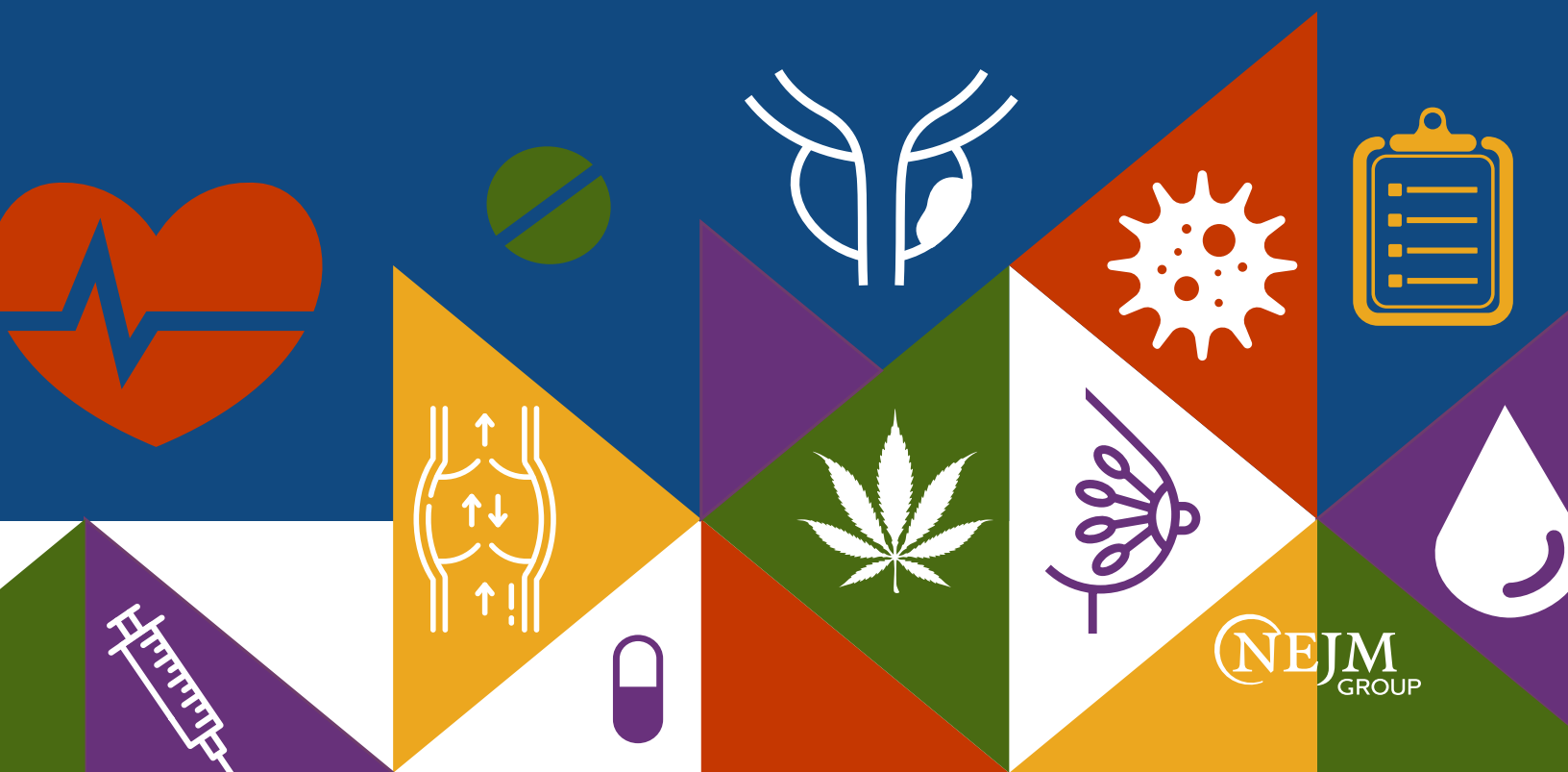


Guideline Watch 2024

Summaries and highlights of the most important
new clinical guidelines to inform your practice



Journal Watch

August 2024

NEJM JOURNAL WATCH

Cardiology
General Medicine
Hospital Medicine
Infectious Diseases
Neurology
Oncology and Hematology

Dear Reader,

Staying updated is crucial as clinical guidelines increasingly shape practice standards and quality measures. NEJM Journal Watch offers summaries of the latest clinical research and keeps you informed about the most relevant guidelines for general medical practice.

Our physician-editors meticulously review many medical journals to pinpoint practice guidelines from various disciplines. They select the most clinically significant recommendations and emphasize key points, highlighting both new changes and established practices.

This collection of Guideline Watches covers a broad spectrum of clinical practice, including outpatient and inpatient settings, and addresses perspectives from primary care to subspecialties. We trust you will find this compilation useful in delivering optimal patient care.

Sincerely,

Raja-Elie E. Abdunour, MD
Editor-in-Chief

Guideline Watch 2024

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Updated Guideline for Management of Lower Extremity Peripheral Artery Disease

This update of the 2016 guideline includes new options for medical therapies and a focus on health disparities.

Shea E. Hogan, MD, MSCS, FACC, FSCAI, FSVM, reviewing **Circulation** 2024 Jun 11.

