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Activity description

Practicing evidence-based medicine (EBM) is important in today's health care environment. This model of care offers clinicians a way to enrich quality, provide patient satisfaction, reduce costs and improve outcomes. A common implementation of EBM involves the use of clinical practice algorithms during medical decision-making to encourage optimal care. This widely recognized practice is designed to address the persistent problem of clinical practice variation with the help of actionable information at the point of care. These e-newsletters enable health care professionals to put new EBM into practice.

- Discuss and apply evidence-based guidelines to the diagnosis and management of uncomplicated diverticulitis in adults, with a focus on reducing low-value care, minimizing unnecessary antibiotic use, and promoting patient-centered, cost-effective treatment strategies.
- Describe the emerging role of GLP-1 receptor agonists, particularly semaglutide, in the treatment of MASLD and MASH, including their impact on steatohepatitis resolution, fibrosis reduction, and associated metabolic outcomes, based on recent clinical trial evidence.
- Learning objectives
- Assess the efficacy, safety and clinical potential of lorundrostat, a direct aldosterone synthase inhibitor, in the management of uncontrolled hypertension and compare its therapeutic profile with established fourth-line agents such as MRAs and amiloride.
- Examine long-term neurological and mortality outcomes associated with GLP-1 RA therapy in obese patients with type 2 diabetes, and explore potential mechanisms underlying observed reductions in dementia, stroke and overall mortality.
- Recognize current evidence-based strategies to assess cardiovascular and cerebrovascular risk, including the use of validated scoring systems for PFOrelated stroke and coronary artery CTA for guiding preventive therapy to optimize individualized patient care and reduce unnecessary interventions.

Accreditation statement

In support of improving patient care, this activity has been planned and



implemented by Optum Health Education and Optum. Optum Health Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE) and the American Nurses Credentialing Center (ANCC) to provide continuing education for the health care team.

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The American Academy of Nurse Practitioners Certification Program (AANPCP) accepts credit from organizations accredited by the ACCME and ANCC.

Physicians

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American Board of Internal Medicine

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 1.0 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit. Please note, by claiming ABIM points, you authorize Optum Health Education to share your attendance information with the ABIM.

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The American Academy of Physician Assistants (AAPA) accepts credit from organizations accredited by the ACCME.

Attendance

A certificate of attendance will be provided to learners upon completion of activity requirements, enabling participants to register with licensing boards or associations that have not been pre-approved for credits. To apply for credit types not listed above, participants should use the procedure established by the specific organization with which they wish to obtain credit.

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This activity is provided by Optum Health Education and Optum.

Commercial support

No commercial support was received for this activity.

Summary of diverticulitis management: 2025 JAMA Review and other key articles

Diverticular disease has been estimated to be present in up to 50% of people over age 60.¹ Symptomatic diverticulitis occurs in 1%–4%, or 180 per 100,000 people, resulting in hundreds of thousands of hospitalizations and billions of dollars in health care expenditures every year. As evidence for appropriate treatment has advanced, some of the care represented in these numbers is no longer indicated. Most (85%) cases of diverticulitis are uncomplicated, meaning there is no abscess, bowel obstruction, perforation or fistula. This article summarizes the 2025 JAMA Review on diverticulitis management and integrates findings from key recent peer-reviewed articles that address low-value care, unwarranted variation and unnecessary cost in the treatment of diverticulitis.

2025 JAMA Review highlights²

The authors searched the evidence of high-quality reports published between 2000 and 2025 to include 85 studies in the review. The included Figure 3 (reproduced below) summarizes the management algorithm. Findings of the review revealed the following:

- Diverticular disease is more prevalent in patients with diabetes mellitus, obesity or connective tissue disorders (for example, Marfan, Ehlers-Danlos, polycystic kidney disease)
- Observation alone is indicated if the following conditions are met:
 - Clinically suspected and CT-verified uncomplicated diverticulitis
 - Absence of systemic symptoms such as fever or chills
 - Adequate control of symptoms such as pain control with acetaminophen
 - Improving clinical picture over 24-48 hours
 - Ability to tolerate oral fluids
 - Immuno-competent patient without significant comorbidities
 - Age < 80 years

Abdominal ultrasound or MRI may alternatively have a role in confirming the diagnosis in those for whom CT is contraindicated or not available.

