PDAs: Not just machine-like murmurs

Transition 2
AY 2008-09
Meditrek

• Easy to keep track of patients right after the encounter
• Access Meditrek via desktop, phone or pda device
• Can log on directly to www.meditrek.com in any wireless supported area with a pda, cell phone with browser, or smartphone
• Or can install client software and sync records/schedules from device to website.
• For more information about Meditrek, go to http://njms.umdnj.edu/tss/meditrek.cfm
Get an expansion card!

- 1.0GB should be good enough (~$20), but the more the better (Staples, Circuit City)
- Store all programs on expansion card, and keep backup on your computer
Some familiar faces

• InfoRetriever
  – Griffith’s 5 Minute Clinical Consult: nutshell synopsis of diseases, Si/Sx, Dx, Tx
  – InfoPoems: succinct summaries of journal articles to guide your practice
  – Cochrane Database: Cochrane group analyzes/reviews tons of data and draws objective conclusions
  – Clinical calculators/predictors
Some familiar faces

• InfoRetriever
Some familiar faces

- InfoRetriever
Some familiar faces

- InfoRetriever
- InfoPoems

**B-type natriuretic peptide a.**

**InfoPOEMs summary**

**B-type natriuretic peptide accurate for HF diagnosis**

**Clinical question**

How accurate is B-type natriuretic peptide in the diagnosis of congestive heart failure?
Some familiar faces

- InfoRetriever
- InfoPoems

**B-type natriuretic peptide a.**

**Study design**
Cross-sectional (LOE = 1b)

**Setting**
Emergency department

**Synopsis**
This was a pretty well-designed study of the accuracy of B-type natriuretic peptide (BNP), a
Some familiar faces

• InfoRetriever
  – InfoPoems

B-type natriuretic peptide a.

**Bottom-line**
Only 2% of patients in this fairly high-risk group with dyspnea and suspected CHF actually had CHF if their BNP level was less than 80 pg/ml. This test has the potential to greatly improve the diagnosis of CHF with left ventricular dysfunction, although no data are available yet to support its actual
Some familiar faces

- InfoRetriever
  - Clinical Calculators
Some familiar faces

- First Consult

<table>
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<td>Menopause</td>
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<td>Metabolic syndrome</td>
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Some familiar faces

• First Consult

Mallory-Weiss syndrome

Description

• Linear mucosal tears at the gastroesophageal junction
• Typically, tears occur following episodes of retching or nonbloody vomiting
• Mucosal tears can cause upper gastrointestinal bleeding, most likely hematemesis. Isolated melena or hematochezia is less common
• A history of excessive alcohol intake preceding the episode of bleeding is often found in patients with Mallory-Weiss tears
• Mallory-Weiss syndrome is an endoscopic diagnosis and should be considered in the differential diagnosis of all patients with upper gastrointestinal bleeding

Common causes
• Clinical presentation
• Differential diagnosis
• Questions to ask
• Tests
• Diagnosis clinical pearls
• Summary of therapies
• Medications and other therapies
• Treatment clinical pearls
• Prognosis
DynaMed

- Comprehensive, EBM-based, practical
- Free through UMDNJ (get code from library)

**Clostridium difficile**

**Description**

- Clostridium difficile-associated diarrhea has been designated by Center for Disease Control and Prevention as one of the most important nosocomial infections

**Also called**

- antibiotic-associated diarrhea (AAD), pseudomembranous

**Causes and Risk Factors**

**Causes**

- Clostridium difficile (endospore forming anaerobic gram-positive large rod), rarely S. aureus in children
- almost all cases associated with antibiotic use, but non-antibiotic-associated cases have been reported (Adv Stud Med 2003 Nov-Dec;3(10):571 PDF)
**Clostridium difficile**

**History and Physical**

**History**

*Chief Concern (CC)*
- diarrhea (watery or mucoid), abdominal cramps or pain, fever

*History of Present Illness (HPI)*
- can occur up to 8 weeks after antibiotics but usually within first few days
- can vary from asymptomatic to

