Guideline Watch Update

THE MOST IMPORTANT NEW CLINICAL GUIDELINES

A Resource for Primary Care Physicians, Hospitalists, and Other Practicing Clinicians
Dear Reader,

Guideline Watch is an important feature of NEJM Journal Watch, helping us fulfill our mission to support clinicians’ efficient understanding of medical developments. Our 110 NEJM Journal Watch physician-editors regularly survey more than 250 medical journals to identify the most important clinical research and provide the clinical context you need to practice with confidence. As part of this effort, we appraise a broad range of clinical guidelines, choose those with the most clinical impact, and summarize them, highlighting key points and identifying what’s new.

Clinical guidelines are increasingly important in setting practice standards and meeting quality measures, and we know how much you value our Guideline Watch coverage. Therefore, we’ve compiled this collection of the latest, most relevant NEJM Journal Watch Guideline Watches to thank you for your engagement in our clinician community. We hope you enjoy this compilation and find it useful for providing the best and most responsible patient care. We invite you to interact with us at JWatch.org, where, in addition to the medical research we survey daily, you’ll find daily news, blogs, podcasts, reader perspectives, and expert interviews.

Jonathan N. Adler, MD
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| 2  | JNC 8 Has Finally Arrived – Hypertension Guidelines                      |
| 4  | Lipid-Modifying Therapy: A New Paradigm                                  |
| 6  | Guidelines for Assessment of Cardiovascular Risk                         |
| 7  | Management Guidelines for Overweight and Obesity in Adults              |
| 10 | USPSTF Finalizes Recommendation for Lung Cancer Screening               |
| 11 | Preventing Primary Breast Cancer in Women at Risk                       |
| 12 | Treating Severe Asthma                                                  |
| 13 | Guidelines for Management of Atopic Dermatitis — Part 1: Diagnosis and Assessment |
| 15 | Multidisciplinary Guidelines for Quality Care in Dementia               |
| 16 | Starting at the Very Beginning: Preventing the First Cesarean Delivery  |
JNC 8 Has Finally Arrived
— Allan S. Brett, MD

This updated hypertension guideline focuses on drug treatment thresholds and drug choices.

Sponsoring Organization: None; the authors were appointed to the Eighth Joint National Committee (JNC 8), which is not currently affiliated with any organization.

Target Population: Primary care providers and other clinicians who care for patients with hypertension

Background and Objective: To guide clinicians in managing hypertension in adults

Key Points
This guideline addresses blood pressure (BP) thresholds at which drug therapy should be initiated, BP targets during treatment, and choice of antihypertensive agents. Recommendations are as follows:

• For younger patients (age, <60), drug therapy should be considered for diastolic BP ≥ 90 mm Hg or systolic BP ≥ 140 mm Hg. The goal is < 140/90 mm Hg, but only the diastolic thresholds are based on high-quality evidence.

• For older patients (age, ≥ 60), drug therapy should be considered for diastolic BP ≥ 90 mm Hg or systolic BP ≥ 150 mm Hg; the goal is < 150/90 mm Hg.

• For patients with diabetes and patients with chronic kidney disease, the threshold to initiate drug therapy is 140/90 mm Hg; the goal is < 140/90 mm Hg.

• In nonblack patients, acceptable initial drug-class choices are thiazide-type diuretics, calcium-channel blockers (CCBs), angiotensin-converting–enzyme (ACE) inhibitors, and angiotensin-receptor blocker (ARBs).

• In black patients, acceptable initial drug-class choices are thiazide-type diuretics or CCBs.

• Patients with chronic kidney disease generally should receive ACE inhibitors or ARBs.

• When patients require escalation of therapy, either maximizing doses of individual drugs sequentially or combining several drugs at submaximal doses is acceptable.

