The Articles of 2013

WHAT WAS IMPORTANT...

...AT LEAST TO SOME OF US
How Did I Choose What I Chose?

- Essential Evidence
- Journal Watch
- Our faculty

Prioritized:
- key areas of FM practice
- might directly change clinical practice
- might be leading to paradigm changes
- Fun
Important New Guidelines

CHOLESTEROL AND BP
### 2013 ACC/AHA Lipid Guidelines

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EBM Approach</td>
<td>• Industry connections</td>
</tr>
<tr>
<td>• Move away from number LDL targets</td>
<td>• Good risk calculator?</td>
</tr>
<tr>
<td></td>
<td>• Low 10 year risk cutoff for treatment (7.5%)</td>
</tr>
<tr>
<td></td>
<td>• Failure to communicate risks/harms of treatment</td>
</tr>
<tr>
<td></td>
<td>• Most Panelists subspecialists</td>
</tr>
<tr>
<td></td>
<td>• No draft recs and time for public comment</td>
</tr>
<tr>
<td>Patient Type</td>
<td>Treatment Recommendation</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Known ASCVD (Atherosclerotic cardiovascular disease)</td>
<td>Start HIGH potency statin</td>
</tr>
<tr>
<td>LDL &gt;190</td>
<td>Start HIGH potency statin</td>
</tr>
<tr>
<td>Diabetes Age 40-75</td>
<td>Start MODERATE potency statin</td>
</tr>
<tr>
<td>10yr risk ASCVD &gt;7.5% using Pooled Cohort Equation</td>
<td>Start MODERATE to HIGH potency statin</td>
</tr>
</tbody>
</table>
SmartPhone App

ASCVD Risk Estimator
American College of...
No Ratings

ASCVD Risk Estimator*

<table>
<thead>
<tr>
<th>10-Year ASCVD Risk</th>
<th>Lifetime ASCVD Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.4% calculated risk</td>
<td>69% calculated risk</td>
</tr>
<tr>
<td>3.6% risk with optimal risk factors**</td>
<td>5% risk with optimal risk factors</td>
</tr>
</tbody>
</table>

Recommendation Based On Calcul...

Gender  M  F
Age  55
Race  White  African American
Statins Specified

High potency statin (lower chol by >50%)
- Atorvastatin 80mg (40 if can’t tolerate)
- Rosuvastatin 20mg

Moderate potency statin (lower chol by ~30-50%)
- Atorvastatin 10-20mg
- Rosuvastatin 5-10mg
- Simvastatin 20-40mg
- Pravastatin 40-80mg
- Lovastatin 40mg
- Fluvastatin 40mg bid
More Controversy/Perspectives

- UK (and other) guidelines uses risk cutoff of 20% for statin initiation
  - Pretest 20%->16%. (NNT 25)
  - Pretest 7.5%->5% (NNT 67)

- Risk calculator puts all men >70 and *all* African-American men >65 on statins (even with nl BP/chol)
## Reminder: JNC7

<table>
<thead>
<tr>
<th>BP Classification</th>
<th>SBP* mmHg</th>
<th>DBP* mmHg</th>
<th>Lifestyle Modification</th>
<th>Initial Drug Therapy Without Compelling Indication</th>
<th>Initial Drug Therapy With Compelling Indications (See Table 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt;120</td>
<td>and &lt;80</td>
<td>Encourage</td>
<td>No antihypertensive drug indicated.</td>
<td>Drug(s) for compelling indications.‡</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120–139</td>
<td>or 80–89</td>
<td>Yes</td>
<td>Thiazide-type diuretics for most. May consider ACEI, ARB, BB, CCB, or combination.</td>
<td>Drug(s) for the compelling indications.‡ Other antihypertensive drugs (diuretics, ACEI, ARB, BB, CCB) as needed.</td>
</tr>
<tr>
<td>Stage 1 Hypertension</td>
<td>140–159</td>
<td>or 90–99</td>
<td>Yes</td>
<td>Thiazide-type diuretics for most. May consider ACEI, ARB, BB, CCB, or combination.</td>
<td>Drug(s) for the compelling indications.‡ Other antihypertensive drugs (diuretics, ACEI, ARB, BB, CCB) as needed.</td>
</tr>
<tr>
<td>Stage 2 Hypertension</td>
<td>≥160</td>
<td>or ≥100</td>
<td>Yes</td>
<td>Two-drug combination for most† (usually thiazide-type diuretic and ACEI or ARB or BB or CCB).</td>
<td>Drug(s) for the compelling indications.‡ Other antihypertensive drugs (diuretics, ACEI, ARB, BB, CCB) as needed.</td>
</tr>
</tbody>
</table>
Adult aged ≥18 years with hypertension

