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TOP GUIDELINE WATCHES | 2013

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PHYSICIAN'S FIRST WATCH

Dear Reader,

The NEJM Journal Watch mission is to help clinicians efficiently understand medical developments in order to improve patient care and foster professional development. 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. Guideline Watch is an important feature, providing coverage of the latest clinical practice guidelines as they are released. We survey a broad range of guidelines to choose those with the most clinical impact, and summarize these often massive works, highlighting key points and identifying what's new.

Clinical guidelines are increasingly important in setting practice standards, and you have told us how much you value our Guideline Watch coverage. Therefore, we've compiled the top NEJM Journal Watch Guideline Watches of 2013 as a thank you for creating an account and becoming part of the 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.

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GUIDELINE WATCH | HYPERTENSION

2013 European Hypertension Guidelines

— JoAnne M. Foody, MD

New recommendations include a near-universal target of 140 mm Hg for systolic blood pressure and selection of drugs for combination therapy based on individual comorbidities.

Sponsoring Organizations: European Society of Hypertension, European Society of Cardiology

Background and Purpose: Although much research has been published since these European guidelines were last revised in 2007, the authors state that arterial hypertension "remains a leading cause of death and cardiovascular morbidity." This update provides important new recommendations for both primary-care and specialist providers.

Key Points

A major development is the recommendation of a single systolic blood pressure (BP) target of 140 mm Hg for virtually all patients. This contrasts with the previously recommended target of 140/90 mm Hg for moderate- and low-risk patients and 130/80 mm Hg for high-risk patients, which the present authors believe are not supported by current data.

Diagnosis and risk assessment

New recommendations include:

- An expanded role for home BP monitoring, ambulatory BP monitoring, or both as an adjunct to office-based BP measurement
- A greater emphasis on assessment of global cardiovascular risk

Treatment

The guidelines also provide new guidance with regard to antihypertensive drugs:

- No treatment in patients with high normal BP (**Class III**)
- No specific preferences of agents for single-drug or combination therapy
- An updated protocol for combination therapy focusing not on a hierarchy of medications, but rather on an individualized approach based on patients' comorbidities
- A particular focus on women during pregnancy with respect to preeclampsia and long-term hypertensive risk and management
- Specific guidance for managing hypertension in patients with diabetes, the young, and the elderly, including a strategy for drug treatment in octogenarians

COMMENT

Given the recent abdication by the National Heart, Lung, and Blood Institute of the publication of practice guidelines, this European document is a welcome resource, providing the most comprehensive, evidence-based recommendations available for the management of hypertension. The challenge, as always, is to ensure that the evidence will be translated into practice.

Mancia G et al. 2013 ESH/ESC Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). **Eur Heart J** *2013 Jun 14; [e-pub ahead of print]. (http://dx.doi.org/10.1093/eurheartj/eht151)*

GUIDELINE WATCH | STEMI

Revised Guidelines: ST-Segment-Elevation Myocardial Infarction

— Howard C. Herrmann, MD

A complete revision of the 2004 guidelines includes a much-needed focus on reducing the time from symptom onset to revascularization.

Sponsoring Organizations: American College of Cardiology Foundation, American Heart Association, American College of Emergency Physicians, Society for Cardiovascular Angiography and Interventions

Background and Purpose: ST-segment-elevation myocardial infarction (STEMI), although declining in incidence, remains an important public health concern, accounting for about one third of the more than 650,000 annual hospital admissions for MI in the U.S. In-hospital and 1-year mortality rates are approximately 5%–6% and 7%–18%, respectively. This guideline is a comprehensive revision of the guidelines published in 2004 (and updated in 2007 and 2009) and incorporates advances in reperfusion, organization of regional systems of care, and secondary-prevention strategies.

Key Points

- These guidelines emphasize the need to reduce the time from symptom onset to reperfusion by focusing on the 1.5–2.0-hour delay before patients seek medical attention. The measure of first medical contact (FMC)-to-device time has been introduced to reflect this focus.
- Transport by emergency medical service (EMS) directly to a percutaneous coronary intervention (PCI)-capable hospital is now the recommended triage strategy, with acquisition of a 12-lead electrocardiogram (ECG) by EMS personnel at the site of FMC, transport by EMS, and a goal FMC-to-device time of ≤90 minutes (Class I).
- With a new emphasis on early activation of the catheterization laboratory by EMS in the field, the ECG diagnosis of MI is critical and has been updated to reflect new data. New or presumably new left bundle-branch block (LBBB) at presentation should not be considered diagnostic of STEMI in isolation, and precordial ST depression in leads V1–V4 should be seen as possible transmural posterior injury. Specific proposed criteria for the ECG diagnosis of STEMI in the setting of LBBB are supplied in the online data supplement.
- Primary PCI remains a Class I recommendation in patients with ischemic symptom onset of less than 12 hours and a Class IIa recommendation in those with ongoing ischemia for 12–24 hours after symptom onset. Drug-eluting stents are considered safe and effective but should be avoided in patients who cannot tolerate or comply with prolonged dual antiplatelet therapy (Class III). Newer P2Y12 inhibitors are now recognized as alternatives to clopidogrel (Class I).
- Therapeutic hypothermia should be initiated as soon as possible in comatose patients with STEMI and cardiac arrest (Class I).
- The recommendation for fibrinolytic therapy in patients with symptom onset of less than 12 hours has been revised to recommend administration when primary PCI cannot be performed within 120 minutes of FMC (Class I).
- The use of intra-aortic balloon pumps (IABPs) is a Class IIa — and alternative left ventricular assist devices, a Class IIb — recommendation for patients with cardiogenic shock after STEMI who do not quickly stabilize with pharmacologic therapy. However, the recent lack of benefit demonstrated in the randomized IABP-SHOCK trial (*N Engl J Med* 2012; 367:1349) may necessitate an early revision of this recommendation.

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Revised Guidelines: ST-Segment-Elevation Myocardial Infarction

continued from page 3

- Unchanged Class I recommendations reflect continued emphasis on routine medical therapies (beta-blockers, angiotensin-converting enzyme inhibitors, statins) and in- and post-hospital care (assessment of ischemic area and risk for sudden cardiac death, cardiac rehabilitation, smoking cessation).

COMMENT

The 2013 guidelines are a comprehensive yet readable summary of pre-, in-, and post-hospital care of patients with ST-segment-elevation myocardial infarction. I am particularly pleased to see the new emphasis on reducing the symptom-to-door time and the enhanced role of emergency medical service providers in achieving this goal.