Sponsoring Organizations: American College of Cardiology and American Heart Association

Target Audience: Primary care clinicians, vascular medicine specialists, cardiovascular specialists, interventional radiologists, vascular surgeons, podiatrists, wound care specialists

Background and Objectives

This update to the 2016 guideline provides recommendations for managing patients across the spectrum of peripheral artery disease (PAD) presentation (asymptomatic to limb ischemia).

What's Changed

- Low-dose rivaroxaban, in addition to daily aspirin, is now recommended to decrease the risk for major adverse cardiovascular events (MACEs) and major adverse limb events in patients with symptomatic PAD who are not at increased bleeding risk.
- In patients with PAD and type 2 diabetes, the use of glucagon-like peptide-1 (GLP-1) agonists and sodium–glucose cotransporter-2 (SGLT-2) inhibitors are effective to reduce MACE.
- This guideline newly highlights the importance of identifying and addressing health disparities in PAD at the patient, community, and system levels, which are associated with poor leg and cardiovascular outcomes.

Key Recommendations

Clinical Assessment:

- Patients with PAD may be categorized into one of four clinical subsets: asymptomatic, chronic symptomatic, chronic limb-threatening ischemia (CLTI), and acute limb ischemia (ALI).
- Clinical assessment includes recognition of PAD risk factors, including the presence of known vascular disease in other arterial beds, as well as history and physical exam.
- In patients at increased risk for PAD:
 - Ask about exertional leg symptoms, resting leg pain, and leg wounds or skin changes.
 - Conduct a comprehensive vascular exam regularly, including assessment of the legs and feet.

Diagnosis:

- To establish a PAD diagnosis, the resting ankle–brachial index (ABI) remains the initial test of choice in patients with suggestive history or exam findings. The ABI result should be reported as normal (1–1.4), borderline (0.91–0.99), abnormal (≤ 0.9) or noncompressible (> 1.4).
- When ABI > 1.4 , perform toe–brachial index (TBI).
- In patients with suspected symptomatic PAD and normal or borderline resting ABI who can walk, perform exercise treadmill ABI.

Management:

- Guideline-directed management and therapy (GDMT) should include single antiplatelet therapy, anti-hypertensive therapy, low-density lipoprotein cholesterol control ($\geq 50\%$ reduction, with goal < 70 mg/dL), diabetes management (including GLP-1 agonists), tobacco cessation, flu, and COVID-19 vaccinations, and consideration of low-dose rivaroxaban.
- A walking-based program is recommended in patients with chronic symptomatic PAD.
- While revascularization (surgical, endovascular, or hybrid) is a class I indication in patients with CLTI, in those with chronic symptomatic PAD, it should be utilized after initiation of GDMT (including consideration of cilostazol for claudication) and discussion/uptake of structured walking exercise.
- In patients with CLTI, a multidisciplinary team approach is recommended to complete wound healing, minimize tissue loss, and preserve ambulatory status.
- Patients with ALI should undergo emergent evaluation and therapy, including revascularization (if possible) and anticoagulation.

COMMENT

This comprehensive document will enable primary and specialty care providers to improve the diagnosis and management of patients with PAD, who remain underdiagnosed and undermanaged, and who continue to experience worse clinical outcomes than patients with coronary artery disease. I look forward to improved advocacy for these patients and future research aimed at closing evidence gaps to optimize clinical care.

Gornik HL et al. ACC/AHA/AACVPR/APMA/ABC/SCAI/SVM/SVN/SVS/SIR/VESS guideline for the management of lower extremity peripheral artery disease: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation* 2024 Jun 11; 149:e1313. (<https://doi.org/10.1161/CIR.0000000000001251>)

Dr. Hogan is an interventional cardiologist at Denver Health; Associate Professor of Clinical Medicine at the University of Colorado School of Medicine; and a clinician-scientist at CPC Clinical Research.

Managing Acute Pancreatitis

The American College of Gastroenterology published new guidelines for this condition.

Andrew S. Parsons, MD, MPH, reviewing *Am J Gastroenterol* 2024 Mar.

Sponsoring Organization: American College of Gastroenterology (ACG)

Background

Early management of acute pancreatitis (AP) is critical to prevent complications that occur in as many as 20% of hospitalized patients with AP. Experts from the ACG completed a systematic review of the literature and developed the following guidelines for managing AP.

Key Recommendations

All recommendations are conditional with very low or low quality of evidence unless otherwise stated.

