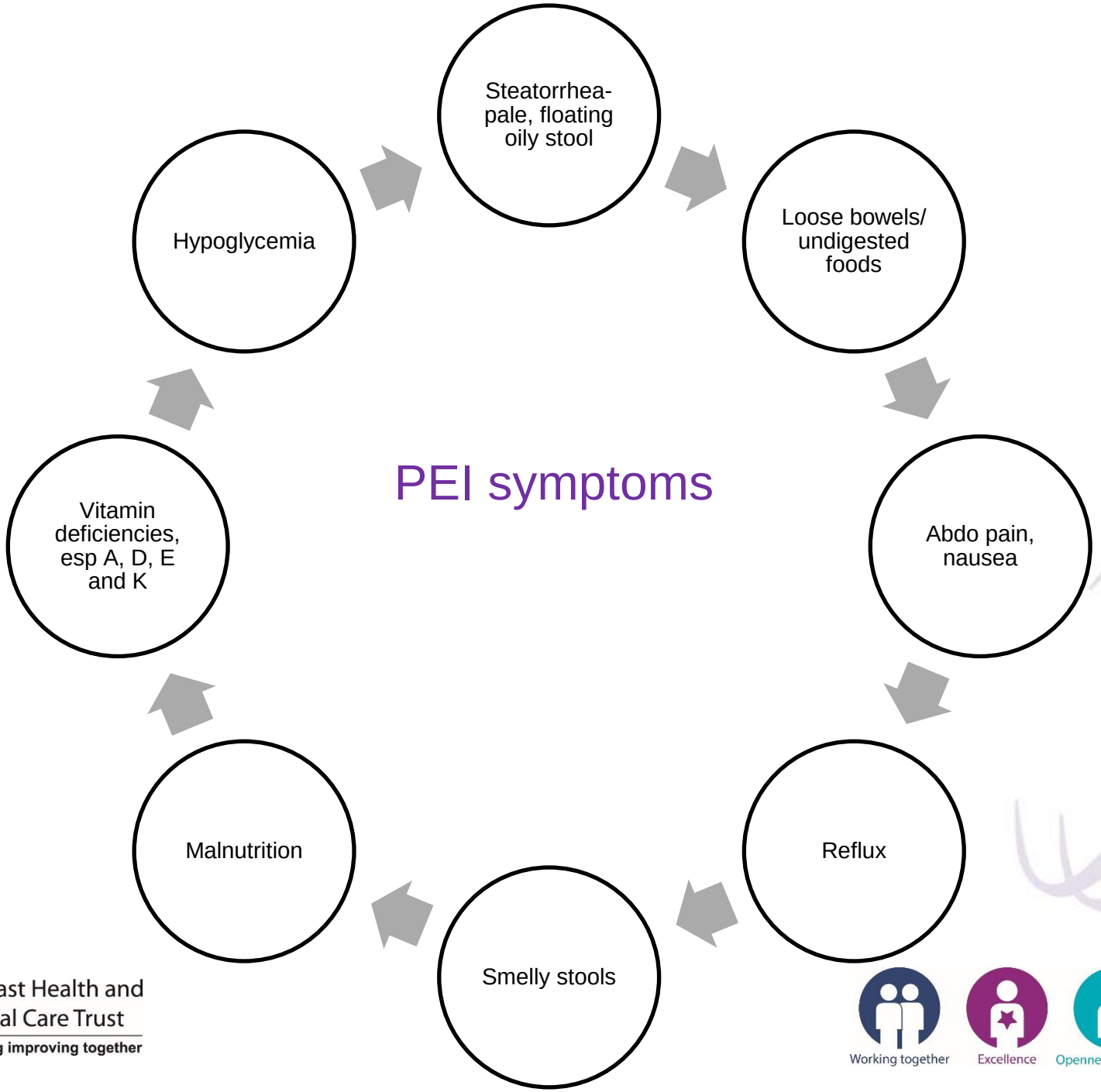
Foods which require more PERT

- Fried foods e.g. cooked in frying pan
- Fried meats
- Puddings
- Oily dressings
- Chocolate drinks unless low fat style
- Crisps or nuts
- Takeaways