Implement lifestyle interventions (continue throughout management).

Set blood pressure goal and initiate blood pressure lowering–medication based on age, diabetes, and chronic kidney disease (CKD).

General population (no diabetes or CKD) vs. Diabetes or CKD present

- Age ≥60 years
  - Blood pressure goal: SBP <150 mm Hg, DBP <90 mm Hg
    - Nonblack: Initiate thiazide-type diuretic or ACEI or ARB or CCB, alone or in combination.
    - Black: Initiate thiazide-type diuretic or CCB, alone or in combination.

- Age <60 years
  - Blood pressure goal: SBP <140 mm Hg, DBP <90 mm Hg

- All ages
  - Diabetes present
    - No CKD: Blood pressure goal: SBP <140 mm Hg, DBP <90 mm Hg
    - Initiate ACEI or ARB, alone or in combination.

- All ages
  - CKD present with or without diabetes
    - Blood pressure goal: SBP <140 mm Hg, DBP <90 mm Hg
    - Initiate ACEI or ARB, alone or in combination with other drug class.

Select a drug treatment titration strategy

A. Maximize first medication before adding second or
B. Add second medication before reaching maximum dose of first medication or
C. Start with 2 medication classes separately or as fixed-dose combination.

At goal blood pressure?

Yes

Reinforce medication and lifestyle adherence.
For strategies A and B, add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB). For strategy C, titrate doses of initial medications to maximum.

At goal blood pressure?

No

Reinforce medication and lifestyle adherence.
Add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).

At goal blood pressure?

No

Reinforce medication and lifestyle adherence.
Add additional medication class (eg, β-blocker, aldosterone antagonist, or others) and/or refer to physician with expertise in hypertension management.

At goal blood pressure?

Yes

Continue current treatment and monitoring.
Adult aged ≥18 years with hypertension

Implement lifestyle interventions (continue throughout management).

Set blood pressure goal and initiate blood pressure lowering medication based on age, diabetes, and chronic kidney disease (CKD).

General population (no diabetes or CKD)  Diabetes or CKD present

Age ≥60 years

Blood pressure goal
SBP <150 mm Hg
DBP <90 mm Hg

All ages present
No CKD

Blood pressure goal
SBP <140 mm Hg
DBP <90 mm Hg

All ages
CKD present with or without diabetes

Blood pressure goal
SBP <140 mm Hg
DBP <90 mm Hg

Nonblack

Initiate thiazide-type diuretic or ACEI or ARB or CCB, alone or in combination.

Select a drug treatment titration strategy
A. Maximize first medication before adding second or
B. Add second medication before reaching maximum dose of first medication or
C. Start with 2 medication classes separately or as fixed-dose combination.

At goal blood pressure?
Yes

Reinforce medication and lifestyle adherence.
For strategies A and B, add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).
For strategy C, titrate doses of initial medications to maximum.

At goal blood pressure?
No

Black

Initiate thiazide-type diuretic or CCB, alone or in combination.

Initiate ACEI or ARB, alone or in combination with other drug class.

All races

At goal blood pressure?
Yes

Reinforce medication and lifestyle adherence.
Add and titrate thiazide-type diuretic or ACEI or ARB or CCB (use medication class not previously selected and avoid combined use of ACEI and ARB).

At goal blood pressure?
No

Reinforce medication and lifestyle adherence.
Add additional medication class (eg, β-blocker, aldosterone antagonist, or others) and/or refer to physician with expertise in hypertension management.