What’s Changed
JNC 7, the predecessor of this guideline, was a comprehensive document that covered not only hypertension treatment, but also definitions of hypertension, issues in BP measurement, public health perspectives, lifestyle modification, and “special situations” in hypertension management. In contrast, JNC 8 focuses narrowly on drug treatment. Moreover, recommendations in JNC 7 were informed liberally by extrapolation from observational data and by expert opinion, as well as by data from randomized trials. In contrast, recommendations in JNC 8 mostly reflect randomized trial–level evidence, with explicit acknowledgement when a recommendation reflects only expert opinion. JNC 8 is very transparent about its guideline-writing process, which aspired to the Institute of Medicine’s report on creation of trustworthy guidelines (http://www.iom.edu/Reports/2011/Clinical-Practice-Guidelines-We-Can-Trust.aspx). Two specific differences regarding treatment are as follows:

• JNC 7 recommended a treatment threshold of 140/90 mm Hg regardless of age, whereas JNC 8 raises the systolic threshold at age 60. In addition, JNC 7 recommended a lower treatment threshold (130/80 mm Hg) for patients with diabetes or chronic kidney disease, but JNC 8 does not.

• In JNC 7, thiazide-type diuretics were recommended as initial drug therapy (unless compelling reasons dictated another drug class), with CCBs, ACE inhibitors, ARBs, and β-blockers as alternates. In JNC 8, the initial drug choice is broadened to four classes for nonblack patients and two classes for black patients. β-blockers are no longer recommended for initial therapy because they might afford less protection against stroke.

continued on page 3
JNC 8 Has Finally Arrived
continued from page 2

COMMENT

The Eighth Joint National Committee (JNC 8) is a fairly straightforward, evidence-based guideline that is limited in scope to drug therapy for hypertension (although the authors briefly acknowledge that the potential benefits of diet and exercise “cannot be overemphasized”); in my view, its recommendations are reasonable. However, the guideline might frustrate clinicians who are looking for more comprehensive guidance on the nuances of hypertension management. For example, how do we decide that a patient with labile blood pressure actually has a BP of 140/90 mm Hg, warranting treatment? (e.g., How many readings? In office or ambulatory?) Should we use hydrochlorothiazide or chlorthalidone? For patients with resistant hypertension, what is a reasonable checklist of things that we should consider before enlisting the help of a specialist?

It so happens that the American Society of Hypertension and International Society of Hypertension released their own new hypertension guideline during the same week JNC 8 was published. Their guideline is more comprehensive than JNC 8, and it addresses the rhetorical questions I posed above. It reads more like a review article than a guideline and does not explicitly discuss how it was created. Nevertheless, its treatment recommendations are similar to those of JNC 8, with one exception — it raises the systolic treatment threshold to 150 mm Hg only for patients older than 80 (not 60).

James PA et al. 2014 Evidence-based guideline for the management of high blood pressure in adults: Report from the panel members appointed to the Eighth Joint National Committee (JNC 8). [JAMA Dec 18; [e-pub ahead of print].

Lipid-Modifying Therapy: A New Paradigm

— Allan S. Brett, MD

An ACC/AHA guideline abandons treatment to specific LDL cholesterol targets.

**Sponsoring Organization:** American College of Cardiology/American Heart Association (ACC/AHA)

**Target Population:** Primary care providers, cardiologists

**Background and Objective**
To guide clinicians in treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults.

**Key points**
Treating to LDL cholesterol targets *is no longer recommended*; rather, clinicians should determine whether a patient falls into one of four mutually exclusive high-risk groups and should initiate statin therapy as follows:

- **Patients with clinical atherosclerotic cardiovascular disease (ASCVD) should receive high-intensity (age, <75) or moderate-intensity (age, ≥75) statin therapy.**

- **Patients with LDL cholesterol levels ≥190 mg/dL should receive high-intensity statin therapy.**

- **Diabetic patients aged 40–75 with LDL cholesterol levels of 70–189 mg/dL and without clinical ASCVD should receive at least moderate-intensity statin therapy (and possibly high-intensity statin therapy when estimated 10-year ASCVD risk is ≥7.5%).**

- **Patients without clinical ASCVD or diabetes but with LDL cholesterol levels of 70–189 mg/dL and estimated 10-year ASCVD risk ≥7.5% should receive moderate- or high-intensity statin therapy.**
  - High-intensity statin therapies are atorvastatin (40–80 mg) or rosuvastatin (Crestor; 20–40 mg).
  - Moderate-intensity statin therapies include atorvastatin (10–20 mg), rosuvastatin (5–10 mg), simvastatin (20–40 mg), pravastatin (40–80 mg), and several others.
  - With few exceptions, use of lipid-modifying drugs other than statins is discouraged.