- All patients with AP should undergo transabdominal ultrasound for evaluation of biliary pancreatitis. When the cause of AP is unclear after initial laboratory testing and imaging, patients eventually should undergo additional diagnostic evaluation, which might include repeat ultrasound, magnetic resonance imaging, or endoscopic ultrasound.
- Moderately aggressive fluid resuscitation with lactated Ringer's solution should be started ([NEJM JW Gen Med Oct 1 2023](#) and *Am J Gastroenterol* 2023; 118:2258), defined as a bolus of 10 mL/kg followed by infusion of 1.5 mL/kg/hour ([NEJM JW Gen Med Oct 15 2022](#) and *N Engl J Med* 2022; 387:989), and additional boluses can be given if a patient has evidence of hypovolemia.
- Medical therapy is preferred over endoscopic retrograde cholangiopancreatography (ERCP) within the first 72 hours for patients who have AP without cholangitis.
- Rectal indomethacin should be given to individuals at high risk for post-ERCP pancreatitis (strong recommendation with moderate-quality evidence).
- Pancreatic duct stents should be used in patients at high risk for post-ERCP pancreatitis who are receiving rectal indomethacin.
- Although antibiotics are critical for patients with infected pancreatic necrosis, fine-needle aspiration should not be performed, and prophylactic antibiotics should not be given to all patients with severe AP.
- Early oral feeding (within 24–48 hours) should begin with a low-fat solid diet (as opposed to liquid) for patients with mild AP.

COMMENT

Our understanding of the optimal management of acute pancreatitis has changed during the past decade. These evidence-based, practical recommendations support evolving trends in treating this patient population.

Tenner S et al. American College of Gastroenterology guidelines: Management of acute pancreatitis. *Am J Gastroenterol* 2024 Mar; 119:419. (<https://doi.org/10.14309/ajg.0000000000002645>)

Dr. Parsons is Assistant Professor of Medicine and Public Health at the University of Virginia School of Medicine and a hospitalist at UVAHealth, Charlottesville.

Managing Cannabis Hyperemesis Syndrome

Experts offer guidance on diagnosing CHS and treating patients with this challenging condition.

Daniel D. Dressler, MD, MSc, MHM, FACP, reviewing **Gastroenterology** 2024 May.

Sponsoring Organization: American Gastroenterological Association (AGA)

Background

The incidence of cannabis hyperemesis syndrome (CHS) — a subtype of cyclic vomiting syndrome that is associated with chronic, heavy cannabis use — has been rising in the U.S. People with CHS often engage in compulsive prolonged hot bathing to relieve symptoms. CHS has not been studied well, so the AGA commissioned this clinical practice guide to help clinicians diagnose and manage CHS based on current best evidence and expert recommendations.

Key Recommendations

Clinical diagnostic criteria:

- Episodic vomiting, ≥ 3 times annually
- Cannabis use for >1 year before symptom onset, usually >4 times weekly, on average
- Symptoms resolve after cannabis abstinence for at least 6 months (or for the duration of ≥ 3 vomiting cycles for an individual patient)

Phases of disease:

- Inter-episodic phase: Absent or minimal symptoms; one third of patients have nausea or dyspepsia
- Prodromal phase: Nausea and abdominal pain, usually 30 to 90 minutes in duration; autonomic symptoms (e.g., sweating, hot or cold feeling, anxiety/panic)
- Emetic phase: Relentless vomiting, retching, abdominal pain, and neurological symptoms; extreme thirst, drinking large volumes of water
- Recovery phase: Vomiting subsides, able to start or advance oral intake, resumption of regular activities

Diagnostic workup:

- Evaluate for anatomic etiologies (e.g., gastric outlet or bowel obstruction, pancreatitis), and if clinically appropriate, obtain relevant lab studies, upper endoscopy, or abdominal imaging.
- Consider brain imaging (if focal neurological symptoms or signs are present).
- Consider evaluation for possible physiologic and functional etiologies (e.g., gastroparesis, pregnancy, migraines, rumination syndrome, non-cannabis-related cyclic vomiting).

Management (Note: The authors state that these treatments generally are supported only by case series or small clinical trials):

- Inter-episodic phase: Use tricyclic antidepressants (TCAs; e.g., amitriptyline, nortriptyline), anticonvulsants, and mitochondrial supplements (e.g., vitamin B₂, coenzyme Q10); the minimal effective dosing of TCAs is thought to be 75 mg to 100 mg of amitriptyline.
- Prodromal phase (abortive medications): Use triptans, H₁-antihistamines, or benzodiazepines.

- Emetic phase: Use antiemetics (e.g., benzodiazepines, promethazine, ondansetron, neuroleptics); topical capsaicin cream applied to the upper abdomen; and supportive therapies, including maintaining an empty stomach, and resting in a quiet, dark room.
- Opioids should be avoided during all phases.

COMMENT

Although stopping cannabis is recommended for all patients with CHS, abstinence for 6 months (or duration of 3 cycles) is necessary for symptoms to resolve and recidivism is high. Comanagement with psychiatric professionals might help patients when other standard interventions are unsuccessful. Readers who are interested in additional information can check out a recent thorough review of CHS ([Am J Gastroenterol 2023; 118:1157](#)) and a new guideline on managing CHS in the emergency department ([Acad Emerg Med 2024; 31:425](#)).

Rubio-Tapia A et al. AGA Clinical Practice Update on diagnosis and management of cannabinoid hyperemesis syndrome: Commentary. *Gastroenterology* 2024 May; 166:930. (<https://doi.org/10.1053/j.gastro.2024.01.040>)

Dr. Dressler is Director of Internal Medicine Teaching Services at Emory University Hospital; Associate Program Director of the J. Willis Hurst Internal Medicine Residency Program; and Professor of Medicine at Emory University School of Medicine, Atlanta.

Prostate Cancer Screening Guidelines for Black Men

The Prostate Cancer Foundation issues the first set of stand-alone guidelines for screening Black men in the U.S.