- Antibiotics are still considered first line for patients with worsening signs or symptoms, advanced age (> 79 years) or significant comorbidities (for example, CKD, cirrhosis, poorly controlled DM, and other conditions or medications that suppress the immune system).
- For patients who require antibiotics and can tolerate oral fluids, outpatient treatment is effective for the majority (95%) of patients with uncomplicated acute diverticulitis.
- In the 13%–40% of patients with recurrent diverticulitis, elective surgical resection after the acute phase may result in higher quality of life scores compared with those who are managed conservatively.

Patient presents with possible diverticulitis Clinical assessment including patient history, physical examination and laboratory testing Findings suggestive of diverticulitis include left lower quadrant pain, nausea, vomiting, fever, leukocytosis Computed tomography of the abdomen and pelvis with intravenous (IV) and/or oral iodinated contrast to confirm diagnosis **Uncomplicated diverticulitis** (localized diverticular inflammation) Complicated diverticulitis Moderate to severe **Fistula** Stricture Peridiverticular abscess Free perforation Mild symptoms symptoms Able to tolerate oral intake Unable to tolerate oral intake No concern for peritonitis Concerning symptoms that require **Peritonitis** evaluation^a Outpatient management with close follow-up **Hospital admission** 111Oral antibiotics as appropriate (Table 2) IV antibiotics (Table 3) IV antibiotics IV antibiotics (Table 3) (Table 3) Clear liquid diet (for 1-2 days) Clear liquid diet (for 1-2 days) Percutaneous abscess drainage Symptom improvement Persistent symptoms Transition to oral after 1 week after 1 week antibiotics with Colonoscopy 6-8 wk after abscess resolution symptom resolution Advance diet and drain removal (reassess as needed) No symptom No symptom resolution resolution Other considerations following treatment Selective colonoscopy in patients not current with cancer Surgical consultation screening guidelines Consider emergent colon resection within hours of presentation Surgical referral for elective sigmoid resection if the following if life-threatening conditions exist, such as fecal peritonitis conditions are present: requiring surgery to prevent death or severe morbidity. Recurrent diverticulits within 6-12 months that suggests more Consider urgent colon resection performed within 24-72 hours for aggressive disease conditions that require prompt surgery but are not immediately

Figure 3. Management algorithm for complicated and uncomplicated diverticulitis

This algorithm has not been validated.

symptom resolution

a. Concerning symptoms include persistent or worsening abdominal pain, moderate fever (38.5 °C to 38.9 °C [100.94 °F to 102.02 °F]), increased abdominal tenderness with guarding, and worsening leukocytosis.

Fistula, stricture or peridiverticular abscess after acute

life-threatening, such as colonic stricture or diverticular abscess

after unsuccessful drainage procedure.

Table 2. Oral antibiotic regimens for the treatment of uncomplicated acute diverticulitis^{a.b.c}

	Amoxicillin- clavulanate	Cefalexin + metronidazole	Ciprofloxacin + metronidazole	Trimethoprim- sulfamethoxazole + metronidazole
Dose	875 mg/125 mg twice daily	1g g times daily + 500 mg 3 times daily	500 mg twice daily + 500 mg 3 times daily	160 mg/800 mg double-strength tablet twice daily + 500 mg 3 times daily
Adverse effect, %	Nausea (16), diarrhea (10), rash (5-8), liver enzyme elevation (0.04)	Nausea (2-3), diarrhea (2-7), stomach pain (rare), rash (1.5)	GI upset (4.8), taste disturbance (15.5), tendinitis (0.14-0.4), neuropathy (3) rash (1.8)	GI upset (3.7), rash (7.3), hypersensitivity (3-6), photosensitivity (1-5)
Efficacy, %	86-89	75-100	74-94	Limited data

Abbreviation: Gl, gastrointestinal.