- **Ten-year ASCVD risk — which includes both coronary events and stroke — is determined using an online calculator (http://www.cardiosource.org/science-and-quality/practice-guidelines-and-quality-standards/2013-prevention-guideline-tools.aspx) that can be accessed through the AHA and ACC websites. For further discussion of the new risk-assessment tool, see NEJM JW Gen Med Nov 12 2013.**

- **Lifestyle modification is recommended for all patients, regardless of cholesterol-lowering drug therapy.**

**What's Changed**
This guideline is designed explicitly to replace the widely used ATP3 guideline from the National Heart, Lung, and Blood Institutes, last updated in 2004. The obvious major change is that clinicians now are directed to initiate either moderate-intensity or high-intensity statin therapy for patients who fall into the four aforementioned categories, without titration to a specific LDL cholesterol target. Measuring lipids during follow-up of drug-treated patients is done to assess adherence to treatment and not to see whether a specific LDL cholesterol target has been achieved.

*continued on page 5*
Lipid-Modifying Therapy: A New Paradigm
continued from page 4

COMMENT
This guideline represents a paradigm shift for most clinicians and patients. The rationale for abandoning LDL cholesterol targets is that randomized trials showing benefits of statins generally have examined fixed-dose statin therapy, rather than titrated therapy, to achieve prespecified LDL cholesterol goals. Additionally, some drugs that “improve” the lipid profile (a surrogate endpoint) do not improve clinical outcomes, and statins are thought to exert benefit through pleiotropic effects apart from LDL cholesterol–lowering. The 7.5% risk threshold for primary prevention was selected based on analyses suggesting that benefit from treatment emerges at this threshold. The guideline writers do acknowledge that some patients do not tolerate statins (and might require treatment with lower doses) and that patient preferences for drug therapy should be discussed, particularly in primary prevention. However, the authors do not discuss drug costs: For some patients, the out-of-pocket cost of a high-intensity statin (including generic atorvastatin), compared with the cost for generic simvastatin or pravastatin, is a problem. An essay published last year, entitled “Three reasons to abandon low-density lipoprotein targets,” is a concise and readable analysis of the perspective embodied by this new guideline. (Circ Cardiovasc Qual Outcomes 2012; 5:2).

Guidelines for Assessment of Cardiovascular Risk
— Kirsten E. Fleischmann, MD, MPH

A new global risk assessment tool makes its debut, and nontraditional risk factors take a back seat.

Sponsoring Organizations: American College of Cardiology, American Heart Association

Target Population: Primary care providers, cardiologists

Background and Objective
The ACC/AHA Task Force based these recommendations on a comprehensive report from an Expert Work Group convened by the National Heart, Lung, and Blood Institute. The Work Group was asked to (1) develop an approach to quantitative risk assessment for cardiovascular disease that could be used to guide care; and (2) address key questions in risk assessment using systematic review methods.

Key Points
• New, sex-specific Pooled Cohort Equations were developed from multiple large cohorts to predict the 10-year risk for a first atherosclerotic cardiovascular disease event (ASCVD; nonfatal myocardial infarction, coronary heart disease death, or fatal or nonfatal stroke) and are recommended for non-Hispanic blacks and non-Hispanic whites.
• The Pooled Cohort Equations may also be used in other populations, keeping in mind that the validity of the model is not as well established as in non-Hispanic blacks and whites.
• Inputs for the new equations include age, sex, cholesterol (total and HDL) and blood-pressure values, and information on other standard risk factors.
• If, after risk assessment, the treatment decision is still uncertain, assessment of family history, high-sensitivity C-reactive protein, coronary artery calcium, or ankle-brachial index may be considered.
• Routine measurement of carotid intima-media thickness (CIMT) is not recommended for assessment of risk for a first ASCVD event.
• The incremental value of apolipoprotein B, chronic kidney disease, albuminuria, and cardiorespiratory fitness in risk assessment for a first ASCVD event is uncertain.