Robert Dreicer, MD, MS, MACP, FASCO, reviewing **NEJM Evid** 2024 May.

Sponsoring Organization: Prostate Cancer Foundation

Background and Objective

Black men have both an extremely high incidence of prostate cancer and a significantly higher lifetime risk of dying from it compared with other groups. Current screening guidelines typically include recommendations regarding Black men, but the recommendations are somewhat variable.

A multidisciplinary panel conducted a comprehensive evidence-based systematic review and selected 264 studies deemed relevant for addressing 6 key questions regarding screening of Black men in the U.S.

Key Recommendations

- Black men should be screened for prostate cancer as the benefits generally outweigh the risks.
- Prostate-specific antigen (PSA) testing is considered the front-line screening method; some clinicians may opt to add a digital rectal exam.
- Shared decision making with providers is key for individuals to make informed decisions about whether to undergo screening.
- Screening should begin with a baseline PSA test between ages 40 and 45. Depending on health status, yearly PSA testing should be considered.
- Individuals who have a family history of prostate cancer or high-risk genetic variants should consider starting screening at age 40.
- After age 70, individuals should discuss with their provider whether to stop screening.

COMMENT

A recent increase in the incidence of men presenting with advanced prostate cancer has been attributed by some to the change in prostate cancer screening guidelines a decade ago, recommending against universal screening. The Prostate Cancer Foundation's stand-alone guideline for Black men provides evidence-based recommendations to lessen the burden of disease in this high-risk population.

Garraway IP et al. Prostate Cancer Foundation screening guidelines for Black men in the United States. **NEJM Evid** 2024 May; 3:EVIDo2300289. (<https://doi.org/10.1056/EVIDo2300289>)

Dr. Dreicer is Deputy Director of the University of Virginia Cancer Center and Professor of Medicine and Urology at the University of Virginia School of Medicine, Charlottesville.

USPSTF Releases New Breast Cancer Screening Guidelines

The Task Force now recommends biennial screening for average-risk women who are 40 to 74.

Molly S. Brett, MD, reviewing **JAMA** 2024 Apr 30.

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

Background

Screening mammography lowers breast cancer–related mortality, but incidence of invasive breast cancer is increasing among women in their 40s. Compared with white women, Black women are more likely to develop aggressive cancers at younger ages and are at higher risk for breast cancer–related mortality. In 2016, the USPSTF recommended biennial mammograms for middle-aged women (age range, 50–74; grade B) with individualized decision making for those who were 40 to 49 (grade C; [NEJM JW Gen Med Feb 1 2016](#) and *Ann Intern Med* 2016; 164:279). Now, the Task Force has updated this guideline.

Key Recommendations

These recommendations apply to all people assigned female at birth and at average risk for breast cancer.

- The USPSTF recommends biennial screening mammograms for women who are 40 to 74 (grade B) and concludes with moderate certainty that such screening has net benefit in preventing breast cancer–related mortality.
- In women who are 75 or older, evidence is insufficient to recommend for or against screening.
- For women with dense breasts, the Task Force found inadequate evidence to make a recommendation on benefits and harms of supplemental screening with ultrasound or magnetic resonance imaging after negative mammography.

What's New

For women in their 40s, the USPSTF previously recommended shared decision making about screening but stopped short of formally recommending it; now, they recommend screening all women in this age group. A decision analysis estimates this change will avert 1.3 additional breast cancer–related deaths per 1000 women screened biennially during a lifetime of screening — at the expense of an approximately 60% increase in false-positive results.

COMMENT

Expert groups disagree about optimal ages, intervals, and modalities for breast cancer screening. For example, the American Cancer Society strongly recommends screening starting at age 45 (initially annually) and makes a “qualified” (weaker) recommendation to start at age 40. Guidelines differ for several reasons. Few rigorous studies have been designed to compare screening strategies, so most of the Task Force recommendations are based on modeling studies rather than direct evidence. Equally importantly, medical organizations (and individuals) differ in how they weigh harms and benefits of different approaches. For example, computer models suggest that screening biennially instead of annually could lead to a 50% decrease in false positives but a slight increase in breast cancer–related mortality. This tradeoff will seem reasonable to some but unacceptable to others. In several ongoing trials, researchers are comparing standard one-size-fits-all screening schedules and individualized risk-based schedules; those results might help address some areas of uncertainty.

US Preventive Services Task Force. Screening for breast cancer: US Preventive Services Task Force recommendation statement. **JAMA** 2024 Apr 30; [e-pub]. (<https://doi.org/10.1001/jama.2024.5534>)

Henderson JT et al. Screening for breast cancer: Evidence report and systematic review for the US Preventive Services Task Force. **JAMA** 2024 Apr 30; [e-pub]. (<https://doi.org/10.1001/jama.2023.25844>)

Trentham-Dietz A et al. Collaborative modeling to compare different breast cancer screening strategies: A decision analysis for the US Preventive Services Task Force. **JAMA** 2024 Apr 30; [e-pub]. (<https://doi.org/10.1001/jama.2023.24766>)

Dr. Brett is an Assistant Professor of Medicine at the University of Colorado.