O'Gara PT et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: A report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. **Circulation** *2012 Dec 17; [e-pub ahead of print]. (http://dx.doi.org/10.1161/CIR.0b013e3182742cf6)*

O'Gara PT et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction. Executive summary: A report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. **Circulation** *2012 Dec 17; [e-pub ahead of print]. (http://dx.doi.org/10.1161/CIR.0b013e3182742c84)*

GUIDELINE WATCH | ESOPHAGEAL CANCER

Endoscopy for Esophageal Cancer Surveillance: Best Practices

— David A. Johnson, MD

The American Society for Gastrointestinal Endoscopy offers a new guideline to promote the appropriate use of upper endoscopy in surveillance of premalignant esophageal diseases.

Endoscopy plays a pivotal role in the early recognition and surveillance of premalignant esophageal diseases. The recent increase in the use of endoscopy for this purpose has spurred the release of new guidelines for its appropriate application (*Ann Intern Med* 2012; 157:808), the most recent of which is from the American Society for Gastrointestinal Endoscopy and is summarized below.

- For Barrett esophagus (BE) with no dysplasia, consider no endoscopic surveillance. If surveillance is done, conduct endoscopy with 4-quadrant biopsies at 2 cm intervals at a 3- to 5-year interval. A 1-year follow-up after initial diagnosis is not recommended.
- For BE with low-grade dysplasia, confirm the diagnosis with an expert pathologist, repeat endoscopy in 6 months to confirm diagnosis and then annually with 4-quadrant biopsies at 1 to 2 cm intervals. Alternatively, consider endoscopic resection or ablation.
- For BE with high-grade dysplasia, confirm the diagnosis with an expert pathologist; consider endoscopic surveillance at 3-month intervals with 4-quadrant biopsies at 1 cm intervals; and consider endoscopic resection and radiofrequency ablation (preceded by endoscopic resection in the case of focal nodular or ulcerated changes), endoscopic ultrasound for local staging, and surgical consultation.
- For confirmed achalasia, endoscopic surveillance is not recommended.
- For history of upper aerodigestive cancer, endoscopic surveillance is not recommended.
- For tylosis, begin endoscopic surveillance at age 30 or at onset of disease, and repeat at 1- to 3-year intervals.
- For caustic injury, begin surveillance endoscopy 10 to 20 years after the injury at 2- to 3-year intervals.

COMMENT

This guideline provides recommendations with weighted quality of supporting evidence. Clinicians should note that in this guideline, a repeat endoscopy at 1 year after diagnosis of BE is no longer recommended. I disagree with the recommendation to consider the use of endoscopic ultrasound for staging of high-grade dysplasia in patients with BE. The staging should be done with endoscopic resection of raised or ulcerated lesions. Endoscopic ultrasound is unnecessary if the endoscopic mucosal resection stages the lesion as intramucosal carcinoma or high-grade dysplasia. Endoscopic ultrasound is overutilized in this population.

Evans JA et al. for the ASGE Standards of Practice Committee. The role of endoscopy in Barrett's esophagus and other premalignant conditions of the esophagus. **Gastrointest Endosc** *2012 Dec; 76:1087. (http://www.giejournal.org/article/S0016-5107%2812%2902574-6/fulltext#sec1)*

GUIDELINE WATCH | GERD

Endoscopy for Gastroesophageal Reflux Disease — Best Practice Advice

— Jamaluddin Moloo, MD, MPH

The American College of Physicians has published new guidelines.

Although many patients with gastroesophageal reflux disease (GERD) obtain relief with acid-suppressive therapy, some have persistent symptoms. Given the low likelihood of esophageal cancer, when is upper endoscopy indicated for patients with chronic GERD symptoms? The American College of Physicians (ACP) issued "Best Practice Advice" on using endoscopy in patients with GERD. Highlights include the following:

1. Upper endoscopy is indicated in men and women who meet any of the following criteria:
   - Heartburn and alarm symptoms, including dysphagia, evidence of blood loss, weight loss, or recurrent vomiting
   - Typical GERD symptoms that persist after 4 to 8 weeks of twice-daily treatment with a proton-pump inhibitor (PPI)
   - Severe esophagitis after a 2-month course of PPI therapy. If Barrett esophagus is not evident, further endoscopy is not indicated.
2. Upper endoscopy may be indicated in patients who meet any of the following criteria:
   - Men older than 50 with >5 years of chronic GERD symptoms plus nocturnal reflux, hiatal hernia, obesity, or tobacco use. Women are excluded from this indication, because their risk for esophageal cancer is much lower — data suggest that risk for esophageal cancer in women with GERD is approximately equivalent to risk for breast cancer in men.
   - Men or women with Barrett esophagus but without dysplasia (endoscopy should be performed every 3 to 5 years). If dysplasia is present, more frequent monitoring is appropriate.

COMMENT

Chronic GERD commonly is managed by primary care physicians. This "Best Practice Advice" from the ACP clarifies use of upper endoscopy in this setting and makes important distinctions between managing men and women.

Shaheen NJ et al. Upper endoscopy for gastroesophageal reflux disease: Best practice advice from the Clinical Guidelines Committee of the American College of Physicians. **Ann Intern Med** *2012 Dec 4; 157:808. (http://annals.org/article.aspx?articleid=1470281)*

GUIDELINE WATCH | IMMUNIZATION

Recommended Adult Immunization Schedule for 2013

— Jamaluddin Moloo, MD, MPH

Highlights of the updated recommendations and a link to the CDC's vaccine resources

The U.S. Advisory Committee on Immunization Practices has issued updated guidelines for adult immunization. Highlights include the following:

- 13-valent pneumococcal conjugate vaccine (PCV13) is recommended for adults (age, ≥19) with immunocompromising conditions (in addition to the pneumococcal polysaccharide vaccine, or PPSV23).
- PPSV23 should be administered to elders (age, ≥65) and readministered to those who received one or two doses before age 65 if at least 5 years have passed.
- Tetanus, diphtheria, and acellular pertussis (Tdap) vaccination is recommended for elders (age, ≥65) and for pregnant women (at 27–36 weeks' gestation) to help protect newborns.
- Live attenuated influenza vaccine (LAIV) for the 2013–2014 season likely will be available only as a quadrivalent vaccine (including 2 influenza A strains, H3N2 and H1N1, and 2 influenza B strains), which is expected to improve coverage beyond that of the previous trivalent vaccine.
- Patients who experience only hives from egg exposure should receive inactivated influenza vaccine (IIV) rather than LAIV. IIV might be available in both the trivalent and quadrivalent forms for 2013–2014.
- Bivalent human papillomavirus vaccine (HPV2) or quadrivalent vaccine (HPV4) are recommended for girls and women, and HPV4 is recommended for boys and men.

COMMENT

Levels of vaccination adherence remain low, and a strong recommendation from providers is associated with better adherence. The CDC website (www.cdc.gov/vaccines) is an excellent resource for all vaccine-related issues.

Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, 2013. **Ann Intern Med** *2013 Feb 5; 158:191. (http://annals.org/article.aspx?articleid=1567229)*

GUIDELINE WATCH | HEPATITIS C

New Screening Recommendations for Hepatitis C Virus Infection

— Jamaluddin Moloo, MD, MPH

The U.S. Preventive Services Task Force recommends one-time screening for all people born between 1945 and 1965.

The prevalence of anti–hepatitis C virus (HCV) antibody in the U.S. is 1.6% and, among patients living with HCV infection, approximately 76% were born between 1945 and 1965. HCV infection is the leading cause of liver transplantation; without treatment, 15% to 40% of HCV-positive patients will develop cirrhosis or cancer. Approximately 50% to 60% of all new cases of HCV infection occur in people with histories of injection drug use; however, using such a narrow metric for screening misses a substantial proportion of HCV-positive people. The U.S. Preventive Services Task Force (USPSTF) has issued new recommendations for HCV screening. Highlights include:

- All people at high-risk (i.e., history of injection-drug use or sex with an injection-drug user, or blood transfusion before 1992) should undergo screening.
- All people born between 1945 and 1965 should undergo one-time screening, regardless of risk factors.
- Anti–HCV antibody testing should be used for initial screening; if antibody testing is positive, polymerase chain reaction testing should be ordered to detect viremia.

The USPSTF found inadequate evidence that counseling of patients with HCV infection prevented transmission of HCV or changed high-risk behaviors.

COMMENT

The recommendation to screen for HCV infection based on birth cohort alone is new, but it parallels recommendations from the CDC (*MMWR Recomm Rep* 2012; 61(RR-4):1) and will require discussion with our middle-aged patients who might not see themselves as being at risk.

Moyer VA et al. Screening for Hepatitis C virus infection in adults: U.S. Preventive Services Task Force recommendation statement. **Ann Intern Med** *2013 Jun 25; [e-pub ahead of print]. (http://annals.org/article.aspx?articleid=1700383)*

GUIDELINE WATCH | PEP

Occupational Postexposure Prophylaxis Guidelines, Updated

— Paul E. Sax, MD

The United States Public Health Service has just issued updated guidelines for management of occupational exposure to HIV.

In August 2013, the U.S. Public Health Service updated its national guidelines for occupational postexposure prophylaxis (PEP). Authored by an expert panel, these guidelines replace the previous version (http://aidsinfo.nih.gov/contentfiles/HealthCareOccupExpoGL.pdf), which dates back to 2005.

Key recommendations include the following:

- Clinicians may use any validated testing options, including point-of-care rapid tests, for evaluating the HIV status of the source patient. Initiation of PEP should not be delayed while waiting for test results.
- There is no need to rule out the "window period" in the source patient unless acute HIV infection is suspected clinically.
- The PEP regimen of choice is tenofovir/FTC plus raltegravir for 4 weeks. Many alternative regimens are listed, including the single-pill tenofovir/FTC/elvitegravir/cobicistat combination. Assuming the absence of serious drug–drug interactions, the latter could be useful for patients who might struggle with a twice-daily regimen.
- Two-drug regimens are no longer recommended for lower-risk exposures — regimens containing three or more antiretrovirals are now routinely recommended for all occupational HIV exposures.
- Expert consultation is recommended in several scenarios — for example, if the exposure report is delayed >72 hours; the source patient is unknown (e.g., stick from a needle in a sharps-disposal container or the laundry); drug-resistant HIV is known or suspected in the source patient; or the exposed person is pregnant, breast-feeding, or seriously ill. However, seeking expert consultation should not delay timely initiation of PEP.
- The follow-up period for exposed individuals can be shortened to 4 months (from 6) if a fourth-generation combination HIV p24 antigen/antibody test is used.

COMMENT

These long-anticipated updated guidelines are excellent and sensible, providing much-needed clarity to an often confusing and anxiety-provoking clinical situation. I hope that they provide motivation for hospital laboratories to update their HIV screening assays to the fourth-generation tests, if they have not already done so. A shorter follow-up would greatly decrease the period of anxiety in individuals who have been exposed.

Kuhar DT et al. Updated US Public Health Service guidelines for the management of occupational exposures to human immunodeficiency virus and recommendations for postexposure prophylaxis. **Infect Control Hosp Epidemiol** *2013 Sep; 34:875. (http://dx.doi.org/10.1086/672271)*

GUIDELINE WATCH | STROKE

Guideline Watch: Acute Stroke Care

— Seemant Chaturvedi, MD

Highlights of American Heart Association/American Stroke Association guidelines updated from 2009

The American Heart Association/American Stroke Association has updated its comprehensive acute stroke care guidelines, which were previously updated in 2009. The guidelines followed the usual AHA/ASA classification of recommendations and levels of evidence. New or modified recommendations worth noting include the following:

- Teleradiology networks are recommended for community hospitals that lack access to neurological expertise. (Class I, Level B)
- Intravenous (IV) thrombolysis is recommended in the setting of early ischemic changes, with the exception of frank hypodensity on computed tomography (CT). (Class I, Level A)
- A noninvasive intracranial vascular study is strongly recommended if either intra-arterial fibrinolysis or mechanical thrombectomy is being considered, but this study should not delay initiation of tissue plasminogen activator (TPA). (Class I, Level A)
- The target door-to-needle time for patients who receive intravenous TPA is <60 minutes. (Class I, Level A)
- IV TPA is recommended in the 3- to 4.5-hour time window — beyond the previously recommended 3-hour window — with additional exclusion criteria (age >80, use of oral anticoagulants, baseline NIH Stroke Scale score >25, imaging evidence of ischemic injury involving more than one third of the middle cerebral artery territory, or a history of both stroke and diabetes mellitus). (Class I, Level B)
- Use of IV TPA may be considered for patients with mild stroke or those with major surgery in the last 3 months, after weighing the risks and benefits. (Class IIb, Level C)
- Use of IV TPA is not recommended for patients taking novel anticoagulants unless clotting tests are normal or the patient has not taken medication for >2 days (with normal renal function). (Class III, Level C)
- When mechanical thrombectomy is considered, stent retrievers are preferred to coil retrievers. (Class I, Level A) The ability of mechanical thrombectomy devices to improve patient outcomes has not yet been established.
- Rescue intra-arterial thrombolysis or thrombectomy may be reasonable in patients who have failed IV thrombolysis, but additional randomized trial data are needed. (Class IIb, Level B)

COMMENT

Important themes of these updated guidelines are the "urgency of time" in patients who qualify for IV thrombolysis with TPA and reinforcement of the use of TPA for select patients in the 3- to 4.5-hour window. In addition, the evidence for mechanical thrombectomy in acute stroke for improving patient outcomes is still unsatisfactory.

