Digestive Disorders:
Lower Gastrointestinal Tract

Presented by:
KEPRO SW PA Health Care Quality Unit
(KEPRO HCQU)

Disclaimer

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Certificates for training hours will only be awarded to those who attend a training in its entirety. Attendees are responsible for submitting paperwork to their respective agencies.
Objectives

- Recognize signs and symptoms of common lower GI disorders
- Identify non-verbal indicators of pain
- Name supportive measures for individuals with lower GI disorders
Gastro-intestinal Tract Components

• Upper GI tract
  • Mouth
  • Esophagus
  • Stomach

• Lower GI tract
  • Small intestine
  • Large intestine

Function Of The Lower GI Tract

• Digestion
• Elimination
Function And Structure Of Small Intestine

- Digestion and absorption
  - Chyme – digested food from the stomach
- Duodenum, jejunum, ileum

Large Intestine
Function and Structure of the Large Intestine

- Movement of intestinal contents
- Absorption
- Cecum
- Ascending colon, transverse colon, descending colon
- Rectum

Common Lower GI Tract Disorders

- Diverticular Disease
  - Diverticulosis
  - Diverticulitis
- Inflammatory Bowel Disease
  - Ulcerative Colitis
  - Crohn’s Disease
- Irritable Bowel Syndrome
- Viral Gastroenteritis
  - Norovirus
Disorders Of The Lower GI Tract

• Antibiotic-Associated Diarrhea and Colitis
  • Clostridium difficile (C. diff)

• Celiac Disease

• Hirschsprung’s Disease

• Appendicitis

Diverticular Disease

• Diverticulosis
• Diverticulitis
Diverticulitis

- Common symptoms
  - Pain
  - Change in Bowel Habits
  - Fever
  - Nausea and vomiting
  - Constipation
  - Diarrhea

- Less common symptoms
  - Bloating
  - Rectal Bleeding

- Nonverbal signs of pain
  - Refusal to eat
  - Withdrawal
  - Crying

Diverticular Disease Causes and Risk Factors

- Trapped fecal matter
- Reduced blood supply
- Age
- Inadequate fiber intake
- Lack of exercise
- Obesity
Diagnosing Diverticulitis

- Abdominal CT
- Ultrasound

Treatment Of Diverticulitis

- Depends on severity
- Antibiotics
- Pain relief
- Surgery
### Diverticulitis Prevention

- Eat fiber
- Drink fluids
- Don’t delay bowel urges
- Exercise regularly

### Inflammatory Bowel Disease (IBD)

- Ulcerative Colitis
- Crohn’s Disease
Ulcerative Colitis Symptoms

- Abdominal pain
- Abdominal sounds
- Diarrhea
- Rectal pain
- Weight loss
- Fever

Ulcerative Colitis Diagnosis And Screening

- Colonoscopy with biopsy
- American Cancer Society recommends screenings
  - 8 years after first diagnosis of severe disease or when a large part of intestine is involved
  - 12-15 years following a diagnosis where only the left side of the large intestine is involved
  - Follow-up examinations every 1-2 years
Ulcerative Colitis Treatment

• Diet
• Medications
• Surgery

Crohn’s Disease Symptoms

• Abdominal pain / cramping
• Diarrhea
• Fever
• Anemia
• Joint inflammation
• Weight loss
Crohn’s Disease Diagnosis

- Stool culture
- Barium enema / x-ray
- CT and ultrasound
- Colonoscopy
- Endoscopy
- MRI
- Laboratory Tests

Crohn’s Disease Treatment

- Diet
- Medication
- Surgery
### Irritable Bowel Syndrome

- Unknown cause
- Abdominal pain
- Diarrhea
- Constipation

### Irritable Bowel Syndrome (IBS) Diagnosis

- Symptom based
Irritable Bowel Syndrome
Treatment

• Diet
• Reduce stress
• Medications

Viral Gastroenteritis

• Inflammation
• Norovirus
Gastroenteritis Symptoms

• Nausea
• Vomiting
• Diarrhea
• Abdominal cramps

Gastroenteritis Transmission

• Contaminated food or liquids
• Undercooked shellfish
• Close contact with infected persons
• Seasonal
Gastroenteritis Treatment

• Prevent dehydration

Gastroenteritis Prevention

• Wash hands frequently
• Cook food thoroughly
• Bleach-based cleaner
• Launder soiled linens
Antibiotic-Associated Diarrhea And Colitis

- Clostridium difficile

C Diff Signs and Symptoms

- Mild to moderate C. Diff
- Severe C. Diff
C. Diff Transmission

- Fecal-oral route
- Spore forming bacteria

C. Diff treatment

- Antibiotics
  - Flagyl
  - Vancomycin
- Probiotics
  - Florastor
- Drink fluids
C. Diff Prevention