At goal blood pressure?
No

Continue current treatment and monitoring.
Age ≥ 60 years

Blood pressure goal
SBP < 150 mm Hg
DBP < 90 mm Hg

Age < 60 years

Blood pressure goal
SBP < 140 mm Hg
DBP < 90 mm Hg

All ages
Diabetes present
No CKD

Blood pressure goal
SBP < 140 mm Hg
DBP < 90 mm Hg

All ages
CKD present with or without diabetes

Blood pressure goal
SBP < 140 mm Hg
DBP < 90 mm Hg
Initiate thiazide-type diuretic or ACEI or ARB or CCB, alone or in combination.\footnote{A}

Initiate thiazide-type diuretic or CCB, alone or in combination.
More controversy? (endorsed by........)

5 of 17 JNC8 authors wrote commentary rejecting 150mmHg target for >60

Jackson T. Wright Jr., MD, PhD; Lawrence J. Fine, et al. “Evidence supporting a systolic blood pressure goal of less than 150 mm Hg in patients aged 60 years or older: the minority view.” Ann Intern Med. Published online 14 January 2014 doi:10.7326/M13-2981.

Others say “There is no evidence supporting drug treatment for patients of any age with mild hypertension” (SBP: 140-159 and/or DBP 90-99)

Will JNC8 Last?

- AHA President-Elect: "We are concerned that relaxing the recommendations may expose more persons to the problem of inadequately controlled blood pressure."

- ACC/AHA anticipates new guideline in 2015
Controversial Guidelines...What’s Our Job?

Naïve Empiricism
Pre-EBM learners
Authority and algorithms

Clever Nihilism
New EBM learners
Defensive skepticism

Mature Pragmatism
Seasoned EBM learners
Balance and perspective
“I understand the limits of this information and how best to apply it to my patients.”

Figure 1: Developmental model of attitudes regarding learning of evidence-based medicine (EBM)
Articles - Main Page

Please group articles about same topic in the same row to keep things readable across the page.

**The Society of Teachers of Family Medicine has put together an excellent document.**

Cardiology
- Atrial Fibrillation: Diagnosis and treatment.
- Cholesterol Management: 2013 ACC AHA Cholesterol Guidelines
- Pacemakers: quick waveform assessment.
- Heart Failure:
  - HF 2009 Lancet review.
  - BNP: algorithm for the use of proBNP to diagnose heart failure (use caution).
  - Chest Pain/ACS: diagnosing the cause of chest pain (AAFP).
  - Chest Pain Risk Stratification Models: TIMI Score and HEART Score.
- EKGs: ECG pocket guide.
- ECG Wave-Maven Teaching Tool: http://ecg.bidmc.harvard.edu/maven/maven.html
- Hypertension: info filed under nephrology.
- Perioperative eval and care: Preoperative Testing Before Noncardiac Surgery (AAFP 2011) and Summary.pdf

Nephrology
- Hyponatremia: the utility of the "usual" workup.
- Hyponatremia review.
- Acute Renal Failure: Management of ARF (AAFP).
- Chronic Renal Failure
  - Outpatient management of Chronic Kidney Disease.
  - Early vs late initiation of dialysis (NEJM trial).
- Hypertension: JNC8 hypertension guidelines, resistant hypertension.
- Misc renal: hyperkalemia (AAFP), hepatorenal syndrome (NEJM).
5 Days of Steroids for COPD?

- Glucocorticoids help COPD exacerbations.
  - Dose?
  - Duration?
- RCT in Switzerland, 314 pts
- All: day 1 dose of methylprednisolone (40mg)
  - Then 40mg pred D2-14, vs
  - 40mg D2-5 + placebo D6-14
- No change in outcomes @ 6 months

*JAMA*
New Otitis Media Guidelines

- Previous Guidelines: 2004
- AAP and AAFP co-developed
- Healthy kids 6 months-12 years
- Increasing focus on diagnosis (including effusion)

**Figure 2**
## Initial Management (AAP 2013)

<table>
<thead>
<tr>
<th>Age</th>
<th>Otorrhea With AOM^a</th>
<th>Unilateral or Bilateral AOM^a With Severe Symptoms^b</th>
<th>Bilateral AOM^a Without Otorrhea</th>
<th>Unilateral AOM^a Without Otorrhea</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 mo to 2 y</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy or additional observation</td>
</tr>
<tr>
<td>≥2 y</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy or additional observation</td>
<td>Antibiotic therapy or additional observation</td>
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^a Applies only to children with well-documented AOM with high certainty of diagnosis (see Diagnosis section).

