In Focus

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Notable in Neurology this week

This issue features an article that investigates transthoracic echocardiogram cardiac structure/function measures association with cardioembolic stroke and atrial fibrillation; another identifies a correlation of brain vascular changes and cortical volumes on MRI to late-onset epilepsy. A featured Contemporary Issues article investigates transitional care, from hospital to home, for stroke patients.

Articles

Variability in reported physician practices for brain death determination

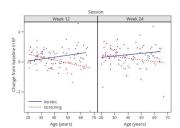
Diagnosing brain death is a complex clinical test, and—if asked—only clinicians with sufficient and ongoing experience should be involved in testing. The reported survey suggests that some physicians may have an incomplete understanding of the brain death examination procedure. Standardized training regarding brain death could improve proficiency.

Page 405

From editorialists Bernat & Brust: "The present findings are not simply innocuous practice variations to be expected among physicians; they produce serious consequences. Their evidence of deficiencies in the quality of care is obvious."

Page 401

Effect of aerobic exercise on cognition in younger adults: A randomized clinical trial



Controlled exercise studies for cognition have generally been restricted to elderly individuals. In this study, aerobic exercise in healthy individuals aged 20–67 years improved executive function (more so with increasing age) and increased cortical thickness in a left frontal region. Aerobic exercise contributes to brain health in individuals as young as 20.

Page 407

Neuroimaging findings in midlife and risk of late-life dementia over 20 years of follow-up

The preclinical phase of dementia provides a crucial timeframe for therapeutic intervention. In middle-aged adults without clinical stroke, a greater burden of MRI-detected white matter hyperintensities and ventricular enlargement predicted an increased rate of dementia during 20 years of follow-up. These results have implications for early identification of high-risk individuals. Page 408

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In Focus

Serum magnesium and calcium levels in relation to ischemic stroke: Mendelian randomization study

Observational studies have shown that low magnesium status is associated with an increased risk of stroke. In this Mendelian randomization study, genetically higher serum magnesium concentrations were inversely associated with cardioembolic stroke. Raising serum magnesium concentrations may potentially reduce cardioembolic stroke risk.

Page 411

From editorialists Anderson & Rosand: "Taken together, these results highlight the utility of genotyping large populations of well-characterized stroke cases for medical genetics research, offering testable hypotheses that may uncover novel magnesium-dependent pathways that can be leveraged to mitigate cardioembolic stroke risk."

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NB: "Pearls & Oy-sters: Giant descending aortic arch donut sign: Retrograde embolism as a cause of acute ischemic stroke," p. 443. To check out other Resident & Fellow Pearls & Oy-sters, point your browser to Neurology.org/N and click on the link to the Resident & Fellow Section. At the end of the issue, check out the Clinical/Scientific Note discussing a patient with late-onset neutropenia following ocrelizumab therapy for multiple sclerosis. This week also includes a Reflections: Neurology and the Humanities poem titled "Mind's autumn."

NEW EPISODE



February 26, 2019

CME Opportunity:

Listen to this week's *Neurology* Podcast and earn 0.5 AMA PRA Category 1 CME Credits[™] by answering the multiple-choice questions in the online Podcast quiz.

Quality improvement in neurology: Universal neurology quality measurement set: Executive summary (see p. 418)

- 1. Quality improvement in neurology: Universal neurology quality measurement set: Executive summary
- 2. What's Trending: The 2018 report of the Lancet Countdown on health and climate change: Shaping the health of nations for centuries to come

In the first segment, Dr. Stacey Clardy talks with Dr. Wayne Anderson and Dr. Justin Martello about their paper on quality improvement in neurology. In the second part of the podcast, Dr. Jason Crowell focuses his interview with Dr. Nick Watts on climate change shaping the health of nations for centuries to come

Disclosures can be found at Neurology.org.



Spotlight on the February 26 issue

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