What’s Changed
• This document supplants guidelines published by the ACC/AHA in 2010 (NEJM JW Cardiol Feb 9 2011). Notable changes from the previous guidelines include the endorsement of a specific model for global risk assessment and a diminution of the role of CIMT measurement.

COMMENT
These guidelines introduce new equations for assessing the 10-year (and also lifetime) risk for a first cardiovascular event. Calculators are available in downloadable form online and are relatively easy to use. Links to the equations are included in treatment algorithms contained in concomitantly released guidelines for management of cholesterol for primary prevention (NEJM JW Gen Med Nov 12 2013).
Management Guidelines for Overweight and Obesity in Adults
— JoAnne M. Foody, MD

A thorough review of the current evidence base informs recommendations regarding dietary, pharmacologic, lifestyle, and surgical interventions.

Sponsoring Organization: American College of Cardiology, American Heart Association, The Obesity Society

Target Population: Primary care providers

Background and Objective
These recommendations stem from the work of an Expert Work Group convened by the National Heart, Lung, and Blood Institute to update the 1998 Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults — The Evidence Report. The Work Group developed five critical questions to address in the revision: (1) What are the benefits of losing weight, and how much weight loss is needed to achieve them? (2) Are established cutpoints for overweight and obesity appropriate across different populations? (3) What is the best diet? (4) What is the best lifestyle intervention? (5) What are the benefits and risks of various bariatric surgical procedures?

Key Points
• All overweight and obese patients should be counseled that losing weight (initial goal, 5%–10% over 6 months) is associated with reductions in LDL, triglycerides, blood glucose, glycedated hemoglobin (HbA1c) and diabetes risk, blood pressure, and medication use, as well as increases in HDL (Class I).

• Measures and cutpoints for identification of patients at increased risk for cardiovascular disease, type 2 diabetes, and all-cause mortality remain unchanged: body-mass index (overweight, ≥25 kg/m²; obese, ≥30 kg/m²) as the first screening step (Class I), and waist circumference (>88 cm in women, >102 cm in men) for further risk assessment (Class IIa).

• Any prescribed diet should reduce caloric intake (Class I) and be balanced with increased energy demands. Of the myriad diets reviewed, none was found to be ideal for weight loss or superior to any of the others.

• The most effective comprehensive lifestyle interventions (combining diet, physical activity, and behavioral strategies) are on-site, high-intensity (>14 sessions in 6 months), and delivered in group or individual sessions by a trained interventionist for 1 year or more (Class I).

• Bariatric surgery may be appropriate in patients with a BMI of ≥40 kg/m² — or ≥35 kg/m² with comorbidity — who have not responded to comprehensive lifestyle therapy (Class IIa). The most effective surgical method depends on many clinical variables (Class IIb); physicians should refer patients considering this option to an experienced bariatric surgeon.

What’s Changed
• Current evidence regarding specific diets, lifestyle interventions, and surgical alternatives is thoroughly reviewed. Evidence for a continuous relationship between BMI and cardiovascular effects has led to some relaxation in the initial weight-loss target (≥5% vs. ≥10%).
Management Guidelines for Overweight and Obesity in Adults

continued from page 7

COMMENT

These guidelines continue to emphasize the importance of moderate weight loss in improving cardiovascular outcomes in overweight or obese patients and underline the reality that there is no magic bullet when it comes to weight loss. In particular, the fact that no specific diet or diet plan is recommended sends an important message — many different strategies can be successful, provided that caloric intake is reduced. The authors recognize that integrated, intensive, yearlong lifestyle programs are the most likely to achieve good results and remind clinicians that bariatric surgery should be reserved for patients with a body-mass index of ≥40 without comorbid conditions.

— Deborah Lehman, MD

Updated recommendations from the AAP for use of seasonal influenza vaccine and antiviral medications in infants and children

Sponsoring Organization: American Academy of Pediatrics (AAP)

Target Population: Pediatric primary care clinicians

Purpose and Objective: Influenza seasons vary in severity, and last year’s season was associated with higher morbidity and mortality than the previous season. These recommendations apply to the upcoming 2013–2014 season.

Recommendations: The AAP recommends annual influenza vaccination for children and adolescents aged ≥6 months with either trivalent or quadrivalent vaccine.