**Diagnosis**

**Blood tests**
- leukocytosis (blood and stool)

**Imaging studies**
- sigmoidoscopy, colonoscopy - white patches or grayish mucosal exudate (pseudomembrane of fibrin and PMNs), focal mucosal ulceration
- picture of CT image and pseudomembranes at stoma
**Diagnosis**

*Making the diagnosis* 🎉
- Stool ELISA assay for toxin A

*Rule out* 🍀
- Uremia, ischemia, adverse drug reaction, staphylococcus, Candida, antibiotic-resistant salmonella or shigella
- Most cases of postantibiotic diarrhea are not associated with C. difficile infection

**Treatment**

*Treatment overview* 🎉
- Stop antibiotics, replace fluids
- Recommended treatment from The Medical Letter
  - Metronidazole 500 mg PO 3 times daily for 10 days
  - Recommended for mild to moderate C. difficile-associated diarrhea and for first recurrence
  - Costs $146.70 for Flagyl,
Epocrates

- FREE drug guide + clinical calculators (must register at Epocrates website)
- Drug monographs updated daily
Contraindicated:
indinavir <-> rifampin

[indinavir/rifampin]

contraindicated: combo may decr. protease inhibitor levels, efficacy (hepatic metab. induced)
Hopkins ABX Guide (Palm only)

• On-par with Sanford Guide for ABX treatment
• Available for free from Hopkins website
**Hopkins ABX Guide (Palm only)**

### GENITOURINARY
- Bacterial Cystitis, Acute, Uncomplicated
- Bacterial Prostatitis, Acute
- Bacterial Prostatitis, Chronic
- Epididymitis
- Pyelonephritis, Acute, Uncomplicated
- Urethritis [Men]
- Urinary Tract Infection, Recurrent [Women]
- Urinary Tract Infection, Uncomplicated (UTI)

### DIAGNOSIS (Pathogen) (Antibiotic)

### BACTERIAL CYSTITIS, ACUTE, UNCOMPPLICATED

**TREATMENT REGIMENS**

**Short Course Therapy**

- Trimethoprim-
  - Sulfamethoxazole 1 DS tab PO bid x 3d (Preferred for empiric Rx if prevalence of E. coli resistance to TMP-SMX <20%; if >20% use fluoroquinolone)
- Trimethoprim 300 mg PO qd x 3d
- Norfloxacin 400 mg PO bid x
Diagnosaurus

• Free DDx guide
Diagnosaurus

Diagnosaurus 2.0
▼ All entries
Tachycardia
Tachycardia, multifocal atrial
Tachycardia, paroxysmal supraventricular...
Tachycardia, sinus
Tachycardia, ventricular
Taenia (tapeworms)
Takayasu's arteritis
Tall stature
Tamponade, cardiac
Tapeworms

Sinus tachycardia
▼ DDx
• Fever
• Exercise
• Emotion
• Pain
• Anemia
• Heart failure
• Shock
• Hyperthyroidism
• Drugs
• Alcohol withdrawal
Merck Medicus

- Harrison’s Practice
- Pocket Guide to Dx Tests
- Can download journal abstracts to PDA
Sarcoidosis

Sarcoidosis is characterized by noncaseating granulomas in one or more organs and tissues; etiology is unknown. The lungs and lymphatic system are most often affected, but sarcoidosis may affect any organ.

Pulmonary symptoms range from none (limited disease) to exertional dyspnea and, rarely, affects children and older adults. Worldwide, prevalence is greatest in black Americans and northern Europeans, especially Scandinavians. Disease presentation...
Iron-binding capacity

**Test/Range/Collection**

**Iron-binding capacity, total, serum**

(TIBC)

250-460 µg/dL

[45-82 µmol/L]

Tube: Marbled

Iron is transported in plasma complexed to transferrin, which is synthesized in the liver.

Total iron-binding capacity is calculated from transferrin levels measured immunologically. Each molecule of transferrin has two iron-binding sites, so its iron-binding capacity is 1.47 mg/g.

