Update in Hospital Medicine 2013

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Update in Hospital Medicine 2013

• Updated literature
• March 2012–March 2013

Process:
• CME collaborative review of journals
  - Including ACP J. Club, J. Watch, etc.
• Three hospitalists ranked articles
  - Definitely include, can include, don't include

Chose articles based on 3 criteria:
1) Change your practice/teaching
2) Modify your practice/teaching
3) Confirm your practice/teaching

• Hope to not use the words
  - Markov model, Kaplan-Meier, Student’s t-test
• Focus on breadth, not depth
Update in Hospital Medicine 2013

- Major reviews/short takes
- Case-based format
- Multiple choice questions

Syllabus/Bookkeeping

- No conflicts of interest
- Final presentation available by email:

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Transfusion in GI Bleeding

**Question:** When should we transfuse in the setting of an acute GI bleed?

**Design:** RCT, 921 pts, acute upper GI bleeding; Restrictive (7g/dL) vs. liberal (9g/dL)

**Conclusion:** Restrictive threshold decreased transfusions, rebleed, mortality; fewer adverse events; poss. not class C cirrhosis

**Comment:** Single center, not blinded; all pts. got 1 unit, early EGD, exclude massive bleeding

Transfusion may impair hemostasis, increase intestinal blood flow; infection? Should decrease transfusion threshold.

Short Take: Hepatic Encephalopathy

In a RCT comparing rifaximin + lactulose vs. lactulose alone in the treatment of hepatic encephalopathy (HE), combination treatment resulted in:
1. A significant increase in complete reversal of HE (76% vs. 51%, NNT 4) AND
2. A significant decrease in mortality (24% vs. 49%, NNT 4) mainly due to a decrease in sepsis.
3. No difference in rates of GI bleeding or hepatorenal syndrome.


Short Take: Curbside vs. Formal Consults

At a single academic medical center, 50 curbside consults over a one-year period were also evaluated in a formal consultation on the same day. Comparing the two revealed:

Information was either inaccurate or incomplete in 51% of the curbside consults.

Management advice after formal consultation differed from that given in the curbside in 60% of patients.


Short Take: Albumin after Paracentesis

In a meta-analysis of RCTs of albumin versus no treatment or other treatments, albumin infusion for large volume paracentesis (> 5 liters) resulted in:

Decrease in "post-paracentesis circulatory dysfunction" when compared to no treatment (OR 0.07, 95% CI 0.02-0.28) or alternative treatment (OR 0.39, 95% CI 0.27-0.55).

Decrease in mortality versus alternative treatments (OR 0.64, 95% CI 0.41-0.98) but not when compared to no treatment (only 1 trial looked at mortality).

Professional medical interpreters

**Question:** Do professional interpreters make a difference in LOS and readmission rates?

**Design:** Retrospective observational study; low-English proficiency inpatients

**Conclusion:** Using professional interpreters at admission and/or discharge may reduce LOS; No interpreter led to higher readmission;

**Comment:** Single center; Why no interpreter? Professional interpreters received extensive training – findings may not be generalizable

Admission may be most important for LOS; Take the time to get/use the interpreter


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Case 1. Take home points

**Start:**
- Using albumin to prevent circulatory dysfunction in large volume paracentesis
- Using in person interpreters at admission and discharge

**Stop:**
- Asking consultants for a curbside instead of a formal consult
- Transfusing patients with an UGIB and a Hgb >7

**Consider:**
- Using rifaxamin with lactulose to treat hepatic encephalopathy
Antibiotics in COPD Exacerbation

Question: In COPD exacerbations, do antibiotics provide a benefit in patients given steroids?
Design: Retrospective cohort study; 53,000 pts (> 40 yo) with a COPD exacerbation; No ICU admits;
Conclusion: In COPD exacerbations, antibiotics decrease mortality when added to steroids
May decrease 30-d readmission; no antibiotic better than others
Comments: Retrospective, database, confounders, etc.
Confirms prior studies;
Most pts admitted w/ COPD exac. should get abx, “the sicker, the better”

Steroids in COPD Exacerbation

Question: In COPD exacerbations, what is the optimal duration of steroids?
Design: Randomized non-inferiority trial;
Placebo controlled, double blind
Past or present smokers (no asthma), >40
Conclusion: In COPD exacerbations, no difference in frequency or time to exacerbation with 5 vs. 14 days of steroid therapy
Comments: Well done RCT, first to include ICU patients.
Confirms prior observational studies