The Role of Imaging in Managing Patients with Gastrointestinal Bleeding

In a new joint guideline, a reviewing panel makes recommendations for when specific studies should be used.

Aaron J. Calderon, MD, FACP, SFHM, reviewing **Am J Gastroenterol** 2024 Mar.

Sponsoring Organization: American College of Gastroenterology and Society of Abdominal Radiology

Background

Existing guidelines for managing gastrointestinal (GI) bleeding vary in their recommendations for when to use radiologic studies for evaluation. Furthermore, no thorough evaluation of the advantages and limitations of endoscopic and radiologic studies has been done previously. This guideline fills that void.

Key Points

- Evaluating nonvariceal upper GI bleeding (esophagus, stomach, and duodenum):
 - Unless contraindicated, begin with esophagogastroduodenoscopy (EGD).
 - Catheter angiography is indicated when EGD is unsuccessful in achieving hemostasis.
 - Computed tomographic angiography (CTA), followed by catheter angiography if CTA is positive, can be considered in actively bleeding patients when the site of bleeding cannot be identified by EGD (unusual).
- Evaluating small bowel bleeding (between the ligament of Treitz and ileocecal valve):
 - Capsule endoscopy is the test of choice if EGD and colonoscopy do not reveal a source in patients who present with GI bleeding.
 - CT enterography, which utilizes oral and intravenous contrast, should be performed instead of CTA in hemodynamically stable patients with suspected ongoing small bowel bleeding after negative colonoscopy, EGD, and capsule endoscopy.
 - If ongoing bleeding is brisk with hemodynamic instability, CTA should be performed instead of CT enterography.
 - CT enterography should be the first-line imaging test in patients at excess risk for video capsule retention (e.g., strictures, radiation) or with suspected small bowel neoplasm.
- Evaluating lower GI bleeding (distal to the ileocecal valve):
 - CTA should be performed as the first diagnostic study in hemodynamically unstable patients.
 - In unstable patients with active extravasation seen on CTA, catheter angiography with embolization should be performed, ideally within 90 minutes.
 - Colonoscopy should be performed in hemodynamically stable patients after adequate colon cleansing.

COMMENT

This collaborative guideline, based primarily on expert opinion, is an excellent review for clinicians taking care of patients with GI bleeds. In general, EGD or colonoscopy still is the preferred initial diagnostic step for most patients. However, CTA should be used more frequently in hemodynamically unstable patients with lower GI bleeds when time to diagnosis is crucial and there is no window for a colonic cleanse. [Supplementary material for these guidelines is available online.](#)

Sengupta N et al. *The role of imaging for gastrointestinal bleeding: Consensus recommendations from the American College of Gastroenterology and Society of Abdominal Radiology*. **Am J Gastroenterol** 2024 Mar; 119:438. (<https://doi.org/10.14309/ajg.0000000000002631>)

Dr. Calderon is Program Director of Internal Medicine Residency at Saint Joseph Hospital and Clinical Professor of Medicine in the Division of General Internal Medicine at the University of Colorado School of Medicine, Denver.

Managing Patient Deterioration Outside of the ICU

Checking vital signs and deploying rapid response teams are paramount to identifying and responding to critically ill hospitalized patients.

Daniel D. Dressler, MD, MSc, MHM, FACP, reviewing **Crit Care Med** 2024 Feb 1.

Sponsoring Organization: Society of Critical Care Medicine (SCCM)

Background

When patients who are hospitalized on medical floors — i.e., outside of intensive care units (ICUs) — become critically ill, clinicians and the hospital system must respond efficiently and effectively. The SCCM offers evidence-based recommendations and guidance regarding recognition of, and an expediently mobilized response to, deteriorating hospitalized patients outside of the ICU.

Key Recommendations

- Vital signs: When a medical floor patient exhibits any cause for concern, staff should immediately acquire a new, complete set of vital signs and report substantial abnormalities to appropriate clinicians urgently.
- Rapid response team (RRT): For a deteriorating non-ICU patient, an RRT — with explicit activation criteria — should be deployed.
 - The composition of RRTs varies across institutions. Team leaders typically are critical care nurses and respiratory therapists; some institutions include physicians or advanced care practitioners (nurse practitioners or physician assistants). The SCCM makes no recommendation about whether a physician must be part of the hospital RRT.
 - At least one clinician member of a responding RRT should have expertise in eliciting patients' goals of care and establishing treatment plans that reflect patients' wishes and prognosis.
 - Patients, families, and care partners should be empowered to alert hospital personnel and the RRT.

COMMENT

Although recommending RRT deployment in hospitals is based on reasonably strong evidence ([NEJM JW Gen Med Nov 15 2016](#) and [J Hosp Med 2016; 11:438](#)), most of the other recommendations are based on low-certainty evidence. Common sense dictates that a complete set of vital signs should be collected, reported, and documented when a patient shows cause for concern. Because complete vitals sometimes are either not collected or not documented, reminding all clinicians to do so likely will improve care. Giving patients and families the ability to activate RRTs also is sensible. A less obvious but important point is that RRTs can be effective with or without a physician team member. And it's definitely wise to recommend that responding clinicians have skills in rapidly eliciting goals of care.

