Dr. Raschke was out of town when Critical Care Journal Club was held this month. Dr. Tom Bajo, the senior critical care physician at Good Samaritan, moderated the journal club. We reviewed 5 articles and 1 editorial.


This is an important article for those who manage myocardial infarction with cardiogenic shock. The ACA/AHA guidelines recommend intraaortic balloon counterpulsation as a class I treatment for cardiogenic shock complicating acute myocardial infarction. However, the evidence is based mainly on registry data, and there is a paucity of randomized clinical trials. In this randomized, prospective, open-label, multicenter trial, 600 patients with cardiogenic shock complicating acute myocardial infarction were randomized to intraaortic balloon counterpulsation or no intraaortic balloon counterpulsation. All patients were expected to undergo early revascularization (by means of percutaneous coronary intervention or bypass surgery) and to receive the best available medical therapy. At 30 days, there were no significant differences in mortality or secondary end points or in process-of-care measures, including the time to hemodynamic stabilization, the length of stay in the intensive care unit, serum lactate levels, the dose and duration of catecholamine therapy, and renal function. This suggests that the urgency to use intraaortic balloon counterpulsation in patients with cardiogenic shock complicating acute myocardial infarction is low since it apparently does not alter any meaningful outcome.


This is an accompanying editorial of the Thiele study above. It reviews and accepts the findings. The editorial suggests that the ACA/AHA and other guidelines recommending intraaortic balloon counterpulsation need to be revised.


This retrospective study from Portugal reported on the results of 54 adult patients admitted for surgical drainage of deep neck infections and admitted to the intensive care unit (ICU) during a period of 52 months. A complicated course was defined as ICU stay >8 days, reintubation, tracheostomy, renal replacement therapy, critical illness, myopathy or mortality. Variables associated with the 30 patients (56%) who had a complicated course were a parapharyngeal or retropharyngeal location (as opposed to a peritonsillar location) and an elevated
APACHE II, SAPS II or SOFA score. The article emphasizes that the risk of complications from neck infection remain high and that those with the above characteristics bear careful observation.


No data on long-term outcomes of survivors of 2009 influenza A(H1N1) (A[H1N1])-associated ARDS are available. This study compared the 1-year outcomes of survivors of A(H1N1)-associated ARDS, according to use or no use of extracorporeal lung assist (ECLA), using its need as an ARDS severity surrogate. ECLA and no-ECLA group patients had comparable outcomes with minor lung disabilities with diminished diffusion capacities. However, most had psychologic impairment and poorer health-related quality of life than a sex- and age-matched general population group. This demonstrates that extracorporeal lung assistance appears to do no long-term harm in this group of patients above that induced by the underlying influenza. Although the majority of patients of patients recover physiologically, psychologic impairment continues to be a major complication of a severe ICU illness.


The Good Samaritan ICU group has seen a number of patients admitted for abuse of “bath salts”. This is a good review for those who might care for these patients. Bath salts contain the “designer” drug methylenedioxypyrovalerone (MDPV) which has recently classified as a controlled substance in the United States but is still illegally available via the Internet. MDPV is a synthetic central nervous system stimulant and is taken to produce a cocaine- or methamphetamine-like high. Clinicians need to be especially vigilant in that MDPV is not detected by routine drug screens and overdoses can be life-threatening. Administered via oral ingestion, nasal insufflation, smoking, intravenous or intramuscular methods, or the rectum, the intoxication lasts 6 to 8 hours and has high addictive potential. Symptoms are similar to the sympathetic stimulation seen with cocaine or methamphetamine overdose and include tachycardia, hypertension, arrhythmias, hyperthermia, sweating, rhabdomyolysis, and seizures to those as severe as stroke, cerebral edema, cardiorespiratory collapse, myocardial infarction, and death. Behavioral effects include panic attacks, anxiety, agitation, severe paranoia, hallucinations, psychosis, suicidal ideation, self-mutilation, and behavior that is aggressive, violent, and self-destructive. Treatment is principally supportive and focuses on counteracting the sympathetic overstimulation, including sedation with intravenous benzodiazepines, seizure-prevention measures, intravenous fluids, close (eg, intensive care unit) monitoring, and restraints to prevent harm to self or others.
Clinical presentation is often complicated by coingestion of other psychoactive substances that may alter the treatment approach.


Incorporation of evidence-based medicine into everyday practice is one method to optimize care; however, intensivists have struggled to define optimal practices because clinical trials in the ICU have yielded conflicting results. The net effect is that hospitals, physicians, and staff have expended tremendous time and resources implementing new protocols that incorporate emerging evidence from the medical literature, only to remove such protocols a few years later when validation trials fail to confirm the initial results. Recent examples in which this “roller coaster” has occurred include the use of corticosteroids in septic shock, tight glucose control, and, most recently, activated protein C in severe sepsis. Dr. Goodwin explains this recurring phenomenon on publication bias and the law of diminishing returns. It is well established that a publication bias exists such that trials showing a significant positive effect tend to be published more than trials which show no effect. The law of diminishing returns states that as multiple new interventions are used simultaneously, the benefit of each individual intervention decreases and, therefore, is harder to detect. The question then remains: What can we do to avoid the frustrating cycle of changing ICU practice based on one study only to change back a few years later when a trial with conflicting results is published? Dr. Goodwin suggests the critical care community, as a group, use a critical eye when evaluating new studies. Before implementation, validate single-center or other provocative studies need to be validated using nonindustry financial support and multicenter comparative effectiveness studies. Our group of fellows and attendings overwhelmingly agreed. However, it was pointed out that with the ever increasing numbers of guidelines (>15,000 listed in the National Guideline Clearinghouse), the loss of physician autonomy, the direction of healthcare by the under-qualified and nonresponsible, and with the bundling of guidelines there appears to be little that an individual critical care physician can do. In the end, it is important to remember that just because an intervention was published, it is not necessarily standard of care. Only we, as critical care physicians, should establish that standard of care.

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