Jauch EC et al. Guidelines for the early management of patients with acute ischemic stroke: A guideline for healthcare professionals from the American Heart Association/American Stroke Association. **Stroke** *2013 Jan 31; [e-pub ahead of print]. (http://dx.doi.org/10.1161/STR.0b013e318284056a)*

GUIDELINE WATCH | ANTITHROMBOTIC DRUGS

AAN Guidelines on Periprocedural Management of Antithrombotic Drugs

— Hooman Kamel, MD

These useful guidelines are a good reminder that patients with cerebrovascular disease should be thoroughly counseled about periprocedural risks.

Neurologists frequently are asked to make recommendations about whether to continue or stop antithrombotic drugs in patients with cerebrovascular disease who are about to undergo invasive procedures. Given the variety of antithrombotic drugs and widely varying levels of patient and procedural risk, such decisions can be difficult. Recently issued evidence-based guidelines from the American Academy of Neurology promise to make these decisions easier, or at least less arbitrary.

After surveying the literature through August 2011, the guideline authors found few high-quality studies to inform decisions about periprocedural antithrombotic drug management in patients with cerebrovascular disease. Their recommendations, based on the available evidence, can be summed as follows:

- Aspirin and warfarin should be continued during dental procedures (Level A).
- Continuing these drugs may be safe during several other types of relatively minor procedures (Levels B and C).
- Little evidence exists for or against periprocedural heparin bridging in patients whose warfarin is being held (Level U).
- Heparin bridging appears to increase bleeding risk compared with simply holding warfarin (Level B).
- Patients should be counseled that stopping aspirin or warfarin, particularly for ≥7 days, is probably associated with an increased risk for stroke (Level B).

COMMENT

These guidelines highlight the lack of good evidence regarding optimal strategies for periprocedural antithrombotic medication use, especially in patients with existing cerebrovascular disease. Still, they include many useful recommendations, based on a synthesis of the available evidence that will help neurologists give consistent advice to patients. The guidelines also remind neurologists to ensure that their cerebrovascular patients are adequately counseled about the periprocedural risks for stroke and bleeding before giving informed consent for any invasive procedure. They do not address the importance of multidisciplinary discussions when determining the necessity of each procedure in this high-risk patient population.

Armstrong MJ et al. Summary of evidence-based guideline: Periprocedural management of antithrombotic medications in patients with ischemic cerebrovascular disease. Report of the Guideline Development Subcommittee of the American Academy of Neurology. **Neurology** *2013 May 28; 80:2065. (http://dx.doi.org/10.1212/WNL.0b013e318294b32d)*

GUIDELINE WATCH | PSA SCREENING

New PSA Screening Guideline from the American Urological Association

— Allan S. Brett, MD

The target range for "routine" prostate-specific antigen screening has been narrowed to ages 55 to 69.

The American Urological Association (AUA) has published a new guideline on prostate-specific antigen (PSA) screening. The guideline has five summary recommendations:

- No screening for men younger than 40.
- No "routine" screening for men aged 40 to 54 and at average risk; for those in this age group who are at higher risk (e.g., black men, those with family histories of prostate cancer), individualize screening decisions.
- For men aged 55 to 69, engage in shared decision making and proceed based on the man's values and preferences.
- No "routine" screening for men older than 70 or men with life expectancy shorter than 15 years.
- When screening, consider biennial instead of annual screening.

COMMENT

This guideline supplants a 2009 AUA "Best Practice Statement," which stated that screening "... should be offered to healthy, well-informed men 40 years of age or older" (*J Urol* 2009; 182:2232). The new guideline narrows the age range for "routine" screening to 55 to 69, because that was the core age group in the European screening trial (*N Engl J Med* 2012; 366:981). Still, the guideline makes for some frustrating reading: Phrases such as "no *routine* screening" (my italics) are ambiguous, and many clinicians find difficulty in navigating the interplay between a patient's "values and preferences" and the complexity of potential benefits and harms of screening.

Many media reports publicized the new guideline as evidence that urologists are backing off from aggressive PSA screening. However, some urologists have criticized the AUA for not presenting screening more favorably. And finally, this guideline differs substantially from that of the U.S. Preventive Services Task Force, which recommends against PSA screening for all age groups (*Ann Intern Med* 2012; 57:900).

Carter HB et al. Early detection of prostate cancer: AUA guideline. **J Urol** *2013 May 6; [e-pub ahead of print]. (http://dx.doi.org/10.1016/j.juro.2013.04.119)*

GUIDELINE WATCH | LUNG CANCER SCREENING

2013 ACCP Guideline on Screening for Lung Cancer

— Allan S. Brett, MD

The American College of Chest Physicians recommends screening with low-dose computed tomography — but only in a carefully defined population.

The American College of Chest Physicians has published a new clinical guideline on screening for lung cancer. The key recommendation is:

> *"For smokers and former smokers who are age 55 to 74 and who have smoked for 30 pack-years or more and either continue to smoke or have quit within the past 15 years, we suggest that annual screening with LDCT [low-dose computed tomography] should be offered ... but only in settings that can deliver the comprehensive care provided to NLST [National Lung Screening Trial] participants."*

This cautious language reflects several points that the guideline addresses in detail. First, because the NLST is the only randomized trial that has shown a mortality benefit (*N Engl J Med* 2011; 365:395), the authors believe that screening should be limited to people whose age and smoking histories meet the NLST eligibility criteria.

Second, the authors acknowledge the problem of false positives — i.e., CT scans can identify abnormalities that generate additional tests and procedures in people who don't have lung cancer (*N Engl J Med* 2013; 368:1980). Further evaluation of patients with false-positive scans is costly, potentially anxiety-provoking, and potentially harmful if invasive tests are performed.

Third, the authors are concerned about screening that is done haphazardly in community practice settings. Many patients with benign nodules can be followed without undergoing biopsies, and very few patients with benign nodules should need surgery to establish benignity. When diagnostic surgery is required, video-assisted thoracic surgery is preferable. The authors believe that screening should be done only in centers where expert multidisciplinary management and follow-up are available.

Detterbeck FC et al. Screening for lung cancer: Diagnosis and management of lung cancer, 3rd ed. American College of Chest Physicians evidence-based clinical practice guidelines. **Chest** *2013 May; 143:suppl:e78S. (http://dx.doi.org/10.1378/chest.12-2350)*

GUIDELINE WATCH | CERVICAL CANCER

New Guidance for Management of Women with Abnormal Cervical Cancer Screening Results

— Andrew M. Kaunitz, MD

The American Society for Colposcopy and Cervical Pathology has issued updated recommendations in the form of 19 algorithms.