 $a. \ \ Broad-spectrum \ or all antibiotic regimens for treatment of acute diverticulitis against gram-negative rods and an aerobic bacteria. When possible, the selection of t$ $antibiotics should be \ guided \ by \ local \ resistance \ patterns \ and \ patient \ allergies. For \ all \ antibiotics, \ consult \ local \ formulary \ for \ appropriate \ use \ and \ do sing \ in \ specific$ populations-for example, he patic impairment, kidney impairment, pregnancy and breast feeding, and administering intravenous antibiotics. A longer course may appear to the contract of thebe needed based on clinical assessment. For intravenous antibiotics: Duration of antibiotics depends on improvement in symptoms. Review within 48 hours or after scanning and consider de-escalating to oral antibiotics where possible.

b. In uncomplicated diverticulitis, antibiotics can be withheld in immunocompetent and stable patients. Antibiotics are indicated in unstable patients with uncomplicated diverticulitis and patients with complicated diverticulitis.

c. Appropriate for patients who are stable and can tolerate oral intake. If intolerant, proceed to intravenous antibiotics. For all regimens, treatment should be 4 to 7 days' duration.

Additional key peer-reviewed articles (2020-2025)

- 1. JAMA Surgery (2024): Management of Diverticulitis: A Review³
 - Highlights safe avoidance of antibiotics and surgery in uncomplicated cases
 - Up to 80% of patients with complicated diverticulitis can be treated successfully with antibiotics plus or minus percutaneous drainage, and without surgery
 - Highlights the need for shared decision-making for elective surgery to prevent recurrence
- 2. Journal of Trauma and Acute Care Surgery (2025): Evidence-Based, Cost-Effective Management of Acute Diverticulitis⁴
 - Provides another algorithm to evaluate appropriate treatment paths for patients with acute diverticulitis
 - Supports CT-based stratification and outpatient care
 - Recommends avoiding antibiotics in the Modified Hinchey Classification 0-1a cases (mild clinical diverticulitis and confined pericolonic inflammation or phlegmon) unless comorbidities exist
- 3. AHRQ Comparative Effectiveness Review (2020)⁵
 - Systematic review of diagnosis, management and follow-up strategies
 - Supports non-antibiotic management in select patients
 - Evaluates effectiveness and safety of interventions
- 4. BMC Emergency Medicine (2022): Non-Antibiotic Management⁶
 - Real-world cohort study comparing antibiotic vs. non-antibiotic protocols
 - Found no difference in recurrence or complications
 - Non-antibiotic protocols reduced unnecessary antibiotic use

Summary of themes across studies

Theme	Key findings	
Low-value care	Avoiding antibiotics and surgery in uncomplicated cases is safe and effective.	
Unwarranted variation	Treatment decisions should be based on established risk factors and take into consideration patient preferences.	
Cost of care	Outpatient and non-antibiotic management significantly reduce unnecessary costs and resource use.	

Bottom line for primary care: Contemporary management of diverticulitis is more conservative and patient-tailored. Most patients with uncomplicated diverticulitis can be managed outpatient with close follow-up, using supportive care and selective antibiotics. This approach is supported by multiple high-level studies and reflected in current guidelines. It leads to similar (or better) outcomes while reducing exposure to antibiotics, lowering costs and improving patient convenience.

As always, clinical judgement is key – identify those who truly need intervention (antibiotics, admission or surgical referral) and manage others with a lighter touch. This nuanced strategy not only benefits individual patients but also advances our broader goal of value-based health care in the management of common conditions like diverticulitis.

Semaglutide for MASLD and MASH

Accumulating data supports the use of the GLP-1 receptor agonists (RA) class for patients with metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH). In an earlier phase II trial, the effects of semaglutide were investigated in patients with biopsy-defined MASH and liver fibrosis (stages 1, 2 and 3). A significantly higher percentage of patients who received semaglutide compared to placebo had resolution of steatohepatitis with no worsening of fibrosis (59% vs. 17%). Now, based on an interim analysis of a phase III trial published in the *New England Journal of Medicine* (NEJM) in June 2025, the FDA has approved the use of semaglutide for treatment of MASLD/MASH. This publication was a planned interim analysis of the first 800 patients at week 72 of the study.