Key Points
• This year’s vaccines contain the following antigens:
  – A/California/7/2009 (H1N1)-like virus
  – A/Texas/50/2012 virus
  – B/Massachusetts/2/2012-like virus
• The number of vaccine doses depends on the child’s age at the time of first dose as well as previous vaccine receipt:
  – Children aged >9 years receive one dose.
  – Children aged 6 months to 9 years require two doses separated by 4 weeks unless they have previously received ≥2 vaccine doses since July 1, 2010.
• Inactivated influenza vaccine (IIV) is available for intramuscular injection in both trivalent and quadrivalent formulations. These vaccines are available in both inactivated form and live attenuated intranasal form and can be administered to children with mild egg allergy (hives). Children with severe egg allergy (anaphylaxis) should be referred to an allergist prior to vaccination.
• Treatment with antiviral agents in children is recommended as follows (dosage and schedule recommendations for infants aged <12 months are provided):
  – Hospitalized children with presumed or proven influenza illness.
  – All children with underlying conditions that predispose them to complication of influenza.
  – Consider treatment for healthy children who may benefit from a shortened duration of symptoms, if the antiviral can be administered within 48 hours of illness.

COMMENT
During the 2012–2013 season, 160 influenza-associated pediatric deaths were reported, and many of these deaths could have been prevented by the vaccine. Influenza virus is unpredictable, and infection in children frequently heralds community infection. Immunization of infants and children early in the season is crucial to reducing illness and deaths each year. Healthcare providers should be fierce advocates for this vaccine.

USPSTF Finalizes Recommendation for Lung Cancer Screening
— Allan S. Brett, MD

*Older people (age range, 55–80) with 30–pack-year smoking histories are eligible.*

**Sponsoring Organization:** U.S. Preventive Services Task Force (USPSTF)

**Target Audience:** Primary care providers

**Background and Objective:** Evidence-based recommendation on screening to prevent lung cancer deaths among people with long smoking histories

**Key Points**
- The USPSTF recommends annual screening with low-dose computed tomography (LDCT) in older adults (age range, 55–80) with 30–pack-year smoking histories who smoke currently or have quit within the past 15 years.
- Screening should be discontinued if a person has not smoked for $\geq 15$ years; screening is not warranted for patients with medical conditions that limit life expectancy.

**What’s Changed**
The previous USPSTF guideline (from 2004) stated that the evidence was insufficient to recommend for or against lung cancer screening by any method.

**COMMENT**
According to the USPSTF grading system, this is a B recommendation (i.e., moderate certainty that annual LD computed tomography provides substantial net benefit). The first draft of this recommendation was made available for public comment in July 2013 and was covered in detail by *NEJM Journal Watch General Medicine* (*NEJM JW Gen Med* Aug 8 2013). This final recommendation essentially is unchanged; it is based largely on the results of the 2011 National Lung Screening Trial (NLST; *NEJM JW Gen Med* Jul 14 2011) and on computer models that extrapolate beyond the NLST study. For example, people were screened annually for only 3 years in the NLST, whereas this guideline recommends annual screening within the 25-year age span.

Because of the harms of screening (i.e., false-positive results and overdiagnosis), the guideline suggests that screening should be done at centers with “high rates of diagnostic accuracy using LDCT, appropriate follow-up protocols for positive results, and clear criteria for doing invasive procedures.” As one editorialist stated, “The USPSTF recommends a structured screening process, not simply a scan.” This aspect of the recommendation will pose a problem for many primary care providers whose patients request screening, because structured programs are not yet available in most places.


Preventing Primary Breast Cancer in Women at Risk
— Jamaluddin Moloo, MD, MPH

*The USPSTF has updated its recommendations on chemoprevention for at-risk women.*

**Sponsoring Organization:** U.S. Preventive Services Task Force (USPSTF)

**Target Audience:** Primary care providers

**Background and Objective**

This recommendation helps guide clinicians on when to implement a risk-modification strategy for asymptomatic women (age, ≥35). Selective estrogen-receptor modulators (SERMs; tamoxifen and raloxifene [Evista]) lower the incidence of invasive breast cancer by 7 to 9 cases per 1000 women during 5 years. Tamoxifen appears to be more effective and has been approved for women older than 35; raloxifene has been approved for postmenopausal women. Aromatase inhibitors have not been approved by the FDA and were not covered in this recommendation; however, in a recent randomized trial, anastrozole was reported to be more effective than SERMs in women at high risk (*NEJM JW Women’s Health* Jan 3 2014).