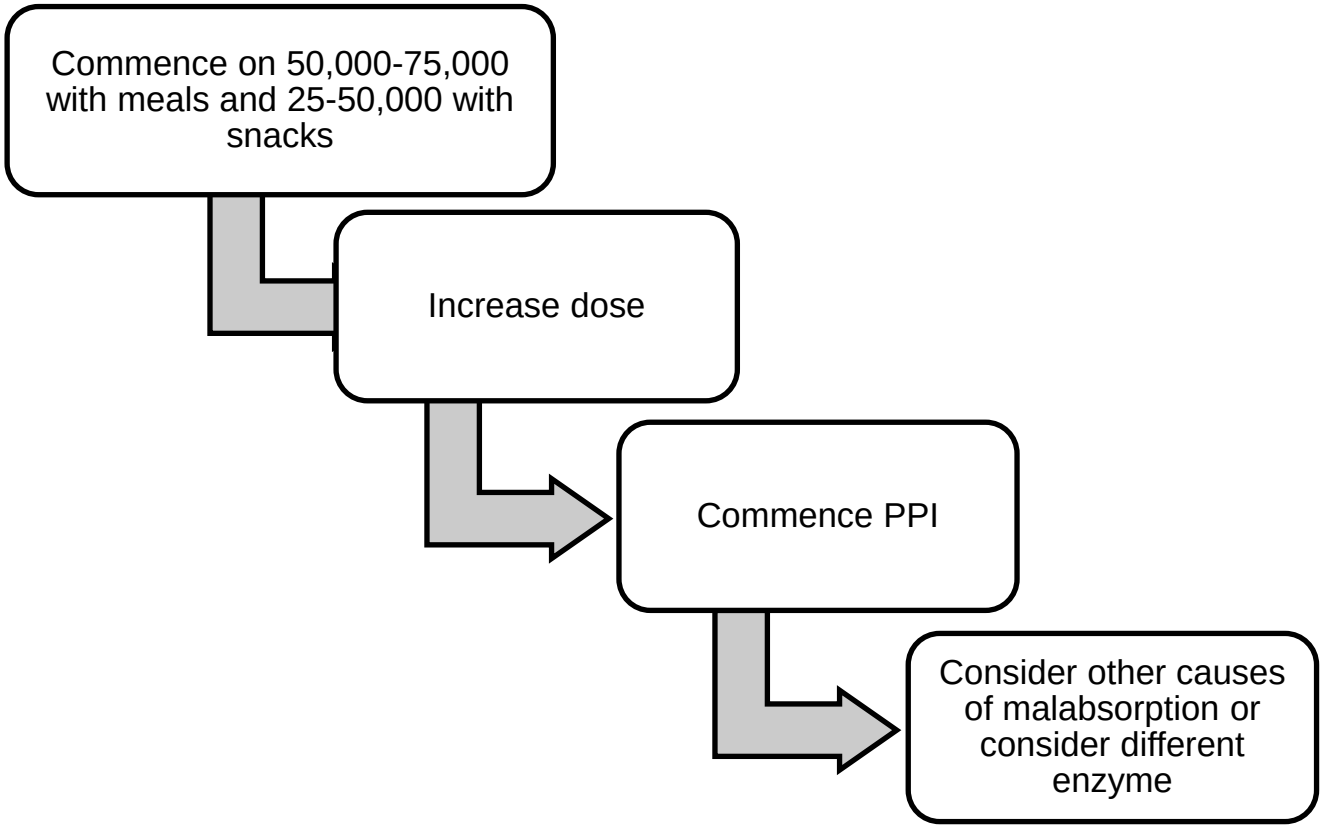
Foods which do not need PERT

- Jelly
- Fresh or tinned fruit
- Sweets e.g wine gums, boiled sweets, mints
- Fizzy drinks
- Squash
- Tea and coffee with dash of milk
- Glucose

PEI symptoms



How to monitor Enzymes



Am I taking enough PERT?

Should no longer have smelly offensive fatty stools
Bowels should return to normal

Should not have pain when eating

Might gain some weight

As appetite improves remember to increase dose

Still have signs of malabsorption; have you considered?

Fat soluble vitamin screen
Bile acid malabsorption
Coeliac screen
stool sample
PPI

Question 3:

What would you not need creon with?

1. Banana and toast with butter
2. Tea with small dash of milk
3. Fortisip compact protein
4. 125g fruit yogurt with seeds

Pancreatic Enzymes:

Creon 10,000 (remember may need more capsules due to lower dose)

Creon 25,000 (highest strength enzymes)

Nutrizym 22,000 (may need to increase dose)

Pancrex v powder not licensed for over 2g via tube feed

Case study 1

83year old lady, new diagnosis of pancreatic cancer and type 3 diabetes

BMI 21kg/m2

Poor appetite eating <1000kcal <30g protein including x1 fortisip compact protein daily

Some nausea and reflux

Blood sugars raised, on metformin and input from diabetes team

Bowels normal, on creon 25,000 x3 with meals and x2 with snacks.

What do you prioritise in this case?

Diabetes or poor appetite?

Plan :

Has the patient been referred to diabetes team

Provide education on high energy/ protein diabetic diet

Continue with creon

Encourage little and often as able

Priority is eating and drinking due to ++ poor appetite

Advise on hyperglycaemia risk and raise with appropriate team

Consider increasing supplement drinks if patient can tolerate to build up oral intake

? Take as shot style but ensure that x1 creon is taken with each 40ml shot of supplement to aid absorption

Monitor bowels and signs of malabsorption on review due to increase in kcal and protein intake

Consider if on PPI and anti sickness tablets

Case study 2:

70year old male, newly diagnosed with pancreatic cancer

BMI 17kg/m2 struggling to put on weight. Has been taking supplement drinks but struggles with abdominal pain after eating and taking supplements.

Not on pancreatic enzymes

Yellow loose stools, fatty consistency and cramps/ bloating

Fatigued and not keen to eat

Plan:

Commence on pancreatic enzymes and arrange script

Starting dose 2-3 with meals and 1-2 with snacks

Provide education on enzymes

Continue with supplement drinks but ensure taking enzymes with each drink approx. 2 enzymes with each supplement

High energy/ high protein diet advice as tolerated

Little and often with regular snacks as able

Case study 3 :

New dietetic referral for an 85year old male, pancreatic cancer diagnosis
On creon since diagnosis but having issues with swallowing creon 25,000.

BMI 18kg/m2, has lost weight over last few weeks approx. 3kg.
Reported continues to take creon but struggling with them at present

Ongoing nausea, pain on eating, wind and pale stools
Reported taking x3 creon with meals and x2 with snacks

Keen to gain weight and reduce symptoms above

Plan

Consider opening creon capsules with all food, ensure and advise to rinse mouth after taking capsules

Take with non-acidic product yogurt to ensure enzymes do not denature prior to getting to stomach

Consider use of supplements commence fortisip compact protein x2 daily and ensure to take x2 creon with each supplement drink

Monitor bowels and weight

Some top tips

Ensure to work closely with MDT including CNS

Plan and review in timely manner

Review creon administration at each review

Ask if unsure and can reach out of BCH

Always ask about bowels

Make sure patients are taking enzymes with supplement drinks

Spend time with patients to provide good education PERT can be overwhelming

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