In 2012, the American Cancer Society, American Society for Clinical Pathology, and American Society for Colposcopy and Cervical Pathology (ASCCP) issued new guidelines for cervical cancer screening (*Ann Intern Med* 2012; 156:880). Now, the ASCCP has updated its recommendations (first published in 2006) for managing women with abnormal cervical cancer screening tests and cancer precursors. This guidance was developed based on a literature review, input from 23 professional societies, and clinical experience with 1.4 million women seen at Kaiser Permanente Northern California. The 19 algorithms cover clinical scenarios ranging from unsatisfactory cytology to various grades of squamous and glandular intraepithelial neoplasia. They are timely, given that co-testing (cytology plus assessment for high-risk human papillomavirus [HPV]) has become increasingly common.

One notable algorithm concerns management of women aged 21 to 24 with cytology indicating either atypical squamous cells of undetermined significance (ASCUS) or low-grade squamous intraepithelial lesion (LSIL). The 2006 guidelines recommended colposcopy with cervical biopsy for women with ASCUS plus positive reflex HPV test results, as well as for those with LSIL. The current guidelines do not recommend initial colposcopy for women in this age range. Instead, when HPV reflex testing is negative in women with ASCUS cytology, routine screening should resume. If the initial screen reveals ASCUS with positive HPV — or LSIL — repeat cytology is recommended at 12 months. The results of this 12-month cytology then determine whether colposcopy or repeat cytology at 12 months is indicated.

A second noteworthy algorithm relates to management of women with LSIL (for whom colposcopy had been recommended under the 2006 guidance). If LSIL is found during the course of co-testing and the HPV result is negative, repeat co-testing in 12 months is now the preferred action. In contrast, if LSIL is not accompanied by an HPV test — or if such testing is positive — colposcopy continues to be recommended.

COMMENT

Many clinicians may find the 19 algorithms too complicated to memorize. I plan to keep a copy handy whenever I see patients; other clinicians who evaluate women with abnormal cervical cancer screening results might choose to do the same.

Massad LS et al. 2012 updated consensus guidelines for the management of abnormal cervical cancer screening tests and cancer precursors. **J Low Genit Tract Dis** *2013 Apr; 17:S1. (http://dx.doi.org/10.1097/LGT.0b013e318287d329)*

Massad LS et al. 2012 updated consensus guidelines for the management of abnormal cervical cancer screening tests and cancer precursors. **Obstet Gynecol** *2013 Apr; 121:829. (http://dx.doi.org/10.1097/AOG.0b013e3182883a34)*

GUIDELINE WATCH | OTITIS MEDIA

The Diagnosis and Management of Acute Otitis Media

— Robert S. Baltimore, MD

This revised, evidence-based guideline for managing uncomplicated acute otitis media in children aged 6 months through 12 years strengthens the wait-and-see option and increases the emphasis on prevention.

Target Population: Family practitioners, pediatricians, emergency department physicians, physician assistants, nurse practitioners, otolaryngologists

Sponsoring Organizations: American Academy of Pediatrics and American Academy of Family Physicians

Type: Evidence-based clinical practice guideline with grading of evidence

Background: Otitis media is the most common condition for which antibiotics are prescribed for children in the U.S. This document — a revision of the 2004 acute otitis media (AOM) guideline (*Pediatrics* 2004; 113:1451) — is the product of a multidisciplinary committee's review of new AOM-related literature published since the initial evidence report of 2000. It provides recommendations to primary care clinicians for the management of uncomplicated AOM (AOM without otorrhea) in children aged 6 months through 12 years of age, focusing primarily on the appropriate diagnosis and initial treatment of this condition.

Key Points

- AOM should be diagnosed in children presenting with moderate-to-severe bulging of the tympanic membrane (TM) or new onset of otorrhea not due to acute otitis externa, and in those with mild bulging of the TM and recent onset of otalgia or intense erythema of the TM. It should not be diagnosed in children without middle-ear effusion, based on pneumatic otoscopy or tympanometry.
- When pain is present, treatment to reduce pain should be recommended.
- Antibiotic therapy should be prescribed for AOM (bilateral or unilateral) in children aged ≥6 months with severe signs or symptoms (i.e., moderate or severe otalgia, otalgia lasting ≥48 hours, or temperature ≥39°C [102.2°F]), and for bilateral AOM in children aged 6 through 23 months without severe signs or symptoms.
- For nonsevere unilateral AOM in children aged 6 to 23 months (and nonsevere unilateral or bilateral AOM in children aged ≥24 months), either antibiotic therapy or observation with close follow-up is appropriate. Antibiotic therapy should be initiated if symptoms worsen or fail to improve within 48 to 72 hours after onset.
- When a decision to treat with antibiotics has been made and the child has not received amoxicillin in the past 30 days, does not have concurrent purulent conjunctivitis, and is not allergic to penicillin, amoxicillin should be prescribed. If the child received this agent in the preceding 30 days, has concurrent purulent conjunctivitis, or has a history of recurrent AOM unresponsive to amoxicillin, an antibiotic with additional β-lactamase coverage should be used.
- If symptoms have worsened or failed to respond to the initial antibiotic treatment within 48 to 72 hours, the child should be reassessed to determine whether a change in therapy is needed.
- Antibiotics should not be prescribed prophylactically to reduce the frequency of AOM episodes in children with recurrent AOM.
- Tympanostomy tubes may be offered for recurrent AOM (i.e., 3 episodes in 6 months or 4 episodes in 1 year, with 1 episode in the preceding 6 months).

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The Diagnosis and Management of Acute Otitis Media

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- For prevention of AOM, pneumococcal conjugate vaccine and annual influenza vaccine should be recommended. In addition, exclusive breastfeeding for ≥6 months and avoidance of tobacco-smoke exposure should be encouraged.

COMMENT

Most of these recommendations were part of the 2004 document but are now reinforced by additional evidence from the literature. The new guideline strengthens the wait-and-see option, which is still controversial, and increases the emphasis on prevention.

Lieberthal AS et al. Clinical practice guideline: The diagnosis and management of acute otitis media. **Pediatrics** *2013 Mar 1; 131:e964. (http://dx.doi.org/10.1542/peds.2012-3488)*

GUIDELINE WATCH | PEDIATRIC DIABETES

Management Guidelines for Childhood Type 2 Diabetes Mellitus

— Cornelius W. Van Niel, MD

Guidelines for primary care management, including use of insulin, metformin, finger-stick blood glucose and HbA_{1c} monitoring, and lifestyle modification

Sponsoring Organization: The American Academy of Pediatrics (AAP) Subcommittee on Management of T2DM in Children and Adolescents

Target Population: Primary care clinicians

Key Points

The prevalence of type 2 diabetes mellitus (T2DM) in youth is increasing, but the evidence base informing management in this population is not robust. Several professional groups collaborated to review existing evidence (from 1990–2008), including extrapolations from studies of T2DM in adults and T1DM in children, to develop an evidence-based clinical practice guideline for management of newly diagnosed T2DM in 10- to 18-year-olds. The guideline's key action statements for clinicians are:

- Initiate insulin therapy in children and adolescents with diabetes and ketosis, a clinical picture that is not clearly T1DM or T2DM (e.g., obese children presenting with ketosis), random blood glucose ≥250 mg/dL, or HbA_{1c} >9% (strong recommendation). Up to 25% of adolescents with T2DM present with ketoacidosis.
- Initiate metformin therapy with a program of lifestyle modification in all other children and adolescents with newly diagnosed T2DM (strong recommendation). Metformin is the only oral medication approved for use in patients <18 years with T2DM; it carries a low risk for hypoglycemia and can aid in weight control. Nutrition and physical activity changes alone have a low success rate (10%). In one randomized controlled trial, metformin was associated with better outcomes than lifestyle changes.
- Monitor HbA_{1c} concentrations every 3 months (optional recommendation, based on expert opinion and adult T2DM and child T1DM studies), with a target concentration <7% to minimize risk for microvascular complications. Check HbA_{1c} every 6 months in stable patients.
- Advise patients to monitor finger-stick blood glucose levels when taking insulin, initiating or changing treatment, not meeting goals, or sick with an intercurrent illness (optional recommendation, based on consensus). The number of daily checks depends on the insulin regimen.
- Incorporate nutrition counseling based on the Academy of Nutrition and Dietetics' pediatric nutrition practice guidelines (http://andevidencelibrary.com/topic.cfm?cat=2721), including a nutrition "prescription" with decreased fat and sugary drinks and increased fruits and vegetables (optional recommendation, based on expert opinion). Recommended caloric restrictions are 900–1200 calories/day for children ages 6–12 years and not less than 1200 calories/day for adolescents aged 13–18 years.
- Encourage moderate-to-vigorous physical activity for at least 60 minutes per day and less than 2 hours of nonacademic screen time per day (optional recommendation, based on expert opinion and evidence from studies in obese children). Provide a written prescription for physical activity with specific duration, intensity, and frequency, taking into account physical abilities, patient preferences, and family circumstances.

Pediatric T2DM management should embrace family-centered care. Patient preferences play a "dominant" role in nutrition and physical activity management. When HbA_{1c} and finger-stick blood glucose goals are not met, intensification of therapy is indicated (increased blood glucose monitoring, medication adjustment, stronger focus on lifestyle changes, more frequent primary care visits, and referral to specialists).

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Management Guidelines for Childhood Type 2 Diabetes Mellitus

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Referral to specialists (e.g., endocrinologists, dieticians) is recommended whenever insulin therapy is initiated, treatment goals are not met, or the primary care clinician seeks support from consultants with more expertise. Screening and management tools for comorbid conditions (e.g., hypertension, dyslipidemia, depression, nephropathy) were adapted from other guidelines and included in the accompanying technical report (http://dx.doi.org/10.1542/peds.2012-3496).

COMMENT

This guideline assists primary care clinicians unfamiliar with the management of this previously uncommon condition in children. Management of pediatric T2DM is rapidly changing with the potential introduction of other oral medication classes (some with serious known side effects in adults) to adolescents with T2DM. Early initiation of metformin, regular HbA_{1c} monitoring, and written "prescriptions" and referrals to help encourage lifestyle modification are key recommendations.

Copeland KC et al. Management of newly diagnosed type 2 diabetes mellitus (T2DM) in children and adolescents. **Pediatrics** *2013 Jan 28; [e-pub ahead of print]. (http://dx.doi.org/10.1542/peds.2012-3494)*

GUIDELINE WATCH | ACNE

Treatment of Pediatric Acne

— Alain Joffe, MD, MPH, FAAP, with additional comment by Mary Wu Chang, MD

The first evidence-based guideline for management of pediatric acne.

Sponsoring Organization: The American Acne and Rosacea Society, reviewed and endorsed by the American Academy of Pediatrics (AAP)

Purpose and Objective: An evidenced-based clinical guideline for management of pediatric acne

Key Points

- **Classification:** No standard exists for grading acne, and severity scales often overemphasize the presence of inflammatory lesions, but severity can be broadly categorized as mild, moderate, or severe on the basis of number, type, and severity of lesions. Acne can also be categorized as predominately comedonal, inflammatory, or mixed. Presence or absence of scarring, postinflammatory hyperpigmentation, or erythema should be assessed to both guide selection of treatment and monitor improvement.
- **Preadolescent acne** (age range, 7–12 years): May precede other signs of pubertal maturation. Evaluation with history and physical examination is usually sufficient.
- **Pathogenesis:** Involves the following four factors:
  1. *Sebaceous hyperplasia influenced by increasing androgen levels*
  2. *Alterations in follicular growth and differentiation*
  3. *Colonization of the follicle with Propionibacterium acnes*
  4. *Immune response and inflammation*
- **Over-the-counter treatment:** Based on limited data, products containing salicylic acid, sulfur, sodium sulfacetamide, and resorcinol are somewhat effective. Salicylic acid is less effective than benzoyl peroxide (BP). Some evidence suggests that higher BP concentrations (range, 2.5%–10%) are not more effective but are more irritating; the exception may be on the back, where higher concentrations or prolonged contact improve efficacy.
- **Retinoids:** By normalizing desquamation of follicular epithelium, retinoids prevent formation of new microcomedones and promote clearing of existing lesions. Some retinoids also have direct anti-inflammatory activity. Retinoids are available as creams, gels, solutions, and lotions. To minimize the common side effects of burning, stinging, dryness, and scaling, start with the lowest strength in each preparation. Patients with sensitive skin should start with thrice weekly applications. Use of a noncomedogenic moisturizer and moisturizers with sunscreens may further enhance tolerability.
- **Antibiotic treatment:** Topical antibiotics are not recommended as monotherapy because of slow onset of action and emergence of antibiotic resistance. Oral antibiotics are appropriate for moderate to severe inflammatory acne at any age. Extended-release minocycline (1 mg/kg/day) is the only FDA-approved oral antibiotic for acne treatment. Second-generation tetracyclines (doxycycline, minocycline) are sometimes preferred to tetracycline because of fewer problems with absorption and less frequent dosing, but they should not be used in children <8 years. Erythromycin, azithromycin, and trimethoprim/sulfamethoxazole can be used cautiously in tetracycline-allergic children.

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Treatment of Pediatric Acne

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- **Facial cleansing:** Twice daily washing with a gentle, soap-free, pH-balanced cleanser is recommended. Antibacterial washes other than BP are not effective. Facial toners can decrease oiliness and remove makeup or traces of dirt but can be irritating if overused. Concealing, oil-free, noncomedogenic makeup does not worsen acne.