Honarmand K et al. Society of Critical Care Medicine guidelines on recognizing and responding to clinical deterioration outside the ICU: 2023. **Crit Care Med** 2024 Feb 1; 52:314. (<https://doi.org/10.1097/CCM.0000000000006072>)

Dr. Dressler is Director of Internal Medicine Teaching Services at Emory University Hospital; Associate Program Director of the J. Willis Hurst Internal Medicine Residency Program; and Professor of Medicine at Emory University School of Medicine, Atlanta.

Managing Post-Traumatic Stress Disorder

A new guideline carefully separates validated treatments from those with weak or insufficient evidence and recommends a screening tool for primary care.

Peter Roy-Byrne, MD, reviewing **Ann Intern Med** 2024 Feb 27.

Sponsoring Organization: U.S. Veterans Affairs/U.S. Department of Defense (VA/DOD)

Background

This guideline on post-traumatic stress disorder (PTSD), written by the VA/DOD Evidence Based Practice Work Group, provides 37 assessment and treatment recommendations, based on the quality and strength of evidence for effectiveness and safety, along with consideration of feasibility and patient perspectives. The authors believe that this guideline can apply to both military and civilian patients.

Key Recommendations

- A 5-item tool (the [PC-PTSD-5](#)) is recommended for primary care screening. For positive screens, a clinician-rated structured clinical assessment should be used to confirm PTSD diagnosis.
- Psychotherapies are recommended over pharmacotherapy due to greater efficacy, fewer adverse effects, and patient greater preference, despite feasibility and patient-engagement challenges.
- For specific psychotherapies, recommendations are strongest for cognitive processing therapy (CPT), eye movement desensitization and reprocessing (EMDR), and prolonged exposure (PE). Various other therapies are rated as weaker or as having insufficient evidence. The authors recommend against group, marital, or family therapy formats. Delivery by teletherapy is acceptable.
- For medications, paroxetine, sertraline, and venlafaxine are recommended; evidence is insufficient for all other antidepressants and psychedelic drugs (with or without psychotherapy); the authors recommend against divalproex, prazosin, ketamine, risperidone, benzodiazepines, and cannabis.
- Evidence is insufficient for a variety of nonpharmacologic biologic treatments, including transcranial magnetic or direct current stimulation. The authors recommend against electroconvulsive therapy.
- Among complementary and alternative treatments, only mindfulness is recommended.
- For nightmares, prazosin is given a “weak” recommendation; evidence is insufficient for various other proposed treatments for PTSD-associated nightmares.
- Comorbid conditions should not delay PTSD treatment but occasionally might alter recommendations; for example, ketamine might be appropriate if comorbid depression is present.

COMMENT

A striking aspect of this guideline is its long list of interventions that have been proposed for PTSD treatment but lack sufficient supporting evidence. The guideline’s recommendations *against* treatments often are based on single negative clinical trials or reflect clear evidence of risks and harms (e.g., benzodiazepines, cannabis). Popular enthusiasm for psychedelics is tempered by limited studies and concern about harms, resulting in no recommendation.

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The recommended 5-item screener (the PC-PTSD-5) can be accessed with an online tool; a cutoff score of 3 or 4 appears to optimize sensitivity and specificity ([JAMA Network Open 2021; 4:e2036733](#)). The authors note that primary care providers are well positioned to screen patients for PTSD, provide medication, use self-rated checklists to monitor treatment, and counsel both in favor of specific psychotherapies and against certain potentially harmful interventions such as benzodiazepines or cannabis.

Schnurr PP et al. The management of posttraumatic stress disorder and acute stress disorder: Synopsis of the 2023 U.S. Department of Veterans Affairs and U.S. Department of Defense clinical practice guideline. **Ann Intern Med** 2024 Feb 27; [e-pub]. (<https://doi.org/10.7326/M23-2757>)

Dr. Roy-Byrne is Professor in the Department of Psychiatry and Behavioral Sciences at the University of Washington, Seattle.

Best Practices for Advanced Cardiac Life Support

The American Heart Association has published minor but relevant updates to its resuscitation guidelines.

Daniel D. Dressler, MD, MSc, MHM, FACP, reviewing **Circulation** 2024 Jan 30.

Sponsoring Organization: American Heart Association (AHA)

Background

In 2020, the AHA published advanced cardiac life support (ACLS) guidelines ([Circulation 2020; 142:Suppl 2:S366](#)). The organization now has updated those guidelines after systematically reviewing and incorporating literature on ACLS published after 2020. The guidelines delineate best practices in resuscitation and emergency cardiovascular care to achieve return of spontaneous circulation (ROSC) with favorable neurological outcomes.

Key Recommendations

The AHA committee recommends the following:

- Temperature control:
 - Provide temperature control for all adults who do not follow commands after ROSC.
 - Fever prevention (maintaining temperature $\leq 37.5^{\circ}\text{C}$) is more important than cooling to a lower temperature; however, selecting and maintaining a constant temperature (between 32°C and 37.5°C) is recommended.
 - Patients who already are hypothermic after ROSC should be rewarmed no faster than 0.5°C per hour.
- Seizure management:
 - Spot electroencephalography (EEG), rather than continuous EEG, can be performed in post–cardiac arrest patients who are unable to follow commands.
 - In patients who achieve ROSC and have EEG evidence of ictal or interictal waveforms, a therapeutic trial of a nonsedating antiseizure medication can be considered.
- Extracorporeal membrane oxygenation (ECMO):
 - Resuscitation with ECMO is appropriate in select patients when a trained clinician and equipped healthcare system can provide it.

