

Research

Insulin Analogues and Hypoglycemia in Type 1 Diabetes 33

In patients with type 1 diabetes, the risk of hypoglycemia is a barrier to glycemic control. Lane and colleagues conducted a randomized, crossover noninferiority trial of 501 patients with type 1 diabetes and found that treatment for 32 weeks with insulin degludec compared with insulin glargine U100 resulted in a reduced rate of symptomatic hypoglycemia. In an Editorial on this and another article in this issue, Seaquist and Chow discuss the importance of preventing hypoglycemic episodes in the treatment of type 1 and type 2 diabetes.

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Insulin Analogues and Hypoglycemia in Type 2 Diabetes 45

The frequency of hypoglycemia in patients with type 2 diabetes may be related to the day-to-day variability of insulin analogues. In a treat-to-target crossover trial of 721 patients with type 2 diabetes, Wysham and colleagues found that treatment for 32 weeks with insulin degludec compared with insulin glargine U100 resulted in a reduced rate of symptomatic hypoglycemia.

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Deep Cooling for Hypoxic-Ischemic Encephalopathy 57

Hypothermia at 33.5°C for 72 hours initiated within 6 hours of birth improves survival of newborn infants with hypoxic-ischemic encephalopathy. In a randomized clinical trial by Shankaran and colleagues to test whether longer or deeper cooling might further decrease the rate of death or disability, 364 neonates with hypoxic-ischemic encephalopathy were randomized to receive 1 of 4 hypothermia regimens. Cooling for longer than 72 hours, cooling to lower than 33.5°C, or both did not reduce death or moderate or severe disability at 18 months of age.

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Editor In Chief
Howard Bauchner, MD

133 YEARS
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Research (continued)

Radiofrequency Denervation for Chronic Low Back Pain 68

Radiofrequency denervation uses electric current to damage pain-conducting nerves and prevent the conduction of nociceptive impulses. In 3 randomized clinical trials of 681 patients with chronic low back pain, Juch and colleagues found that radiofrequency denervation combined with a standardized exercise program did not result in clinically important improvement in chronic low back pain compared with a standardized exercise program alone.

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Clinical Review & Education

Verification of Penicillin Allergy 82

Inaccurate or outdated reports of penicillin allergy necessitate the use of alternate antibiotics that may be less effective, may be more toxic, and may increase the risk of antibiotic resistance. This JAMA Insights article by Trubiano and colleagues discusses the importance of validation and desensitization of penicillin allergy to promote antimicrobial stewardship and improve the care of patients.

 Author Audio Interview jama.com CME jamanetwork.com/learning

A Woman With an Incidentally Discovered Adrenal Mass 84



This JAMA Clinical Challenge article by Taïeb and colleagues presents a 56-year-old woman with an incidentally discovered adrenal mass that had a heterogeneous appearance, a hypodense central area, and irregular margins. Imaging further characterized the mass as having high density and marked uptake of ¹⁸F-fluorodeoxyglucose. What would you do next?

From the Medical Letter: Anaphylaxis and Insect Stings and Bites 86

This *Medical Letter on Drugs and Therapeutics* article reviews the treatment of allergic reactions to insect stings and bites.



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Editor's Audio Summary

Howard Bauchner, MD, summarizes and comments on this week's issue.

CME Credit

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Author Interview



AUDIO Interview with Elizabeth Jane Phillips, MD, author of "Penicillin Allergy Is Not Necessarily Forever"

JN Challenge

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