Recommended Prescription Treatment Regimens

- **Mild acne** (predominately comedonal or mixed comedonal/inflammatory): Start with BP *or* topical retinoid *or* (Graphic) topical combination therapy. Topical dapsone can be considered as single therapy or in place of topical antibiotic. If response is inadequate after adherence is confirmed, add BP or retinoid; change topical retinoid concentration, type, and/or formulation; *or* change topical combination therapy.
- **Moderate acne** (more inflammatory lesions): Start with (Graphic) topical combination therapy *or* oral antibiotic plus topical retinoid and BP *or* topical retinoid, antibiotic, and BP. Topical dapsone can be considered in place of topical antibiotic. If response is inadequate after adherence is confirmed, consider dermatology referral, change topical retinoid concentration, type, and/or formulation, change topical combination therapy, *and/or* add or change oral antibiotic (consider hormonal therapy for girls) *or* consider oral isotretinoin.
- **Severe acne:** Use combination therapy (oral antibiotic plus topical retinoid plus BP with or without topical antibiotic). If response is inadequate, consider dermatology referral or changing oral antibiotic, and consider oral isotretinoin. Consider hormonal therapy for girls.

COMMENT — PEDIATRICS AND ADOLESCENT MEDICINE

These guidelines provide a general roadmap for treatment of pediatric acne. Treatment considerations are also affected by previous treatment history, cost and insurance coverage, and vehicle preference (cream, gel, etc.). Fixed-dose combination topical therapies simplify treatment regimens, and hormonal contraceptives may be particularly appropriate for young women with dysmenorrhea or who are sexually active. The guideline includes concise flowcharts detailing treatment regimens according to acne severity.

— Alain Joffe, MD, MPH, FAAP

ADDITIONAL COMMENT — DERMATOLOGY

The AAP report also provides a concise review of oral antibiotic complications and controversies in isotretinoin use. In general, the recommendations are consistent with the 2012 European evidence-based guidelines for the treatment of acne (*J Eur Acad Dermatol Venereol* 2012 Feb; 26 Suppl 1:1). The European guidelines state the following three objectives: reduction of serious sequelae and scarring, promotion of patient adherence, and reduction of antibiotic resistance. Although not exclusive for pediatrics, the European guidelines recommend that treatment strategy be influenced by the presence of scarring and other poor prognostic indicators (including family history, truncal acne, and past infantile acne) and dictated by acne morphologic type and severity (comedonal, mild to moderate papulopustular, severe papulopustular/moderate nodular, or severe nodular). One variation from the AAP recommendations is that tropical azelaic acid is included as an option for comedonal and moderate papulopustular acne.

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Treatment of Pediatric Acne

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My take home messages for acne management include the following:

- Drug resistance to cycline antibiotics is increasing. Oral or topical antibiotics are often necessary in the treatment of moderate to severe acne, but chronic use for years is not ideal, and monotherapy with antibiotics (topical or oral) is never appropriate.
- Every acne patient should be on a topical agent. Benzoyl peroxide has both antimicrobial and comedolytic effects and also helps minimize drug resistance. Topical retinoids are crucial in "unclogging" the follicles, preventing acne, and improving scars. Tolerability is a major limiting factor in topical retinoid use. Starting treatment with gradual use (twice weekly, then every other night) is helpful.
- In girls and women with chronic resistant acne, hormonal management (usually oral contraceptives; spironolactone is less well studied) may be appropriate and can sometimes enable cessation of oral antibiotics and sometimes prevent the need for isotretinoin.
- Nutrition and diet can be valuable in acne therapy and sometimes are the missing links in resistant cases.
- Lastly, acne treatment is slow, and success depends on adherence. Adherence depends greatly on patient education.

— *Mary Wu Chang, MD*

Eichenfield LF et al. Evidence-based recommendations for the diagnosis and treatment of pediatric acne. **Pediatrics** *2013 May; 131:S163. (http://dx.doi.org/10.1542/peds.2013-0490B)*

GUIDELINE WATCH | MEASLES, MUMPS, RUBELLA

New Recommendations for Prevention of Measles, Mumps, and Rubella

— Deborah Lehman, MD

Revisions address evidence of immunity, immunizations for HIV-infected children, and postexposure prophylaxis in infants.

Sponsoring Organization: The CDC has published updated recommendations for the prevention of measles, mumps, and rubella (MMR) adopted by the Advisory Committee on Immunization Practices (ACIP).

Target Population: Intended as baseline guidance for scheduling of vaccinations for these conditions and considerations for special populations.

Background: Vaccine programs for all three viral infections have been successful since their introduction in the 1960s and 1970s. But recent outbreaks of measles and mumps in the U.S. and rubella and congenital rubella syndrome (CRS) abroad serve as reminders of the importance of maintaining high immunization rates. For example, in Japan, the number of rubella cases has doubled since 2012, with nearly 5500 cases during the first 5 months of 2013, and 10 cases of CRS reported since October 2012. Most cases were in men (77%) and most were not immunized, reflecting a targeted immunization program for adolescent girls. Increases are likely related to a 1995 change in Japan's vaccine policy from mandatory to recommended.

What's Changed: The ACIP updated recommendations include the following revisions:

- Physician-diagnosed illness is no longer acceptable evidence of immunity for all three viruses.
- HIV-infected children aged 12 months and older who are not severely immunocompromised should be immunized.
- Intramuscular immune globulin is recommended within 72 hours after exposure for infants younger than 6 months, immunocompromised patients, and pregnant women. Infants aged 6 to 11 months can receive MMR vaccine as postexposure prophylaxis, but these infants will need to be reimmunized with the vaccine.

COMMENT

The new recommendations are not dramatically different from previously published guidelines. Recent outbreaks of measles in unvaccinated populations, mumps among college students, and rubella and congenital rubella syndrome in Japan, reinforce the need to maintain high vaccination rates to eliminate disease transmission. High rates of measles in Western Europe remind us that this highly contagious disease is only an airplane flight away. Close attention to vaccine coverage as well as timely postexposure prophylaxis for those at risk is critical.

Centers for Disease Control and Prevention. Prevention of measles, rubella, congenital rubella syndrome and mumps, 2013: Summary recommendations of the advisory committee on immunization practices (ACIP). **MMWR Recomm Rep** *2013 Jun 14; 62:1. (http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf)*

Centers for Disease Control and Prevention. Nationwide rubella epidemic—Japan, 2013. **MMWR Morb Mortal Wkly Rep** *2013 Jun 14; 62:457. (http://www.cdc.gov/mmwr/pdf/wk/mm6223.pdf)*

GUIDELINE WATCH | CONTRACEPTION

Contraceptive Practice Recommendations Tailored for Use in the U.S.

— Eleanor Bimla Schwarz, MD, MS

The CDC has adapted the WHO's Selected Practice Recommendations for Contraceptive Use.