**Key Points**

- Risk can be estimated by one of several tools, including the Breast Cancer Risk Assessment Tool (http://www.cancer.gov/bcrisktool).
- Clinicians should engage in shared decision making with women who are at excess risk for breast cancer about available medications that might reduce risk. For women who have high breast cancer risk and low risk for adverse medication effects, clinicians should offer to prescribe tamoxifen or raloxifene. Specifically, the task force believes that women with 5-year risk for breast cancer of ≥3% are more likely to benefit from, than to be harmed by, tamoxifen or raloxifene (Grade B recommendation).
- Tamoxifen or raloxifene should not be prescribed for women who are not at excess risk (Grade D recommendation).
- Potential harms of therapy include:
  - Excess risk for venous thromboembolic events (4–7 per 1000 women during 5 years); risk increases with age and is higher with tamoxifen than with raloxifene.
  - Tamoxifen, but not raloxifene, is associated with excess risk for endometrial cancer (4 additional cases per 1000 women who take tamoxifen).

**What’s Changed**

This update reaffirms the 2002 USPSTF statement, which recommends discussions with and treatment for women at high risk for breast cancer and low risk for medication side effects (*NEJM JW Gen Med* Jul 19 2002).

**COMMENT**

Shared decision making will be key to helping our patients determine whether chemoprevention is in their best interest. Most women are not at excess risk for breast cancer and, as noted by the authors, only a subset of at-risk women will benefit from initiation of tamoxifen or raloxifene.

Treating Severe Asthma
— David J. Amrol, MD

A new guideline for diagnosing severe asthma and addressing factors that can make it difficult to treat

Sponsoring Organizations: The European Respiratory Society/American Thoracic Society (ERS/ATS)

Target Population: Primary care providers, pulmonologists, allergists

Background and Objective
Most patients with asthma can be managed effectively with current medications; however, in 5% to 10% of patients, asthma is severe or treatment-resistant. These guidelines update the definition of severe asthma, discuss possible severe-asthma phenotypes, and provide recommendations to guide clinicians in treating children (age, ≥6 years) and adults with severe asthma.

When asthma has been confirmed and comorbidities have been addressed, severe asthma is defined as requiring either high-dose inhaled corticosteroids (ICS) plus a second agent, such as a long-acting β₂-agonist (LABA) bronchodilator for the previous year or oral corticosteroids for ≥50% of the previous year for control (or asthma that remains uncontrolled despite this therapy).

Key Points
• Confirm asthma diagnosis. Evaluate for conditions that can mimic or are associated with asthma (e.g., bronchiolitis, cystic fibrosis, congestive heart failure, allergic bronchopulmonary aspergillosis). Reserve high-resolution computed tomography for atypical presentations.
• Assess patients for comorbidities and contributory factors: e.g., rhinosinusitis and nasal polyps, psychological factors, vocal cord dysfunction, obesity, smoking, obstructive sleep apnea, hyperventilation syndrome, hormonal influences (premenstrual, menstrual, menopausal), thyroid disorders, symptomatic gastroesophageal reflux disease, drugs (aspirin, nonsteroidal anti-inflammatory drugs, β-blockers, angiotensin-converting–enzyme inhibitors).
• Identify characteristics of asthma phenotypes (e.g., allergic, eosinophilic, obesity, early- vs. late-onset). Use sputum eosinophil counts in centers equipped to perform this technique.
• Consider steroid resistance in patients who do not respond to ICS. In addition to high-dose ICS or LABA, consider low-dose theophylline or a long-acting antimuscarinic agent such as tiotropium (Spiriva). In adults, sputum eosinophil counts can be used to guide therapy, but exhaled nitric oxide measurement is not recommended. For allergic asthma, consider a trial of omalizumab (Xolair). Methotrexate and macrolide antibiotics are not recommended. Antifungals should be used only in patients with allergic bronchopulmonary aspergillosis. Bronchial thermoplasty should be performed only in clinical-trial or registry settings because of “very low confidence” in available evidence on its effects in patients with severe asthma.

