

# Office Perspectives

Using More Than Gut Instinct to Diagnose  
and Treat Exocrine Pancreatic Insufficiency

# Differential Diagnosis

- Pancreatic and related diseases
  - Acute/chronic pancreatitis
  - Celiac disease
  - Diabetes
- Genetic diseases
  - Cystic fibrosis
  - Shwachman–Diamond Syndrome
- Cancer-related
  - Intraductal papillary mucinous neoplasm
- Surgery
  - Gastric bypass
  - Pancreatectomy

# Signs and Symptoms

- Steatorrhea (vs diarrhea)
  - Thick, oily, greasy stool
  - Odorous
  - Difficult to flush
- Weight loss
- Abdominal cramping, distension
  - Flatulence
- Malnutrition
- Advanced EPI
  - Coagulopathy or bleeding disorder
  - Edema

# Management Considerations: Pancreatic Enzymes

- During a typical day and a typical meal, must understand quantity of pancreatic enzymes patient's pancreas actually produces
  - DiMagno et al: Maintain ability to digest fat through intestinal compensation even when ~90% of pancreatic function lost
- Normal adult produces ~1 million units of lipase/day
  - To determine what to prescribe to replace, need to determine how much pancreatic function remains
- Ideal PERT dose: 72,000 to >100,000 lipase units/normal adult meal
- Recognize meal not sent into GI tract as "bolus" but continuously requiring attention to timing of PERT

# Management Considerations: Optimizing Nutrition

- Does patient have basic understanding of EPI in terms of
  - How pancreas responds to food
  - How pancreas responds to fat
  - The role of lipase in digestion
- Techniques to combat malabsorption
  - Eat small, frequent meals
  - Spread meals throughout day
  - Limit alcohol intake
  - Stop smoking
  - Supplement vitamins as needed

# Barriers to Compliance

- Cost
- Lack of education
  - How PERT should be used
  - Meals and food intake
- Dosing
- Lack of motivation
- Physician/nurse interaction
  - Need to create atmosphere for open communication
- Long-term therapy requirement

# Follow-up

- Ensure patients are scheduled for appropriate follow-up appointments
- Ensure patients understand office available if anything develops between appointments
  - “Door always open”
- Provide resources for specific needs (eg, dietitian)
- Help patients respond if changes occur with insurance or medication cost
  - Access to industry financial assistance programs