Hydrocortisone and Septic Shock in Patients With Severe Sepsis 1775

Among patients with severe sepsis and septic shock, adjunctive hydrocortisone treatment may be of benefit when fluid resuscitation and vasopressor therapy are inadequate to restore hemodynamic stability. Whether hydrocortisone is efficacious for patients with severe sepsis without shock is not clear. In a multicenter randomized placebo-controlled clinical trial that enrolled 380 adult patients with severe sepsis without septic shock, Keh and colleagues found that compared with placebo, use of hydrocortisone—200 mg for 5 days followed by dose tapering until day 11—did not reduce the risk of septic shock within 14 days. In an Editorial, Yende and Thompson discuss unresolved questions about the use of corticosteroids in patients with sepsis.

Editorial 1769
CME jamanetworkcme.com

Intubation During Pediatric Cardiac Arrest and Survival 1786

Endotracheal intubation is common during pediatric in-hospital cardiac arrest. Andersen and colleagues assessed the relationship between intubation during pediatric cardiac arrest and patient outcomes in an analysis of 2000-2014 registry data from 2294 pediatric patients who experienced in-hospital cardiac arrest. Among the authors’ findings was that compared with no intubation, tracheal intubation during cardiac arrest was associated with decreased survival to hospital discharge. In an Editorial, deCaen and colleagues discuss whether and when to intubate during pediatric cardiopulmonary resuscitation.

Editorial 1772 Related Article 1818
Author Video Interview jama.com CME jamanetworkcme.com

Psychotropic Medications, Violent Reoffending After Prison 1798

Individuals released from prison have high rates of reoffending. In an analysis of Swedish registry data from 22 275 individuals released from prison in 2005 through 2010, Chang and colleagues found that rates of violent reoffending during a median 4.6 years’ follow-up were lower during periods when individuals were dispensed antipsychotics, psycho-stimulants, and drugs for addictive disorders, compared with periods in which they were not dispensed these medications. In an Editorial, Swanson discusses social environment and outcomes after incarceration.

Editorial 1771
CME jamanetworkcme.com
Research (continued)

Gene-Corrected Epidermal Grafts in Epidermolysis Bullosa 1808
Recessive dystrophic epidermolysis bullosa—a severe inherited blistering disease characterized by painful erosions—is caused by mutations in a gene encoding type VII collagen. In a phase 1 trial involving 4 patients with the disease, Siprashvili and colleagues evaluated safety and wound outcomes following placement of type VII collagen gene-corrected epidermal grafts onto 6 skin wounds of each patient. The authors report that all 24 grafts were well tolerated without serious adverse events. Wound healing occurred in some grafts, but the response was variable among patients and grafted sites and generally declined over 1 year.

Clinical Review & Education

Confounding by Indication in Clinical Research 1818
When evaluating the effect of a treatment or risk factor (an "exposure") on a patient outcome, the possibility of confounding by some other factor must be considered. This JAMA Guide to Statistics and Methods article by Kyriacou and Lewis addresses confounding by indication, a specific type of confounding that occurs when the criteria for selecting a particular treatment also affect the outcome. Limitations of research methods and analytic techniques to control for confounding and factors to consider when interpreting clinical study results for evidence of confounding are discussed.

Related Article 1786
Buprenorphine Implants for Opioid Dependence 1820
This Medical Letter on Drugs and Therapeutics article provides information about subdermal implants of the partial opioid agonist buprenorphine (Probuphine), which has been approved for maintenance treatment of opioid dependence. Probuphine is approved for use in patients with opioid dependence who are stable on low to moderate dosages (≤8 mg/d) of transmucosal buprenorphine. One unpublished clinical trial involving 177 patients found that buprenorphine implants were not inferior to sublingual buprenorphine with naloxone in maintaining clinical stability.