^b A toxic-appearing child, persistent otalgia more than 48 h, temperature \( \geq 39^\circ C \) \( (102.2^\circ F) \) in the past 48 h, or if there is uncertain access to follow-up after the visit.

^c This plan of initial management provides an opportunity for shared decision-making with the child’s family for those categories appropriate for additional observation. If observation is offered, a mechanism must be in place to ensure follow-up and begin antibiotics if the child worsens or fails to improve within 48 to 72 h of AOM onset.

AAFP
### Initial Management (AAP 2013)

**TABLE 4** Recommendations for Initial Management for Uncomplicated AOM

<table>
<thead>
<tr>
<th>Age</th>
<th>Otorrhea With AOM&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Unilateral or Bilateral AOM&lt;sup&gt;a&lt;/sup&gt; With Severe Symptoms&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Bilateral AOM&lt;sup&gt;a&lt;/sup&gt; Without Otorrhea</th>
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<td>≥2 y</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy</td>
<td>Antibiotic therapy or additional observation</td>
<td>Antibiotic therapy or additional observation&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
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### Initial Management (AAP 2013)

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http://ainotes.wikispaces.com/Otitis+Media
### SORT: KEY RECOMMENDATIONS FOR PRACTICE

<table>
<thead>
<tr>
<th>Clinical recommendation</th>
<th>Evidence rating</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>An AOM diagnosis requires moderate to severe bulging of the tympanic membrane, new onset of otorrhea not caused by otitis externa, or mild bulging of the tympanic membrane associated with recent onset of ear pain (less than 48 hours) or erythema.</td>
<td>C</td>
<td>8</td>
</tr>
<tr>
<td>Middle ear effusion can be detected with the combined use of otoscopy, pneumatic otoscopy, and tympanometry.</td>
<td>C</td>
<td>9</td>
</tr>
<tr>
<td>Adequate analgesia is recommended for all children with AOM.</td>
<td>C</td>
<td>8, 15</td>
</tr>
<tr>
<td>Deferring antibiotic therapy for lower-risk children with AOM should be considered.</td>
<td>C</td>
<td>19, 20, 23</td>
</tr>
<tr>
<td>High-dose amoxicillin (80 to 90 mg per kg per day in two divided doses) is the first choice for initial antibiotic therapy in children with AOM.</td>
<td>C</td>
<td>8, 10</td>
</tr>
<tr>
<td>Children with middle ear effusion and anatomic damage or evidence of hearing loss or language delay should be referred to an otolaryngologist.</td>
<td>C</td>
<td>11</td>
</tr>
</tbody>
</table>

AOM = acute otitis media.

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.
Editorials: Controversies in Family Medicine

Should Children with Acute Otitis Media Routinely Be Treated with Antibiotics?
Yes: Routine Treatment Makes Sense for Symptomatic, Emotional, and Economic Reasons

No: Most Children Older Than Two Years Do Not Require Antibiotics
Mediterranean Diet in the News

- Strongest evidence yet to support a specific diet
- Large Spanish Study, 5 years
  - RCT (single blinded)
  - 3 Arms: Med. diet + nuts, Med. diet + olive oil, Low fat diet
  - 97% European Whites, 57% Women
  - 50% Type 2 DM
- Endpoints: MI, CVA, CV death
  - Reduction in combined endpoint (driven by CVA reduction)
  - NNT ~70
USPSTF
Low Dose CT Screening for Lung CA

- USPSTF: Grade B
- Recs: Age 55-80
- Pts with >50 pack-year hx of smoking
- Used 4 trials, only 1 “good quality”
  - 53k pts screened yearly for 3 years
  - 6.7% decrease in overall mortality. 20% decrease in Lung CA mortality (vs XR),
  - Smaller studies did not find benefit
- Lots of false positives, incidental findings (7.5%)
- Payment Implications?