COMMENT
These guidelines do a good job of discouraging unproven therapies and diagnostic strategies for severe asthma, but evidence-based options are limited for this hard-to-treat population, and sputum eosinophil counts are not available to most clinicians. Patients with severe asthma should be treated in concert with an asthma specialist, with a focus on current guidelines. In patients not controlled on high-dose inhaled corticosteroids and long-acting β₂-agonists, omalizumab and tiotropium are my next treatment options.

Guidelines for Management of Atopic Dermatitis — Part 1: Diagnosis and Assessment
— Craig A. Elmets, MD

Practice changing information for this common and uncomfortable condition

Sponsoring Organization: American Academy of Dermatology

Target Population: Primary care providers, dermatologists

Background and Objective
Atopic dermatitis (AD) is a chronic, inflammatory dermatosis that begins before 5 years of age in 90% of patients. It has a complex pathogenesis in which genetic and environmental factors cause perturbations in the skin barrier and immunological function. A working group of recognized AD experts assembled to develop a four-part evidence-based guideline for AD care. This replaces a 2004 American Academy of Dermatology guideline on the same topic. Part 1 of the new guideline emphasizes clinical questions about the diagnosis and assessment.

Key Points
• Diagnosis AD is based on clinical findings, which include a compatible history, morphology, and distribution of lesions.
• Although serum IgE levels, peripheral blood eosinophil counts, and tissue mast cells are often elevated in AD, they are not reliable indicators; under most circumstances, they are not useful for diagnosis, nor do they have sufficient sensitivity or specificity for monitoring disease course.
• Several sets of diagnostic criteria have been proposed. These are helpful for clinical trials but mostly impractical for routine clinical care.
• Although these markers are not typically employed clinically, high total serum IgE levels and filaggrin null gene mutations portend a worse and more chronic course.
• Objective quality-of-life indexes and disease-impact measures indicate that pruritus is responsible for much of the burden of the disease for patients and families; 60% of AD patients have sleep disturbance, a rate rising to 83% during disease flares.
• Although food allergies are more common in these patients, no evidence supports specific dietary measures as helpful in preventing development of AD.
• House-dust-mite allergy is common in AD patients, but avoidance has not been shown to prevent AD.
• Recent reports suggest an association with attention-deficit/hyperactivity disorder, but the nature of that association has not been determined.
• The two major risk factors for AD are family history of atopic disease and loss-of-function mutations in the filaggrin gene; the protein product of filaggrin is important for epidermal hydration and skin barrier function.
• AD is more common in urban areas and in the black population. At one time, it was thought that AD was more common in higher socioeconomic groups, but more-recent studies have not supported this.

continued on page 14
Guidelines for Management of Atopic Dermatitis — Part 1: Diagnosis and Assessment
continued from page 13

COMMENT

These guidelines provide valuable information that should help practitioners apply the most current evidence on diagnosis, assessment of risk factors, and comorbidities to patient care. For example, it is common practice to use IgE levels and serum eosinophils for diagnosis and assessment of disease activity, although there is little evidence that these parameters are helpful. Dietary measures and house-dust-mite avoidance are often undertaken to block development of atopic dermatitis, but there is no evidence that these practices result in effective prevention.

Multidisciplinary Guidelines for Quality Care in Dementia
— Brandy R. Matthews, MD

A newly devised list of 10 measures is aimed at improving outcomes for dementia patients and caregivers.

Sponsoring Organizations: American Academy of Neurology, American Geriatrics Society, American Psychiatric Association, American Medical Directors Association, and the American Medical Association’s Physician Consortium of Performance Improvement

Target Population: Practitioners involved in the care of patients with dementia

Background and Objective: To determine quality measurements that improve the care of patients with dementia

Key Points
This set of 10 quality measures for dementia care is intended for development and assessment of care for patients with an established dementia diagnosis following appropriate investigations. The measures do not identify specific clinical syndromes or predicted neuropathology.

