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Richard D. deShazo, Sara B. Parker, Daniel Williams, John B. Ingram, Mahmoud Elsohly, Kathryn Rodenmeyer, and Kyle McCullough
Long-term consequences of street marijuana use are unclear; recent studies raise red flags about its effects. Changes in brain maturation and intellectual function have been noted in chronic users and appear permanent in early users. A review of recent studies suggests that regular marijuana use should be discouraged in individuals under the age of 21.

- 286 **Management of Acute Ischemic Stroke**
Yunyun Xiong, Bharti Manwani, and Marc Fisher

The treatment of acute ischemic stroke includes both intravenous thrombolysis and mechanical thrombectomy. Important advances regarding both treatment modalities have occurred recently that demonstrate the remarkable efficacy of these regimens for appropriately selected patients. All physicians who see patients at risk for or who have a stroke should be aware of these developments.

- 292 **Sleep Disorders**
Milena K. Pavlova and Véronique Latreille

Sleep disorders can have serious consequences on patients' health and quality of life. Most sleep disorders can be managed easily with adequate interventions. The authors here review the main diagnostic features of 6 major sleep disorders, to aid medical practitioners in screening and treating these disorders as part of clinical practice.

- 300 **Spinal Emergencies in Primary Care Practice**
Jacob M. Babu, Shyam A. Patel, Mark A. Palumbo, and Alan H. Daniels

Atraumatic spinal injuries may present a diagnostic and management dilemma for healthcare practitioners. Permanent neurologic sequelae and even death can result if delays in diagnosis and appropriate treatment occur. Key features of these pathological entities are presented here, with an emphasis on appropriate diagnostic strategy to intervene efficiently and minimize morbidity.



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307 Betrixaban: Safely Reducing Venous Thromboembolic Events with Extended Prophylaxis

Paul P. Dobesh and Brian J. Trevarrow

Betrixaban, a new direct oral anticoagulant with minimal renal elimination and once daily dosing, is the only anticoagulant to demonstrate a significant reduction in venous thromboembolism without increasing major bleeding, and is the only drug to receive FDA approval for extended prophylaxis in acute medically ill patients.

312 Canakinumab: Promises and Future in Cardiometabolic Diseases and Malignancy

Aneesh Dhorepatil, Somedeb Ball, Raktim K. Ghosh, Meera Kondapaneni, and Carl J. Lavie

Analysis of data from the CANTOS trial shows that interleukin beta (IL-1 β) inhibition with canakinumab was found to have beneficial effects in cardiometabolic diseases characterized by inflammation, including diabetes, stroke, and chronic kidney disease, as well as in patients with lung cancer.

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335 Reinfarction in Patients with Myocardial Infarction with Nonobstructive Coronary Arteries (MINOCA): Coronary Findings and Prognosis

Anna M. Nordenskjöld, Bo Lagerqvist, Tomasz Baron, Tomas Jernberg, Nermin Hadziosmanovic, Harmony R. Reynolds, Per Tornvall, and Bertil Lindahl

Mortality associated with recurrent reinfarction is substantial, whether or not coronary artery disease is present. A review of risk factors for coronary artery disease should be considered for all patients with MINOCA; angiography should be strongly considered in patients with myocardial infarction after MINOCA.

347 Cannabis Legalization Does Not Influence Patient Compliance with Opioid Therapy

Sheng-Ying Lo, Gabrielle N. Winston-McPherson, Amy J. Starosta, Mark D. Sullivan, Geoffrey S. Baird, Andrew N. Hoofnagle, and Dina N. Greene

Little is known about how legalization of recreational cannabis impacts compliance with prescribed opioid therapy. In this research, results of urine drug tests for patients at high-risk for opioid misuse were analyzed before and after legalization of recreational cannabis in Washington State. Although no change in the overall compliance rate was observed, the authors speculate that legalization of recreational cannabis may result in improved safety outcomes for patients prescribed chronic opioid therapy.

354 Adherence and Outcomes with Urate-Lowering Therapy: A Site-Randomized Trial

Ted R. Mikuls, T. Craig Cheetham, Gerald D. Levy, Nazia Rashid, Artak Kerimian, Kimberly J. Low, Brian W. Coburn, David T. Redden, Kenneth G. Saag, P. Jeffrey Foster, Lang Chen, and Jeffrey R. Curtis

A pharmacist-led intervention incorporating automated telephone technology resulted in significant improvements in gout care. Patients with gout receiving this intervention were more adherent to therapy and more likely to achieve improved serum urate goals. However, additional patient engagement may be needed to achieve better outcomes for more patients.

362 High-Sensitivity Cardiac Troponin I Levels in Normal and Hypertensive Pregnancy

Jeganathan Ravichandran, Shu Yuan Woon, Yek Song Quek, Yee Chern Lim, Eliza Mohd Noor, Kumar Suresh, Ramakrishnan Vigneswaran, Vlad Vasile, Anoop Shah, Nicholas L. Mills, Jeganathan Sikkan, Agim Beshiri, and Allan S. Jaffe

This study was initiated to examine the association of circulating concentrations of high-sensitivity cardiac troponin I in the various trimesters of pregnancy in patients with and without hypertension. Cardiac troponin was found to be a strong independent predictor of pregnancy-induced hypertension or preeclampsia in pregnant and postnatal women.

367 Serum Insulin and Cognitive Performance in Older Adults: A Longitudinal Study

Babak Hooshmand, Minna Rusanen, Tiia Ngandu, Jaana Leiviskä, Shireen Sindi, Christine A.F. von Arnim, Peter Falkai, Hilikka Soininen, Jaakko Tuomilehto, and Miia Kivipelto

In dementia-free older adults, elevated serum insulin and insulin resistance are related to worse cognitive functioning after 7 years. Once dementia becomes more advanced, insulin resistance may not be an important determinant of disease progression. Further studies are needed to identify characteristics of a high-risk profile, and whether lifestyle or pharmacological interventions would affect outcomes.

374 Personality Traits in Patients with Myocardial Infarction with Nonobstructive Coronary Arteries

Daniella Nero, Stefan Agewall, Maria Daniel, Kenneth Caidahl, Olov Collste, Christina Ekenbäck, Mats Frick, Loghman Henareh, Tomas Jernberg, Karin Malmqvist, Karin Schenck-Gustafsson, Jonas Spaak, Peder Sörensson, Örjan Sundin, Shams Y-Hassan, Claes Hofman-Bang, and Per Tornvall

Little is known about personality traits in myocardial infarction with nonobstructive coronary arteries. When MINOCA patients were compared with controls in this study, Type A behavior pattern and trait anger did not reveal differences in incident rate. These personality traits are therefore not likely to be associated with MINOCA.

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