*Ann Int Med (USPSTF)*
Other USPSTF-Related Items

- No change in Mammography rates since 2009 when new recs came out

  *Cancer*

- Recommended Hep C screening for high risk pts, and a one-time screen for all adults born between 1945-1965. Grade B (Updated from 2004)

  *Ann Int Med/USPSTF*
ACE plus ARB?
Meta-Analysis of Combined Use

- **Meta-analysis of RCTs**
  - Trials comparing dual therapy vs monotherapy (various ailments)
  - Heterogenous data

- **Good(?) Endpoints**
  - Slight decrease in hosp readmissions for HF

- **Not-so-good Endpoints**
  - No improvement in other HF endpoints
  - No difference in all cause mortality
  - Slight increase in mortality (RR 1.07) for non HF conditions
  - Increased Renal Failure in pts with HF (RR 2.19)
  - Increased hyperkalemia (9.6% vs 4.9%)
  - Increased withdrawal from treatment
ACE+ARB in DM2 with Nephropathy

- RCT
  - 1448 Veterans with DM2
  - GFR 30-89.9 and proteinuria
  - Started Losartan, added lisinopril
  - Median follow-up 2.2 years

- AKI and Renal Failure rates were higher in combo group

- Trend towards less ESRD (p=.07) but no real other differences (including mortality)

*NEJM*
Probiotics
Where Things Are

- **2012** Meta Analysis: probiotics decrease abx associated diarrhea in **adults and children**.
  
  *Aliment Pharmacol Ther*

- **2013** Meta-Analysis: reduce Cdif diarrhea in **adults/children** taking abx. No evidence of increased risk of adverse events. (7 Studies, 3.8k pts)
  
  *Ann Int Med*

- **2013** RCT: Probiotics appear not to reduce abx associated diarrhea or cdiff in **hospitalized older adults**. (n= 2900)
  
  *Lancet*
Some Inpatient Studies
<1% of CP pts who get stress tests after 2 negative troponins will have benefit from revascularization (retrospective cohort, n=4.1k)  

JAMA

No benefit to stenting atherosclerotic RAS (over med management)  

NEJM
More on Transfusions

- Restrictive transfusion strategy (<7Hb) better for GI bleeds. (RCT)
  - decreased mortality
  - shorter hospital stays
  - fewer adverse events. (RCT)

*NEJM*
Sports Medicine
2 New Important Guidelines

1. “Consensus Statement on Concussion in Sport.”

2. “Overuse Injuries and Burnout in Youth Sports: A Position Statement from the American Medical Society for Sports Medicine”
Onto Maternity Care
Some fun things...
ED clinicians (MDs, NPs) overidentify drug-seeking behavior. (PPV 41.2%). Drug seeking definition was 4 rx’s in 12 months from ≥4 providers. (Ann Emerg Med)

Gapabentin and Alcohol Dependence

- 12-week double blinded RCT of 150 men and women (JAMA):
  - gabapentin helped abstinence and heavy drinking rates
  - particularly as dose increased to 1800mg/d.
Misc tidbits, cont...

- Watching reality TV beauty shows (J Am Acad Dermatology)
  - significantly associated with increased tanning lamp use and outdoor tanning
  - especially among whites and women.
Diagnostic testing does not reassure patients with low probability of serious disease. (JAMA)

Mean duration of cough in adults is 18 days, pts expect a week (Ann Fam Med)

50% of kids will be free of ear pain within 3 days, 90% will take 7-8 days. Cough resolves in 50% of kids within 10 days, but 90% will take 25 days. (Pediatrics)
There seems to be an association between nut consumption and lower all-cause mortality, perhaps even a dose response curve. Study done in health professionals. (NEJM)
Guidelines


Additional Important Studies


Probiotics


USPSTF Related


How can you stay current?