- The measures include annual assessment of dementia stage, cognition, function, and neuropsychiatric symptoms, including an added measure of depressive symptoms. Additionally, counseling regarding safety, driving, palliative and advanced care, and caregiver issues are identified as areas of focus. The only measure directly related to medical management pertains to neuropsychiatric symptoms. The full measures are available at http://viajwat.ch/1b8z490.
- The guidelines highlight the need for consistent, longitudinal assessments and interventions for both patients and caregivers dealing with dementia diagnoses.
- The authors note that each of the measures, with the exception of palliative care counseling and advanced care planning, has been identified as a source of possible incentive payments to eligible healthcare professionals and that annual cognitive assessment is a clinical quality measure included in the electronic health record Meaningful Use incentive program, supervised by the Centers for Medicare and Medicaid Services.

COMMENT
Undoubtedly, these guidelines will improve the consistency with which dementia care is administered across providers and demographics. Unfortunately, a purely algorithmic approach fails to account for the highly variable pathologies that result in dementia. Binding physician reimbursement to such measures may result in an increase in clinically irrelevant documentation and loss of subspecialty physician time to attend to the individualized needs of patients and families.

Starting at the Very Beginning: Preventing the First Cesarean Delivery
— Allison Bryant, MD, MPH

Two obstetric professional societies collaborate in recommendations aimed at lowering primary cesarean delivery rates.

Sponsoring Organizations: American College of Obstetricians and Gynecologists, Society for Maternal Fetal Medicine

Target Population: Obstetric care providers

Background and Objective
Rising rates of primary and repeat cesarean deliveries have sharpened the focus on policies to prevent the first cesarean delivery. The American College of Obstetricians and Gynecologists and the Society for Maternal Fetal Medicine have released a consensus statement with guidelines for the safe prevention of the first cesarean. The leading indications for primary cesarean are labor dystocia, abnormal fetal heart rate tracings, malpresentation, and multiple gestations (NEJM JW Women’s Health Jul 22 2013).

Key Recommendations

**Labor Dystocia**
- A prolonged latent phase (>20 hours in nulliparous women or >14 hours in multiparous women) is not an indication for cesarean delivery.
- Active labor typically begins at 6 cm of cervical dilation; therefore, cesarean delivery for active phase arrest in the first stage should only be considered when the cervix is >6 cm dilated, membranes are ruptured, and no progress has occurred during >4 hours of adequate uterine contractions.
- Slow but steady progress during the first stage is not an indication for cesarean delivery.
- Active phase arrest during the second stage should not be declared before 3 hours of pushing in nulliparous women and 2 hours of pushing in multiparous women; allowing women to push longer is reasonable if progress is being made and maternal and fetal well-being are assured.
- Operative vaginal delivery, when appropriate, should be encouraged as an alternative to cesarean delivery.

**Abnormal or Indeterminate Fetal Heart Rate Tracings**
- When suspicion of abnormal fetal heart rate tracings arises, fetal scalp stimulation may be used to assess the likelihood of fetal acidemia.
- Amnioinfusion should be considered as an alternative to cesarean delivery in the setting of repetitive variable decelerations.
- Malpresentation
- Clinicians should assess fetal position starting at 36 completed weeks; external cephalic version should be offered for malpresentation if appropriate.

**Multiple Gestations**
- Women having twin pregnancies with a cephalic presenting first fetus should be encouraged to undergo trial of labor.

continued on page 17
Starting at the Very Beginning: Preventing the First Cesarean Delivery
continued from page 16

**Labor Induction**

- Recent data do not support previously held notions that labor induction raises risk for primary cesarean delivery.
- Labor induction before 41 completed weeks’ gestation should be performed based on maternal and fetal indications.
- Cesarean delivery for failed induction should be performed only when active labor is not achieved within 24 hours despite oxytocin administration and membrane rupture for at least 12 to 18 hours.

**COMMENT**

In making these recommendations, the American College of Obstetricians and Gynecologists and the Society for Maternal Fetal Medicine rightly recognize the need for systems-level setting of agendas to encourage appropriate training and cultural shifts to enable these practices. Without this participation from the top — and without creation of clinician incentives for vaginal delivery — these evidence-based recommendations are unlikely to take hold.

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