- **Increased in:** Iron deficiency anemia, late pregnancy, infancy, hepatitis. Drugs: oral contraceptives.
- **Decreased in:** Hypoproteinemic states (eg, nephrotic syndrome, starvation, malnutrition, cancer), hyperthyroidism, chronic inflammatory disorders, chronic
MedCalc

**Formulas and scores:**
- Body surface area
- Cardiac output (echo)
- Cardiac output (Fick)
- Cardiac valve area (Gorlin)
- Change in plasma Na
- Child-Pugh classification
- Coronary heart disease risk
- Corrected calcium (albumin)
- Corrected calcium (protein)
- Corrected phenytoin (albumin)
- Corrected sodium (glucose)
- Corrected sodium (lipids)

**Corrected calcium (albumin):**

- Calcium: 6.8 [mg/dL]
- Albumin: 1.3 [g/dL]

**Corrected Ca =** 8.96 [mg/dL]
<table>
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<th>Shots 2007</th>
<th>Child</th>
<th>DTaP: Basics</th>
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</thead>
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<td><strong>Birth</strong></td>
<td>1</td>
<td><strong>Tetanus, Diphtheria, and Pertussis (DTaP) - Basics</strong> (Minimum age: 6 weeks)</td>
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<td>2</td>
<td><strong>Childhood School</strong></td>
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<tr>
<td><strong>HepB</strong></td>
<td>HepB</td>
<td><strong>Basics</strong></td>
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<td>DTaP</td>
<td>- Adverse Reactions</td>
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<td>- Contraindications</td>
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<td>- Catch-Up</td>
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<td><strong>IPV</strong></td>
<td>IPV</td>
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<tr>
<td><strong>Flu</strong></td>
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<td>- Risk Communication</td>
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<tr>
<td><strong>MMR</strong></td>
<td>MMR</td>
<td>- Pictures</td>
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<tr>
<td><strong>Var</strong></td>
<td>Var</td>
<td><strong>OK</strong></td>
</tr>
<tr>
<td><strong>HepA</strong></td>
<td>HepA (2 doses)</td>
<td><strong>Basics</strong></td>
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<tr>
<td><strong>Men</strong></td>
<td>MPSV4</td>
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</table>
## Shots2007

### Adolescent

<table>
<thead>
<tr>
<th>Age Group</th>
<th>7-10 Years</th>
<th>11 - 12 Years</th>
<th>13-14 Years</th>
<th>15 Years</th>
<th>16-18 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Td/Tdap</td>
<td>Footnote</td>
<td>Tdap</td>
<td>Tdap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV</td>
<td>Footnote</td>
<td>HPV (3 doses)</td>
<td>HPV Series</td>
<td></td>
<td></td>
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<tr>
<td>Men</td>
<td>MPSV4</td>
<td>MCV4</td>
<td>MCV4</td>
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<tr>
<td>PPV</td>
<td></td>
<td>PPV</td>
<td></td>
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</tr>
<tr>
<td>Flu</td>
<td>Influenza (Yearly)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HepA</td>
<td></td>
<td>HepA Series</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>HepB</td>
<td></td>
<td>HepB Series</td>
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</tr>
<tr>
<td>IPV</td>
<td></td>
<td>IPV Series</td>
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<tr>
<td>MMR</td>
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<td>MMR Series</td>
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<tr>
<td>Var</td>
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<td>Varicella Series</td>
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### Adult