The AHA committee recommends *against* routinely administering calcium for cardiac arrest. They also recommend *against* routine emergent coronary angiography in patients who achieve ROSC, unless they exhibit ST-segment–elevation myocardial infarction (STEMI), shock, electrical instability, signs of substantial cardiac damage, or ongoing ischemia.

COMMENT

This guideline update offers some relevant recommendations that practitioners can implement in caring for patients during and after cardiac arrest. *Practices to avoid* might be even more helpful than practices to implement. I frequently observe calcium administration as a “last-ditch” or “try-everything” approach during arrest resuscitation; however, the guideline committee weighed in

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against routine administration of calcium (outside of special circumstances: e.g., hyperkalemia or calcium-channel blocker overdose) based on randomized trial data showing that calcium administration was associated with less likelihood of sustained ROSC. Emergent coronary angiography is recommended post-resuscitation only for patients with STEMI or those who are unstable; it should not be performed simply because a patient had a shockable rhythm arrest.

Perman SM et al. 2023 American Heart Association focused update on adult advanced cardiovascular life support: An update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. **Circulation** 2024 Jan 30; 149:e254. (<https://doi.org/10.1161/CIR.0000000000001194>)

Dr. Dressler is Director of Internal Medicine Teaching Services at Emory University Hospital; Associate Program Director of the J. Willis Hurst Internal Medicine Residency Program; and Professor of Medicine at Emory University School of Medicine, Atlanta.

Management of HIV During Pregnancy

Dolutegravir-containing regimens are preferred, but — for the first time — bicitegravir/FTC/TAF is included as an alternative option.

Rajesh T. Gandhi, MD, reviewing [HIV.gov](#) 2024 Jan 31.

Sponsoring Organization: NIH Office of AIDS Research Advisory Committee, Department of Health and Human Services

Target Audience: Infectious disease specialists, obstetrician-gynecologists.

Background

Previous versions of these guidelines recommended dolutegravir or ritonavir-boosted darunavir plus dual nucleoside reverse transcriptase inhibitors (NRTIs) for HIV treatment during pregnancy. Bicitegravir/FTC/TAF, the most commonly used treatment for nonpregnant adults, was not previously recommended because data were insufficient.

Key Recommendations — What's Changed

- Preferred initial regimens for pregnant people (and those trying to conceive) who have not previously received antiretroviral drugs are dolutegravir (DTG) plus dual NRTIs; specifically, DTG plus TDF or TAF plus 3TC or FTC, or DTG plus abacavir plus 3TC.
- Bicitegravir/FTC/TAF is now considered an alternative for initial therapy. This upgrade is based on small studies that suggest bicitegravir is safe during pregnancy and reaches levels anticipated to suppress HIV.
- Protease inhibitors are no longer preferred for most pregnant people. Because of concerns about integrase inhibitor resistance in people who have received long-acting injectable cabotegravir for preexposure prophylaxis, ritonavir-boosted darunavir plus dual NRTIs is recommended in this setting.
- If a person becomes pregnant while being effectively treated with bicitegravir/FTC/TAF, this same regimen should be continued.
- Upgraded guidelines address HIV testing during pregnancy and reproductive options when one or both partners have HIV.
- Infants with perinatal exposure to HIV should be screened for congenital cytomegalovirus.
- A table summarizing [neonatal antiretroviral management](#) has also been updated.

COMMENT

These recommendations will guide the treatment of thousands of people with HIV each year who become pregnant or who are trying to conceive. I typically recommend dolutegravir plus TAF/FTC to people who are trying to conceive and to those who are diagnosed with HIV during pregnancy. If a person has a preference for a single-pill combination, I prescribe bicitegravir/FTC/TAF after discussion with the patient. Studies are needed to ascertain whether long-acting injectable cabotegravir plus rilpivirine is safe and effective during pregnancy.

HHS Panel on Treatment of HIV During Pregnancy and Prevention of Perinatal Transmission — A Working Group of the NIH Office of AIDS Research Advisory Council (OARAC). Recommendations for the use of antiretroviral drugs during pregnancy and interventions to reduce perinatal HIV transmission in the United States. HIV.gov; 2024 Jan 31. (<https://clinicalinfo.hiv.gov/en/guidelines/perinatal>)

Dr. Gandhi is Professor of Medicine at Harvard Medical School and Director of HIV Clinical Services and Education at Massachusetts General Hospital, Boston.

Managing Acute Respiratory Distress Syndrome

This update of a 2017 clinical practice guideline addresses use of steroids and neuromuscular blockade for ARDS patients.

Patricia Kritek, MD, reviewing **Am J Respir Crit Care Med** 2024 Jan 1.

