Case Study

Clostridium Difficile

This ACE (Acute Care for the Elderly) Card™ on *Clostridium difficile* for elderly adults was developed by Dr. Michael Malone and Dr. Soryal Soryal at Aurora Health Care in Milwaukee, WI. These geriatric care reminder cards will be published in *ALC* as resources to help clinicians manage common conditions that plague elderly patients.

The complete series of cards can be ordered from Dr. Malone at Michael.Malone.md@aurora.org.

AN 84-YEAR-OLD WOMAN returns to the assisted living (AL) facility after a hospitalization for pneumonia. Five days after returning from the hospital, she describes diarrhea with sweats and abdominal cramps. The question becomes what to do with regard to her diagnosis and treatment as well as her participation in group activities at the AL facility. After quickly reviewing the ACE card for assistance, one realizes that many of the hospital infection control measures can be initiated at the AL facility. ALC

ACE Cards ™
Clostridium difficile – Associated Diarrhea in Older Adults

Acute Care for Elders (ACE) Program
Aurora Health Care/
UW School of Medicine & Public Health

Background:
Antibiotic associated diarrhea became an established complication soon after antibiotics became available. In 1978, Clostridium difficile was found to be the associated pathogen in the majority of cases. Recently cases have been noted to be more frequent, more severe and more refractory to standard therapy.

Clindamycin, cephalosporins, and fluoroquinolones are the most common antibiotics associated with C. difficile diarrhea.

Risk Factors:
- Long hospital stay
- Advanced age
- Gastrointestinal surgical procedures
- Antibiotic therapy
- Gastric acid suppression
- Resident of a long-term care facility
- Nasogastric tube placement
- Gastrostomy tube placement

Clinical Presentation:
- Diarrhea
- Abdominal cramps or pain
- Fever
- Fecal leukocytosis/occult blood
- Malaise
- Nausea
- Anorexia
- Leukocytosis

Potential Complications:
- Ileus/toxic mega colon
- Leukemoid reaction
- Severe hypoalbuminemia
- Requirement for colectomy
- Functional decline
- Skin breakdown
- Shock
- Death

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Testing:
- Rapid immunoassay to detect C. difficile toxin A & B. 10-20% false negative rate.
- Repeat testing may be required.
- Stool should not be sent from patient without diarrhea.
- Consider stool culture to rule out other enteric pathogen.

Treatment:
- Stop antibiotic (if possible).
- Enteric isolation.
- Avoid antimotility agents.
- Careful hydration.
- First Line: Metronidazole 500 mg TID, or 250 mg QID x 10-14 days
- Alternative: Vancomycin 125 mg p.o. QID
- For relapse, first retreat with metronidazole.

Prevention:
- Early detection.
- Rapid treatment.
- Apply hospital infection control measures: isolation, contact precautions, soap and water for hand washing.

Take Home Points:
- Suspect the diagnosis of C. diff in a hospitalized senior who has an unexplained cause for leukocytosis and/or new onset diarrhea.
- Avoid empiric utilization of broad-spectrum antibiotics for diseases where there is no evidence of benefit.
- Consider C. difficile associated diarrhea in both inpatients and in community dwelling seniors.
- Relapse occurs more commonly in older adults, about in 12-24% of patients.

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References: Bartlett J, Narrative review: the new epidemic of clostridium difficile-associated enteric disease; Annals of Internal Medicine, Nov. 2006. NEJM 346:334-9, 2002

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