<table>
<thead>
<tr>
<th>Age Group</th>
<th>19-49 years</th>
<th>50-64 years</th>
<th>≥ 65 years</th>
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<tbody>
<tr>
<td>Td/Tdap</td>
<td>1-dose Td booster every 10 yrs</td>
<td>Substitute 1 dose of Tdap for Td</td>
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</tr>
<tr>
<td>HPV</td>
<td>3 doses (females)</td>
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<tr>
<td>MMR</td>
<td>1 or 2 doses</td>
<td>1 dose</td>
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</tr>
<tr>
<td>Var</td>
<td>2 doses (0, 4-8 wks)</td>
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</tr>
<tr>
<td>Flu</td>
<td>1 dose annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPV</td>
<td>1-2 doses</td>
<td>1 dose</td>
<td></td>
</tr>
<tr>
<td>HepA</td>
<td>2 doses (0, 6-12 mos, or 0, 6-18 mos)</td>
<td></td>
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</tr>
<tr>
<td>HepB</td>
<td>3 doses (0, 1-2, 4-6 mos)</td>
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<td></td>
</tr>
<tr>
<td>Men</td>
<td>1 or more doses</td>
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</tbody>
</table>
AHRQ – Screening Guidelines

AHRQ ePSS Search
All fields are optional.
Age: ▼ ▼ Years
Sex: □ Female □ Pregnant □ Male
Tobacco User? □ Yes □ No
Sexually Active? □ Yes □ No

AHRQ ePSS Search
All fields are optional.
Age: 20 ▼ ▼ Years
Sex: ✔ Female □ Pregnant □ Male
Tobacco User? ✔ Yes □ No
Sexually Active? ✔ Yes □ No
Chlamydia: Screening -- Female, 25 Years or Younger and Older Women at Increased Risk

SPECIFIC RECOMMENDATIONS:
The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians routinely screen all sexually active women aged 25 years and younger, and other asymptomatic women at increased risk for infection, for
Eponyms

Eponyms  version 1.85
July 25, 2006

Andrew J. Yee, MD
yee@post.harvard.edu
http://eponyms.net

Palm OS client by M. Tschopp, MD
Icons designed by O. Karam, MD
Kallman’s syndrome
anosmia; hypogonadotrophic hypogonadism stemming from failure of LHRH-expressing neurons to migrate, etc.
HACEK Group Infections (MED)

Introduction
Clinical
Differentials
Workup
Treatment
Medication
Follow Up
Miscellaneous

Author: Mirabelle Kelly, MD
Medical Editor: Kenneth C Earhart
Managing Editor: John L Brusch

Synonyms, Key Words, and Related Terms

Haemophilus aphrophilus, Haemophilus paraphrophilus, Haemophilus parainfluenzae, Actinobacillus actinomycetemcomitans, Cardiobacterium hominis, Eikenella corrodens, Kingella species, endocarditis, gram-negative endocarditis

Background: The acronym HACEK refers to a grouping of gram-negative bacilli; Haemophilus species (H parainfluenzae, H aphrophilus, and H paraphrophilus), Actinobacillus actinomycetemcomitans, Cardiobacterium hominis, Eikenella corrodens, and Kingella species. These organisms share an enhanced capacity to produce endocardial infections. They are responsible for 5-10% of cases of infective endocarditis (IE) involving native valves and are the most common cause of gram-negative endocarditis among persons who do not abuse intravenous drugs.
Meditrek/PDA Support

• For PDA support in Smith Library, contact: Steve Modica @ 2-9550 or modicasf@umdnj.edu (daytime); or Jonas Desir @ 2-4700 or desirjd@umdnj.edu (evenings & weekends)
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Links

• UMDNJ Library PDA Toolkit: http://www4.umdnj.edu/camlbweb/pda.html
  • Contains links to DynaMed, InfoRetriever, First Consult, eMedicine
• NJMS Meditrek Info: http://njms.umdnj.edu/tss/meditrek.cfm
• Epocrates: http://www.epocrates.com/products/rx/
• Hopkins ABX Guide: http://hopkins-abxguide.org/
• Sanford Guide to ABX Tx: http://www.sanfordguide.com
• Merck Medicus (MRK manual, Harrison’s): http://www.merckmedicus.com
• MedCalc: http://www.med-ia.ch/medcalc/
• Medical Eponyms: http://eponyms.net/eponyms.htm
• Shots 2007: http://www.immunizationed.org/
• Skyscape (NUMEROUS medical books): http://www.skyscape.com