- Hand washing
- Thorough cleaning
- Prudent use of antibiotics

Celiac Disease
Celiac Disease

• Immune system reaction to gluten
• Small intestine damage
• Autoimmune disease

Celiac Disease Signs And Symptoms

• Gastrointestinal symptoms
  • Intermittent diarrhea
  • Abdominal pain, bloating
  • Decreased appetite, weight loss
  • Constipation
  • Lactose intolerance
  • Stools that float

• Non-gastrointestinal symptoms
  • Pale mouth sores
  • Painful skin rashes
  • Missed menstrual periods
  • Anemia
  • Joint pain, muscle cramps
  • Dental and bone disorders
  • Neuropathy
Celiac Disease Causes And Diagnosis

• Cause unknown
• Blood tests
• Biopsy

Flattening of villi in Celiac Disease

Celiac Disease Treatment And Prevention

• Gluten-free diet
• Vitamin and mineral supplements
• Dietician referral
Hirschsprung’s Disease

Normal colon depicting nerve cells

Colon with Hirschsprung’s disease depicting missing nerve cells

Hirschsprung’s Disease

- Affects large intestine
- Present at birth
- Missing colonic nerve cells
Hirschsprung’s Disease Signs and Symptoms

• Newborn symptoms
  • Failure to pass stool
  • Infrequent, explosive stools
  • Jaundice
  • Poor feeding

• Adult symptoms
  • Chronic constipation
  • Anemia

Hirschsprung’s Disease Causes

• Unknown cause

• May be genetic
Hirschsprung’s Disease  
Diagnosis And Treatment

- Abdominal x-ray
- Anal manometry
- Barium enema
- Rectal biopsy
- Pull-through procedure

Appendicitis

- Finger-shaped protrusion
- Unknown function
Appendicitis Signs And Symptoms

- Abdominal pain
- Rebound tenderness
- Nausea and vomiting
- Loss of appetite
- Low-grade fever
- Constipation
- Inability to pass gas
- Diarrhea
- Abdominal swelling

Appendicitis Causes

- Obstruction
- Infection
Appendicitis Diagnosis

- Abdominal exam
- Urine test
- Blood test
- Imaging tests

Appendicitis Treatment And Prevention

- Appendectomy
- Open surgery
- Laparoscopic surgery
- High fiber diet
Caregivers Make A Difference

- Infection control
- Dietary recommendations
- Prompt reporting of behavioral changes

Suggested Trainings

- Digestive Disorders: Upper GI
- Bowel Management
- Behavioral Manifestations Of Pain
References

• Viral Gastroenteritis, National Center for Immunization and Respiratory Disease, Division of Viral Diseases, Centers For Disease Control, (CDC) Retrieved on November 23, 2010 from http://www.cdc.gov/ncidod/dvrd/revb/gastro/faq.htm
• Norovirus Q&A, National Center for Immunization and Respiratory Disease, Division of Viral Diseases, Centers For Disease Control, (CDC). Retrieved on November 2, 2010 from http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus-qa.htm

References

References


References

To register for future trainings or for more information on this or any other physical or behavioral health topic, please visit

hcqu.kepro.com

Test and Evaluation

Please take a few moments to complete the test and evaluation forms for this training.

Thank you!
The Top Twenty Fiber Foods

1. Dried beans, peas, and other legumes
   This includes baked beans, kidney beans, split peas, dried limas, garbanzos, pinto beans and black beans.
2. Bran cereals
   Topping this list are Bran Buds and All-Bran, but 100% Bran, Raisin Bran, Most and Cracklin’ Bran are also excellent sources.
3. Fresh or frozen lima beans, both Ford hook and baby limas
4. Fresh or frozen green peas
5. Dried fruit, topped by figs, apricots and dates
6. Raspberries, blackberries and strawberries
7. Sweet corn, whether on the cob or cut off in kernels
8. Whole-wheat and other whole-grain cereal products.
   Rye, oats, buckwheat and stone-ground cornmeal are all high in fiber. Bread, pastas, pizzas, pancakes and muffins made with whole-grain flours.
9. Broccoli—very high in fiber!
10. Baked potato with the skin
   (The skin when crisp is the best part for fiber.) Mashed and boiled potatoes are good, too—but not French fries, which contain a high percentage of fat.
11. Green snap beans, pole beans, and broad beans
   (These are packaged frozen as Italian beans, in Europe they are known as haricot or French beans.)
12. Plums, pears, and apples
   The skin is edible, and are all high in pectin.
13. Raisins and prunes
   Not as high on the list as other dried fruits (see #5) but very valuable.
14. Greens
   Including spinach, beet greens, kale, collards, Swiss chard and turnip greens.
15. Nuts
   Especially almonds, Brazil nuts, peanuts, and walnuts (Consume these sparingly, because of their high fat content.).
16. Cherries
17. Bananas
18. Carrots
19. Coconut
   (dried or fresh—but both are high in fat content).
20. Brussels sprouts

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