Short Take: C. difficile sniffing dogs

Beagle trained to identify the smell of C. difficile in stool samples and sit or lie down with a positive result.
Performance was tested on 100 stool samples & 300 patients (30 cases and 270 controls).
Beagle had perfect sensitivity and specificity identifying stool samples, and comparable to conventional assays (98% specificity) when identifying infected patients.
Stool transplant for *C. difficile*

**Question:** What is the efficacy of stool transplant in the management of *C. difficile*  
**Design:** Systematic review of observational trials  
**Conclusions:** Stool transplant effective treatment for recurrent *C. difficile* to prevent future episodes. An RCT confirmed these results.  
**Comments:** Unclear when to use in course of therapy  
Unclear best mechanism. Consider in the most refractory cases


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**Short Take: Doxycycline for *C. difficile***

- Retrospective cohort study of 2305 adults who received at least 1 dose of ceftriaxone for any diagnosis after admission to San Francisco General Hospital.  
- In hospitalized adults receiving ceftriaxone, co-administration of doxycycline was associated with a **27% lower risk** of developing *C. difficile* infection.


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**Case 2. Take home points**

**Start:**  
- Prescribing antibiotics right away in COPD exacerbations  
- Recognizing the risks of PPIs in *C. diff*  
- Referring those with relapsing *C. diff* for stool transplant

**Stop:**  
- Prescribing long courses of steroids for COPD

**Consider:**  
- Use Doxycycline for atypical coverage in those with a hx of CDI
Short Take: Cultures & PO Intake

An observational cohort study of 1179 patients who had blood cultures drawn, mostly in the setting of fever.

Reviewed nurse-documented food intake in the meal before cultures were drawn. Patients with documented high food intake (>80%) had a negative predictive value of 98.3% in ruling out bacteremia.


Short Take: PICC Lines and Risk of VTE

Large meta-analysis looking at 52 studies asked 2 questions:

1) Overall Incidence of VTE with PICC lines?

<table>
<thead>
<tr>
<th>Population</th>
<th>VTE Incidence</th>
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<tbody>
<tr>
<td>Overall</td>
<td>4.9% (4.1-5.6)</td>
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<tr>
<td>Cancer</td>
<td>6.7% (4.7-8.6)</td>
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<tr>
<td>ICU</td>
<td>13.91% (7.7-20.1)</td>
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2) Risk of VTE with PICC versus other CVCs

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<tr>
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<th>DVT</th>
<th>PE</th>
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<tbody>
<tr>
<td>PICC vs CVCs</td>
<td>2.55 (1.5-4.2)</td>
<td>None reported</td>
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Heparin-induced thrombocytopenia

**Question:** Can we use a pretest scoring system to predict the likelihood of HIT?

**Design:** Systematic review & meta-analysis; Cohort studies of the 4Ts scoring tool;

**Conclusion:** Most pts are low-risk for HIT; 4Ts good to exclude possibility of HIT; Intermediate/high risk need further eval.

**Comment:** Some study heterogeneity, no RCT of use in practice; Likely should be using this when we think about HIT – avoid unnecessary/costly work-ups.


End of Life Discussions at Terminal Hospital Visit

**Question:** Does treatment vary in cancer patients who lose decision making capacity during their terminal hospital stay?

**Design:** Retrospective review

**Conclusion:** Majority of patients have capacity on admission, many lose capacity during hospital stay. EOL discussions with surrogates is associated with more aggressive care

**Comment:** Demonstrates a possible lost opportunity for EOL discussions. Observational, excludes EOL discussions that were not documented, other possible explanations for the associations seen

(Zaros MC, et al. J of Hospital Medicine, 2013; 8:334-340 Update in Hospital Medicine)

Short Take: Hungry Shopping and Calorie Intake

In 1 group of fasting participants, half were given Wheat Thins and the other half were left hungry and then asked to shop online for food

In another, researchers tracked hungry versus full shoppers at a grocery store

In both groups, hungry shoppers bought a higher ratio of high calorie foods, while the total number of items was not significantly different.

### Case 3. Take home points

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<tr>
<td>1. Before ordering a PICC line, carefully consider their advantages and disadvantages, especially the risk of VTE</td>
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<tr>
<td>2. Calculate a 4T score to help with determining need for further testing</td>
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<td>3. Have EOL discussions early in the hospital stay</td>
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<table>
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<tr>
<td>1. Food intake as a predictor of bacteremia</td>
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<tr>
<td>2. Beware of “buying while hungry”</td>
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