All patients had biopsy-proven disease that included both MASH and fibrosis stages 2 or 3 and were randomized to semaglutide 2.4 mg once weekly vs placebo. Approximately 73% of the patients were obese, and 56% had DM2, with 14% of the patients having MASLD that was not related to obesity or diabetes. After 72 weeks, resolution of steatohepatitis without worsening of fibrosis occurred in 62.9% in the semaglutide group and in 34.3% in the placebo group (estimated difference, 28.7 percentage points). A reduction in liver fibrosis without worsening of steatohepatitis was reported in 36.8% of the patients in the semaglutide group and in 22.4% of those in the placebo group (estimated difference 14.4 percentage points). Results for the 3 secondary outcomes were as follows:

- Combined resolution of steatohepatitis and reduction in liver fibrosis was reported in 32.7% of the patients in the semaglutide group and in 16.1% of those in the placebo group.
- Mean change in body weight was -10.5% with semaglutide and -2.0% with placebo.
- Improvement curve for liver fibrosis had begun to level off at 24 weeks while the curve for MASH was not shown.

Therefore, it will be important to see how much further resolution there will be in both steatohepatitis and fibrosis at trial conclusion.

Lorundrostat efficacy and safety in patients with uncontrolled hypertension

We know from the Pathway studies published in *The Lancet*⁹ that mineralocorticoid receptor antagonists (MRA) and amiloride are the most effective fourth drugs in patients whose hypertension remains uncontrolled on a 3-drug regimen that includes a thiazide, ACE/ARB and amlodipine. A new class of antihypertensives is under development by multiple pharmaceutical companies. These drugs are direct inhibitors of aldosterone synthetase. They work similarly to the MRAs. However, by directly impacting synthesis rather than blocking receptor binding, they could potentially be more potent. A recent study looked at lorundrostat in patients with uncontrolled hypertension.¹⁰

Patients with systolic blood pressure (BP) between 130 and 180 mm Hg were enrolled after stabilization with the above noted 3-drug regimen. Of the 285 patients, 188 were treated with lorundrostat (half each in fixed dose and dose-adjusted regimens) and 94 patients received placebo. At 12 weeks, relative to the placebo group that had a 7 mm Hg reduction in systolic BP, the fixed and adjusted groups on lorundrostat had reductions of 15 mm and 14 mm Hg on 24-hour continuous ambulatory BP monitoring. These results are consistent with those seen in the above-mentioned Pathway study. Black and white patients had similar BP reductions. A potassium level above 6.0 mmol per liter occurred in 5 participants (5%) in the stable-dose group, 7 (7%) in the dose-adjustment group, and no participants in the placebo group. The small decline in eGFR commonly observed when treatment with MRAs is initiated was also seen here. These transient reductions are thought to be related to the lowering of intraglomerular pressure and may signify a therapeutic effect rather than indicating harm.

GLP-1 RA use and long-term CNS outcomes in obese patients with diabetes

With the widespread use of this drug class, there is increasing interest in both on-target effects. A recent retrospective propensity matched cohort analysis looked at the new onset of neurological diagnoses in patients on tirzepatide (GLP-1 RA/GIP combination) or semaglutide compared to patients on other drugs for DM2.¹¹ Approximately 30,000 GLP-1 RA users were propensity score matched with 30,000 patients using other drugs for DM2 and followed for 7 years. The median age was 58 years.

Over the 7 years of follow-up, the GLP-1 RA group had a 37% lower risk of dementia (although the absolute risk reduction was only 0.33%). There was no reduction in the risk of mild cognitive impairment. There was a 19% lower risk of stroke (absolute risk reduction 3.5%). There was a 30% lower risk of overall mortality in the GLP-1 RA group (absolute risk reduction 2.4%). There was no reduction in the risk of Parkinson's disease.

