



Note 1- Switching advice, depending on what stock is available.

Further information, including a position statement with further information on dose equivalence (from which this table is taken) can be found in the [MSAN](#).

Creon* 25,000 Dose	Equivalent in Nutrizym* 22	Equivalent in Creon* 10,000	Equivalent in Pancrex* 340mg (8,000 units lipase)	Equivalent in Pancrex* 125mg (2,950 units lipase)	Equivalent in Creon* Micro*	Pancrex* V powder*
1 x Creon 25,000	1 x Nutrizym 22	3 x Creon 10,000	3 x Pancrex 8,000	8 x Pancrex 2,950	5 scoops Creon Micro	½ x 2.5ml spoon
2 x Creon 25,000	2 x Nutrizym 22	5 x Creon 10,000	6 x Pancrex 8,000	16 x Pancrex 2,950	10 scoops Creon Micro	1 x 2.5ml spoon
3 x Creon 25,000	3 x Nutrizym 22	8 x Creon 10,000	9 x Pancrex 8,000	24 x Pancrex 2,950	15 scoops Creon Micro	1½ x 2.5ml spoon
4 x Creon 25,000	4 x Nutrizym 22	10 x Creon 10,000	12 x Pancrex 8,000	32 x Pancrex 2,950	20 scoops Creon Micro	2 x 2.5ml spoon
5 x Creon 25,000	5 x Nutrizym 22	13 x Creon 10,000	15 x Pancrex 8,000	40 x Pancrex 2,950	25 scoops Creon Micro	2 ½ x 2.5ml spoon
6 x Creon 25,000	6 x Nutrizym 22	15 x Creon 10,000	18 x Pancrex 8,000	48 x Pancrex 2,950	30 scoops Creon Micro	3 x 2.5ml spoon

**Mix with a mildly acidic puree (fruit yoghurt / apple sauce), rinse mouth with water and ensure thorough mouth care as at risk of ulceration if powder / granules get stuck in the gums / under dentures*

Note 2 – ULM WHOLESALERS (SEE [MSAN](#) FOR COMPLETE LIST and SPC's of products)

Wholesaler	Product	Pack Size	Price	Lead time	Letter of Clinic Need (LOCN)	Further info
Alium	Pancrease® 4200 UN delayed release caps	100	£196	1-2 weeks from receipt of PO	No LOCN required – waiting on MHRA approval	declaration
Smartway	Creon 25000 caps	100	£165	No firm lead time. 1-3 weeks?	No LOCN required – waiting on MHRA approval	
Clinigen	Creon 25000 caps	100	£109	Next day from PO.	No LOCN required.	lauren.mccoll@clinigengroup.com – email address to order.
Ethigen	Creon 25000 caps	100	£165	Next day from PO.	No LOCN required	
Target	Pangrol 10000 EC caps	200	£110	Next day from PO	No LOCN required	
	Pangrol 25000 EC caps	200	£130			
Mawdsleys	Not available					
Durbin	Not available					

Note 3 – Hospital Contact Details

If patient has Cystic Fibrosis, pancreatic cancer or has undergone a Whipple procedure.

Advise patient to contact their Hospital Team

CF patients unable to source Creon®

Paediatric CF at QEUH (under 16y)

- Dieticians: julie.crocker@ggc.scot.nhs.uk
- CF nurses: paediatriccfnurses@ggc.scot.nhs.uk

Adult CF at QEUH (16y and over)

- CF nurses: cysticfibrosisnursesadult@ggc.scot.nhs.uk
- Pharmacist: iona.paterson@ggc.scot.nhs.uk
- Dietitians: cf.dietitiansqeuah@ggc.scot.nhs.uk

Note 4 – Dietetic Advice

When supplies of PERT are limited for patients in NHSGGC follow dietary advice below (excluding those with Cystic Fibrosis, pancreatic cancer and those that have undergone a Total Pancreatectomy– they should contact their CNS, Dietitian or medical/ surgical team)

- Patients should be educated on correct dose, timing, administration and storage of PERT to reduce wastage
- Patients should be encouraged to prioritise PERT with meals. They could also try to limit takeaways and very fatty meals. They can reduce dose with snacks and then stop with snacks completely to prioritise meal doses. At that point they should change snacks to lower fat alternatives. (See table 3 on the next page- taken from position statement)
- Patients if not already taking any, they should be encouraged to purchase a multivitamin which contains the fat soluble vitamins A,D, E and K. For example, Holland and Barret ABC plus or Centrum (many different types including the chewable ones) or a supermarket's own brand A-Z.
- Patients on insulin or oral hypoglycaemic agents that can cause hypoglycaemia may experience worsening control and be more susceptible to hypoglycaemia. Regular blood glucose monitoring is helpful, and patients on continuous glucose monitoring should be encouraged to ensure their hypoglycaemic alarm is set. As they are taking less enzymes, they are likely to absorb less carbohydrate from their food therefore the patient may require to reduce the amount of insulin taken accordingly.
- Additional monitoring may be needed for patients on anti-coagulation as Vitamin K is a fat-soluble vitamin and uptake may be impaired with inadequate PERT.
- Ensure patient is on a PPI/H2 Antagonist where appropriate (this helps the enzymes to be more efficient)
- If patients are struggling with malabsorption symptoms and where infective, inflammatory or obstructive cause has been ruled out consider prescribing/taking some loperamide/ Imodium for before main meals. Or try to encourage patient to reduce the amount of fat in your meals by half a portion for high fat foods. If the patient does not have diabetes they could increase the use of carbohydrate rich foods and drinks to reduce the energy gap in their diet.
- If the patient is consistently losing weight (more than 2kg a month or are already underweight and losing more than 1kg per month) they should be directed back to their GP for an urgent referral to the local dietitian if not already under their care. It is the Dietitian who will decide whether Oral Nutritional Supplements (ONS) are required and which are the most appropriate and at what quantity.
- Patients who already have a duty of care with a Dietitian should make contact with that team. It is the Dietitian who will decide whether Oral Nutritional Supplements (ONS) are required, and which are the most appropriate and at what quantity.

Table 3: High fat foods and their lower fat alternatives

	Reduce your portion sizes of these	Have these instead
Fats and oils	Butter, lard, Ghee, Margarine, cooking oils	Small portions of low-fat spreads Use spray on cooking oils if needed
Dairy products	Full fat milk / yoghurt Cream Crème Fraiche Cheese	Semi-skimmed or skimmed milk. Low fat yoghurts Use small amounts of grated cheese instead of slices of cheese – choose stronger cheeses to maximise taste. To increase your protein intake make skimmed milk powder up using skimmed milk and use in place of milk throughout the day
Meat and Fish	Fried foods or foods cooked in batter Skins / visible fat on meat Tinned fish, tinned in oil	Meat and fish cooked without added oil Tinned fish, tinned in spring water / brine
Plant based protein sources	Nut butters	Pulses (e.g. lentils, chickpeas, beans (note portion sizes in table 4) Quorn / Tofu – up to 100g
Fruit & vegetables	No restrictions for low fat, see Table 4 for fibre suggestions	
Carbohydrate based foods	Croissants, pastries Chips / Fried Roast potatoes	Bread, Breakfast cereals Potatoes, rice, pasta, cooked without added fat
Sauces / Condiments	Cheese based sauces Creamy sauces (bearnaise, hollandaise etc.,) Large portions of mayonnaise	Tomato based sauces, gravy, mustard, tomato ketchup, soy sauce, mint jelly, vinegar or low-fat salad dressings