Despite recent advances in contraceptive technology, high unintended pregnancy rates remain problematic in the U.S. To help promote effective use of contraception, the CDC has adapted the WHO's Selected Practice Recommendations for Contraceptive Use for U.S. clinical settings. These revised guidelines arise from 30 systematic reviews (*Contraception* 2013; 87:701) as well as collective input from reproductive health experts about how best to translate this evidence into clinical recommendations.

The CDC's Selected Practice Recommendations offer evidence-based clinical guidance on a range of contraceptive management issues including initiation of contraception, necessary follow-up, and problems such as unscheduled bleeding and missed pills. Highlights of the guidelines include:

- No laboratory testing is needed prior to initiating contraception.
- No physical examination beyond a blood pressure check is needed prior to initiation of combined hormonal contraception.
- Screening for cervical cancer is not necessary before placement of an intrauterine device (IUD).
- Removing a woman's IUD is not necessary if she develops pelvic inflammatory disease; treatment with antibiotics is sufficient.

The CDC also identified significant research gaps and has committed to regularly updating the Selected Practice Recommendations to ensure that guidance remains current.

COMMENT

The Selected Practice Recommendations, like the CDC's Medical Eligibility Criteria (http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm) for contraceptive use, verge on being encyclopedic. Several tools designed to make this information easily accessible in clinical settings have been developed, including a pocket-sized reference and an iPhone app. These resources, combined with the Affordable Care Act's mission to remove cost as a barrier to contraceptive choice, offer new hope for increased use of highly effective reversible contraceptives (i.e., intrauterine and subdermal methods) and meaningful reductions in rates of undesired pregnancy and induced abortion.

Curtis KM et al. Adaptation of the World Health Organization's selected practice recommendations for contraceptive use for the United States. **Contraception** *2013 May; 87:513. (http://dx.doi.org/10.1016/j.contraception.2012.08.024)*

Folger SG et al. Evidence-based guidance on selected practice recommendations for contraceptive use: Identification of research gaps. **Contraception** *2013 May; 87:517. (http://dx.doi.org/10.1016/j.contraception.2012.08.003)*

GUIDELINE WATCH | ELECTIVE CESAREAN DELIVERY

Maternal Request for Cesarean Delivery: Balancing the Outcomes

— Allison Bryant, MD, MPH

ACOG recommends planned vaginal delivery for most women who do not have specified indications.

The U.S. cesarean delivery rate continues to rise, accounting for nearly one third of all births in 2009. Although elective cesarean deliveries (i.e., those without specified indications) represent <3% of all U.S. births, maternal requests for this delivery mode have become more common. In 2006, an NIH consensus panel concluded that available data were insufficient to allow recommendations for or against planned vaginal delivery or cesarean delivery on maternal request (CDMR) as optimal modes. Now, the American College of Obstetricians and Gynecologists (ACOG) has issued an updated Committee Opinion on this issue. Key points are as follows:

- Planned vaginal delivery is associated with short-term maternal benefits such as shorter hospital stays and lower rates of infection and anesthesia-related complications.
- Risks for postpartum hemorrhage and short-term surgical complications are lower with CDMR, but the likelihood of complications such as uterine rupture, placenta previa, and placenta accreta, as well as the need for hysterectomy, increases with subsequent pregnancies. For example, the cumulative likelihood of obstetric morbidity by a fourth pregnancy has been estimated at 10% among women who chose CDMR for the first birth, compared with 4% among those who attempted vaginal delivery.
- CDMR before 39 weeks' gestation carries increased risk for neonatal respiratory morbidity and complications of prematurity, although the risk for brachial plexus injury is lower with CDMR than with vaginal delivery.
- Evidence for differences in rates of postpartum depression, pelvic organ prolapse, subsequent stillbirth, and maternal death is inconclusive.

Based on this evidence, ACOG recommends vaginal delivery as a safe option in the absence of maternal or fetal indications for cesarean delivery. CDMR should not be performed before 39 weeks' gestation, and fear of pain during labor should not be the sole motivation for cesarean delivery; in such instances, counseling, increased support, and effective analgesia should be offered.

COMMENT

Curbing the rapid rise in cesarean rates will require incremental approaches to the problem. Although cesarean delivery on maternal request accounts for a small proportion of all U.S. deliveries, a data-driven campaign guiding the recommendations of clinicians and the decisions of women and their families is critical. Whereas this Committee Opinion leaves room for CDMR in well-counseled women, its firm recommendations in favor of planned vaginal delivery (particularly for women who wish to have several children) and against CDMR prior to 39 weeks' gestation should curtail morbidity and mortality in women and children across their lifespans.

Committee on Obstetric Practice. ACOG Committee Opinion 559: Cesarean delivery on maternal request. **Obstet Gynecol** *2013 Apr; 121:904. (http://dx.doi.org/10.1097/01.AOG.0000428647.67925.d3)*

GUIDELINE WATCH | CONTRIBUTING EDITORS

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JoAnne M. Foody, MD, is Director of the Cardiovascular Wellness Center at Brigham and Women's Hospital in Boston. Dr. Foody has an active role in inpatient care and mentors residents and fellows, with emphasis on strengthening cardiac disease prevention and rehabilitation. Her research has focused on identifying and fostering greater use of clinical strategies that prevent adverse cardiovascular events in people with and without coronary artery disease. Dr. Foody also has had leadership roles on the National AMI and National Heart Failure projects of the Centers for Medicare & Medicaid Services. She has been writing for *NEJM Journal Watch Cardiology* since 2000.

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Contributing Editors

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Eleanor Bimla Schwarz, MD, MS, Associate Professor in the Departments of Medicine, Epidemiology, and Obstetrics, Gynecology, and Reproductive Sciences, and Director, Women's Health Services Research Unit at the University of Pittsburgh, practices both inpatient and outpatient Internal Medicine with University of Pittsburgh Physicians. Dr. Schwarz's research focuses on improving birth outcomes and women's health. In particular, she is interested in the provision of contraception and preconception counseling to women who are at risk for adverse birth outcomes because of chronic medical conditions, use of medications that can cause birth defects, or limited access to health care. She is also interested in the effects of lactation on maternal health. Dr. Schwarz began writing for *NEJM Journal Watch Women's Health* in 2011.

Cornelius W. Van Niel, MD, is a primary care pediatrician at Sea Mar Community Health Centers in Seattle, where he works primarily with Latino families. As Clinical Professor in the Department of Pediatrics at the University of Washington School of Medicine/Children's Hospital Regional Medical Center, he teaches pediatrics residents and family medicine residents in outpatient and hospital settings. He also teaches during international health projects. Dr. Van Niel has investigated topics in complementary and integrative medicine such as probiotic use in childhood diarrhea. Dr. Van Niel has served on the editorial board of *NEJM Journal Watch Pediatrics and Adolescent Medicine* since January 2006.

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