Since dementia, stroke and overall mortality are all increased in DM2 and the metabolic syndrome, the underlying mechanism of the GLP-1 RA benefit might be an improvement in insulin resistance, systemic inflammation and overall metabolic status. This aligns with the observation that the risk of Parkinson's disease was unaffected by GLP-1 RA use.



Patent foramen ovale and the risk of stroke

A recent review of patent foramen ovale (PFO) and stroke was published in JAMA and forms the data source for this article.¹² Evaluating the benefit of PFO closure in younger patients who present with cryptogenic stroke and are found to have a PFO has been very difficult. This is largely related to the fact that PFO is found in 25% of the general population. However, in younger patients (< 60 years of age) who present with cryptogenic TIA or stroke, the rate of PFO is 50%. As studies of PFO closure have accrued and long-term outcomes documented in these younger individuals, a clearer picture of who is likely to benefit from PFO closure is emerging.

The 2 potential reasons for PFO resulting in cryptogenic stroke are:

- 1. Embolic tissue moving from right to left across a PFO, causing cerebral embolism
- 2. Potentially in situ thrombus formation around the interatrial tunnel, giving rise to a cerebral embolism

There are 2 main structural factors that contribute to the probability of cryptogenic stroke arising from a PFO. One is a large shunt through the PFO, and the other is an atrial septal aneurysm. These can both be documented with an echocardiogram or bubble study.

In addition to the above specifics of the PFO, the associated clinical factors are critical to the decision-making in terms of who might benefit from PFO closure. Age and stroke related comorbidities associated with an increased stroke risk (predominantly HTN, tobacco use, hyperlipidemia and DM2) are pivotal. Although PFO could be a potential etiology of cryptogenic stroke in patients over age 60, the risks of age- and stroke-related comorbidities eclipse PFO as the likely cause of stroke such that PFO closure in this age group is not likely to diminish the risk of recurrent stroke. Other clinical factors that increase the likelihood of PFO being etiologically related to a stroke are a cortical infarct on imaging, Valsalva maneuver being temporally related to stroke onset, and other risk factors or the diagnosis of DVT and/or hypercoagulability.

To assist in determining the probability of a cryptogenic stroke being caused by a PFO, 2 scores have been developed and validated.

- The first is the RoPE score. It was developed from an analysis of 8 databases that included 3,023 patients with cryptogenic stroke who were systematically evaluated for PFO. The RoPE score includes 6 clinical characteristics (age, history of stroke or TIA, diabetes, hypertension, smoking, cortical infarct on imaging) and ranges from 0 to 10. (Table 1 top). This has high utility in associating a cryptogenic stroke with PFO. For example, among patients in the lowest RoPE score category (score < 3, older patients with multiple stroke risk factors), the prevalence of PFO was 23%, like that in the general population, suggesting a PFO-attributable fraction near zero. However, the prevalence of PFO in patients with cryptogenic stroke and a RoPE score of 9 or 10 was 77%, suggesting a 90% likelihood that the stroke was attributable to a PFO.
- The second score is an extension of the RoPE score. The PFO-Associated Stroke Causal Likelihood (PASCAL) uses the RoPE score and adds to it the high-risk anatomical features defined by echo (atrial septal aneurysm or large right to left shunt through the PFO). Based on the PASCAL classification system, PFO is considered the "probable," "possible" or "unlikely" cause of an otherwise cryptogenic stroke (Table 1 bottom).

Table 1. Calculation of the RoPE score and PASCAL classification^a

Characteristic	Points			
RoPE score calculator ^b				
No history of hyperter	1			
No history of diabetes		1		
No history of stroke or	transient ischemic attack	1		
Nonsmoking	1			
Cortical infarct on ima	1			
Age, years				
18-29		5		
30-39		4		
40-49		3		
50-59		2		
60-69		1		
≥70		0		
Total RoPE Score (sum o	X			
PASCAL classification system ^c				
High RoPE score (≥7)	High-risk PFO feature (LS and/or ASA)	PFO-related stroke		
Absent	Absent	Unlikely		
Absent	Present	Possible		
Present	Absent	Possible		
Present	Present	Probable		

Abbreviations: ASA, atrial septal aneurysm (defined as ≥10 mm of excursion from midline); LS, large shunt (defined in the database as >20 bubbles in the left atrium on transesophageal echocardiogram); PASCAL, PFO-Associated Stroke Causal Likelihood; PFO, patent foramen ovale; RoPE, Risk of Paradoxical Embolism.

