DIAGNOSING AND MANAGING EXOCRINE PANCREATIC INSUFFICIENCY:

The Role of the NP

Exocrine pancreatic insufficiency (EPI) is a serious condition caused by reduced capacity of the pancreas to produce the pancreatic enzymes that are necessary for normal digestion.

Patients with EPI are at increased risk for several complications, including:

- Malnutrition and fat-soluble vitamin deficiency.
- Loss of bone mass.
- Growth deficiency (children).
- Immune deficiency.
- Cardiovascular events.

Prompt diagnosis and treatment are key to reducing the risk of EPI-related complications and improving patient quality of life.

OVERVIEW OF EPI CARE: FROM RECOGNITION TO MANAGEMENT

Who should be evaluated for EPI?	**Signs and symptoms:** • Steatorrhea. • Diarrhea. • Bloating. • Weight loss. Note: May also be asymptomatic **High-risk conditions:** • Chronic pancreatitis. • Acute pancreatitis (especially recurrent acute pancreatitis). • Cystic fibrosis. • Pancreatic ductal adenocarcinoma. • Prior pancreatic surgery. **Moderate-risk conditions:** • Duodenal diseases. • Long-standing diabetes. • Hypersecretory states.
How should EPI be diagnosed?	**Fecal elastase testing (preferred for diagnosis of EPI)** • Requires solid or semi-solid stool sample. • May be performed during pancreatic enzyme treatment. **Cross-sectional imaging** (for assessment of underlying pancreatic disease)

What are the goals of management?	• Symptom control. • Quality-of-life improvement. • Reduction in risk of complications and sequelae.
How should EPI be managed?	• Optimized pancreatic enzyme replacement therapy. • Fat-soluble vitamin supplementation. • Lifestyle modifications (high-protein foods, avoidance of alcohol, smoking cessation or avoidance and dietary consultation if available). • Preventive care (annual assessment of micronutrient status, glucose, and A1C; DEXA scan every 2 years).

Adapted from Whitcomb DC et al. Gastroenterology. 2023;165(5):1292-1301.

A1C, glycosylated hemoglobin; EPI, exocrine pancreatic insufficiency; DEXA, dual x-ray absorptiometry

PANCREATIC ENZYME REPLACEMENT THERAPIES

Several pancreatic enzyme replacement therapies are FDA approved. These pancreatic enzymes contain porcine-derived lipases, proteases and amylases in capsules for oral administration.

Brand name for pancrelipase product	Formulation	Dose units, USP U		
		Lipase	Protease	Amylase
Creon	Enteric-coated spheres	3000	9500	15,000
		6000	19,000	30,000
		12,000	38,000	60,000
		24,000	76,000	120,000
		36,000	114,000	180,000
Pancreaze	Enteric-coated microtablets	2600	8800	15,200
		4200	14,200	24,600
		10,500	35,500	61,500
		16,800	56,800	98,400
		21,000	54,700	83,900
		37,000	97,300	149,900
Pertzye	Bicarbonate-buffered enteric-coated microspheres	4000	14,375	15,125
		8000	28,750	30,250
		16,000	57,500	60,500
		24,000	86,250	90,750
Viokace	Non–enteric-coated tablet; must be coadministered with PPI	10,440	39,150	39,150
		20,880	78,300	78,300
Zenpep	Enteric-coated beads	3000	10,000	14,000
		5000	17,000	24,000
		10,000	32,000	42,000
		15,000	47,000	63,000
		20,000	63,000	84,000
		25,000	79,000	105,000
		20,000	63,000	84,000
		25,000	79,000	105,000

PPI, proton pump inhibitor

PANCREATIC ENZYME REPLACEMENT THERAPY PRESCRIBING CHECKLIST

- ☑ Review patient insurance coverage and select covered pancreatic enzyme replacement therapy.
- ☑ Obtain accurate weight.
- ☑ Ensure correct dosing based on patient-reported eating patterns.
- ☑ Prescribe with meals, snacks and milk or milk-containing drinks.
- ☑ Counsel patient on proper administration and dosing.
- ☑ Assess for cost and adherence barriers.
- ☑ Connect patients, if necessary, with a social worker, community resources and/or patient assistance programs to ensure treatment access.

MORE INFORMATION

	For more information about EPI, view the American Gastroenterological Association's latest Clinical Practice Update.

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