Sponsoring Organization: American Thoracic Society (ATS)

Background

Acute respiratory distress syndrome (ARDS) is a form of hypoxemic respiratory failure with high mortality. The mainstays of therapy are supportive and are designed to minimize further lung injury from mechanical ventilation. With the large number of patients with ARDS during the early COVID-19 pandemic, new data supports some revisions to standard care of patients with ARDS. The ATS has now released an update of its 2017 guideline, originally published in association with the European Society of Intensive Care Medicine and the Society of Critical Care Medicine ([Am J Respir Crit Care Med 2017; 195:1253](#)).

Key Points

- Administration of steroids is recommended, although without specific guidance on choice of steroid, dose, timing, or duration. The document suggests following steroid recommendations for specific causes of ARDS (e.g., COVID-19, community-acquired pneumonia).
- Neuromuscular blockade (NMB) is recommended in early treatment of patients with severe ARDS (partial pressure of oxygen [PaO_2]:fraction of inspired oxygen [FiO_2] <100) and courses should be limited to 48 hours or shorter.
- Venovenous extracorporeal membrane oxygenation (ECMO) now is recommended for select patients with severe ARDS ($\text{PaO}_2:\text{FiO}_2$ <80 or pH <7.25 with $\text{PaCO}_2 \geq 60$ mm Hg), although with low certainty of evidence.
- Higher levels of positive end-expiratory pressure (PEEP) are recommended for patients with moderate-to-severe ARDS.
- Recruitment maneuvers (i.e., short duration holds of higher inspiratory pressure, designed to open atelectatic alveoli) are strongly discouraged.
- Strong recommendations for both low tidal volume ventilation and prone positioning for moderate-to-severe ARDS remain from the 2017 guideline.

COMMENT

This guideline addresses use of steroids and neuromuscular blockade, both of which were omitted in the 2017 guideline. Administration of steroids should be considered in all patients with attention to the cause of ARDS and concomitant conditions (e.g., sepsis) to determine dose and duration. More cautious use of NMB makes sense, although it can be helpful in patients with severe ARDS and ventilator dyssynchrony. Venovenous ECMO remains resource-intense and should be considered only after optimization of mechanical ventilation, prone positioning, and neuromuscular blockade administration.

Qadir N et al. *An update on management of adult patients with acute respiratory distress syndrome: An official American Thoracic Society clinical practice guideline.* **Am J Respir Crit Care Med** 2024 Jan 1; 209:24. (<https://doi.org/10.1164/rccm.202311-2011ST>)

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Updated Guidelines for Use of Pneumococcal Vaccines in Adults

2023 guidelines for pneumococcal vaccination of adults aged ≥ 19 years

Stephen G. Baum, MD, reviewing **MMWR Recomm Rep** 2023 Sep 8.

Target Group: Healthcare practitioners who provide care for adults

Sponsoring Organization: CDC's Advisory Committee on Immunization Practices (ACIP)

Background

Streptococcus pneumoniae infection is the most common bacterial cause of community-acquired pneumonia in adults. As vaccination initially reduced the prevalence of some pneumococcal strains, others replaced them, necessitating newer polyvalent vaccines. Currently, three anti-pneumococcal vaccines targeting different pneumococcal serotypes are recommended for use in adults with and without immunocompromising conditions. Two (PCV15, and PCV20) are pneumococcal conjugate vaccines and one (PPSV23) contains several pneumococcal polysaccharides.

Method: Literature review by ACIP experts on use, efficacy, and adverse effects of these vaccines in adult age groups with and without comorbidities or immunocompromise

Key Recommendations

- Pneumococcal vaccination is not recommended in healthy adults younger than 65.
- Adults aged 19–64 with underlying medical conditions who have not previously received a pneumococcal conjugate vaccine should receive either PCV20 alone or PCV15 followed by PPSV23 given ≥ 1 year later. No PPSV23 is needed if PCV20 is given.
- Adults aged 19–64 with underlying medical conditions who have received only one dose of PPSV23 should receive either PCV15 or PCV20 at least 1 year after their PPSV23 vaccination.
- Adults aged 19–64 with underlying medical conditions (or healthy adults aged ≥ 65) who have received PCV13 alone should receive either PCV20 or PPSV23 at least 1 year later.
- Vaccine-naïve adults aged ≥ 65 should receive either PCV20 alone or PCV15 followed by PPSV23 given ≥ 1 year later.

Although these vaccines provide successive overlap in the covered serotypes, the nature and duration of immunity varies; thus, some vaccines require re-immunization. Previous guidelines in 2021 recommended use of PPSV23 alone (2 doses) or PCV13 followed by PPSV23.

COMMENT

These updated recommendations are supported by data on outcomes and epidemiology in vaccinated and unvaccinated or partially vaccinated adults. Combinations of vaccines covering non-overlapping serotypes — as well as the timing of these immunizations — are provided. Although tables detailing these recommendations appear at the end of the report, a flowchart depicting the algorithms would be greatly helpful for understanding and adhering to the guidelines regarding vaccine choices and dosage schedules.

Kobayashi M et al. Pneumococcal vaccine for adults aged ≥ 19 years: Recommendations of the Advisory Committee on Immunization Practices, United States, 2023. MMWR Recomm Rep 2023 Sep 8; 72:1. (<https://doi.org/10.15585/mmwr.rr7203a1>)

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