- d. Adapted with permission from Neurology.³⁸
- e. The RoPE score assesses the probability that a PFO discovered in the setting of an otherwise cryptogenic stroke was pathogenically related to the stroke rather than an incidental finding. The RoPE score ranges from 0 to 10, with scores of 0 to 3 indicating a negligible likelihood that the stroke is attributable to the PFO and a score of 10 indicating an approximately 90% probability that the stroke is attributable to the PFO.
- f. PASCAL combines the RoPE score with the presence or absence of high-risk PFO features to determine the likelihood that the PFO was causally related to the index stroke.

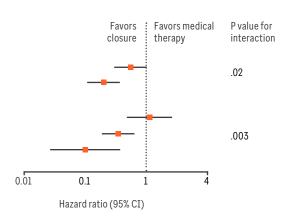
So how best to put all this information to use? The first 3 large RCTs comparing PFO closure/aspirin therapy to medical treatment of stroke showed no reduction in recurrent stroke rate. However, the RESPECT trial 6-year follow-up data showed a rate of recurrent ischemic stroke of 3.6% in the PFO closure group versus 5.8% in the medical therapy group (hazard ratio 0.55). Three subsequent trials also showed benefit, and a meta-analysis of all 6 trials reported a lower rate of recurrent ischemic stroke with PFO closure (2%) versus medical therapy alone (4.6%) (relative risk, 0.44 at a median follow-up of 57 months). Based on these results, guidelines now recommend PFO closure in selected patients (predominantly those patients aged < 60 years with cryptogenic stroke).

Figure 3B shows the absolute risk reduction for recurrent stroke as a function of PASCAL score at 2.1% for both probable and possible PFO-related etiology, compared to -0.7% for the low probability group. The NNT to prevent recurrent stroke was 47 in both the probable and possible categories. It should be noted that PFO closure is associated with new onset atrial fibrillation at a rate of ~3.7%, although this is often transient. However, any strokes related to periprocedural atrial fibrillation would have contributed to the stroke rates reported in the PFO closure group. For those patients not undergoing PFO closure in the probable and possible related categories, across the 6 studies in the aforementioned meta-analysis, anticoagulation was associated with a lower risk of recurrent stroke (3.2%), compared to antiplatelet therapy (5.5%). There is not adequate RCT data to determine which, if any, patients over age 60 may benefit from PFO closure.

Figure 3. Recurrent Ischemic Stroke Heterogeneity of Treatment Effect (HTE) Analyses for RoPE and PASCAL

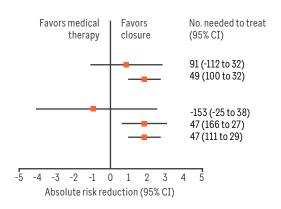
A. Hazard ratios of the primary outcome of recurrent ischemic stroke

	Device, overall events/No. of patients	Medical therapy, overall events/ No. of patients	Hazzard ratio (95% CI)
RoPe categories			
<7	29/700	41/704	0.61 (0.37 to 1.00)
≥7	11/1189	41/1147	0.21 (0.11 to 0.42)
PASCAL categories			
Unlikely	17/293	11/254	1.14 (0.53 to 2.46)
Possible	19/897	46/914	0.38 (0.22 to 0.65)
Probable	3/700	25/683	0.10 (0.03 to 0.35)



B. Absolute risk reductions of the primary outcome of recurrent ischemic stroke

	Device, 2-y events/ No. (%)	Medical therapy, 2-y events/ No. (%)	Absolute risk reduction at 2 y (95% CI)
RoPe categories			
<7	20/700 (2.9)	27/704 (4.0)	1.1 (-0.9 to 3.1)
≥7	7/1189 (0.6)	28/1147 (2.6)	2.1 (1.0 to 3.1)
PASCAL categories			
Unlikely	11/293 (4.1)	8/254 (3.4)	-0.7 (-4.0 to 2.6)
Possible	13/897 (1.5)	31/914 (3.6)	2.1 (0.6 to 3.6)
Probable	2/700 (0.3)	16/683 (2.5)	2.1 (0.9 to 3.4)



Statistically significant heterogeneous treatment effects of patent foramen ovale (PFO) closure were seen for patients subgrouped both by Risk of Paradoxical Embolism (RoPE) score and by PFO-Associated Stroke Causal Likelihood (PASCAL). The hazard ratios observed by RoPE strata correspond very closely to anticipated relative event rate reductions shown in Table 1. Patients classified as PASCAL "unlikely" do not benefit from PFO closure. The hazard ratios in this figure are adjusted for age, sex, prior myocardial infarction, diabetes, hypertension, hyperlipidemia, prior stroke or transient ischemic attack, smoking status, index event (stroke vs transient ischemic attack), atrial septal aneurysm, shunt size and superficial infarction on neuroimaging. Two-year absolute risk reductions are calculated as differences in Kaplan-Meier event rates at 2 years.

Republished from JAMA.59

CCTA versus cardiac risk scoring for changing lifestyle behaviors and preventive therapy

Abundant literature now supports the use of coronary artery CTA (CCTA) over ischemia testing for most patients with stable chest pain. This approach reduces unnecessary heart catheterizations by 75% and unnecessary coronary stenting by 25%-40%.13,14 Added to this body of literature is a new sub-study of the SCOT-HEART trial designed to determine the impact of CCTA on healthy lifestyle behaviors, acceptance of recommended treatments, and modification of risk factors as compared with guideline-directed cardiovascular risk scoring.¹⁵

Four hundred patients were examined, half who underwent CCTA and half with treatment recommendations based on risk scoring. In the CCTA group, compared with cardiovascular risk scoring, fewer participants were recommended preventive therapy after CCTA, - 51% versus 75%, as the absence of plaque in many patients in the CCTA group precluded the need for pharmacotherapy. On the other hand, acceptance of recommendations was higher in the CCTA group (77% versus 46%), likely due to the participant knowledge of the existence of coronary artery atheroma. There was also greater use of antiplatelet therapy in the CCTA group versus those in the risk scoring group (40% versus 0.5%), likely related to the clinician recommendation in the presence of observed coronary atheroma.

Ischemia testing is typically negative in patients with significant coronary atheroma when there is an absence of any flowlimiting stenoses. On the other hand, CCTA adds the opportunity to both intensify therapy and improve patient compliance in the presence of non-flow-limiting plaque and avoid pharmacotherapy in the absence of atheroma. This has been shown in the primary SCOT-HEART trial¹⁶ to reduce MACE by about 40% at 5 years post CCTA. These results add to the existing body of literature supporting the move away from ischemia testing and towards CCTA.

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Kenneth Roy Cohen, MD, FACP

Dr. Kenneth Cohen is an experienced physician leader, practicing internist and researcher who has attained national recognition for health care quality improvement. He was one of the founding physicians of New West Physicians, which is the largest primary care group practice in Colorado and now part of Optum Care. He served as chief medical officer from 1995 to 2020. He now serves as the executive director of Translational Research for Optum Care and co-leads the Optum Center for Research and Innovation. Dr. Cohen has received awards of recognition and distinction for teaching, including the Lutheran Medical Center Physician of the Year award in 2011. Under his stewardship, New West Physicians was awarded the AMGA Acclaim award in 2015 and the CDC Million Hearts Hypertension Champion Award in 2017. He is a clinical associate professor of Medicine and Pharmacy at the University of Colorado School of Medicine and School of Pharmacy. He is a Fellow of the American College of Physicians and a member of the Phi Beta Kappa and Alpha Omega Alpha honor societies.



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