
To think that the power of genetic code is not being bent toward weapons is to ignore the growing body of evidence, the lessons of history, and the reality of human nature. As Thucydides pointed out, hope is an expensive commodity. It makes better sense to be prepared.

— Richard Preston, 1997

If the bioterrorism review in this issue chilled you, The Cobra Event will make you hypothermic. It is riveting, well researched, and loaded with historical and scientific detail about “black biology” — biological warfare. Like The Hot Zone, Preston’s previous bestseller, The Cobra Event is part literary journalism and part fiction. The subject is a bioterrorism incident that seems all too possible and has direct relevance to emergency medicine.

The Cobra Event describes 10 days in the life of Dr. Alice Austen, an officer of the CDC’s Epidemic Intelligence Service. A seemingly routine autopsy catapults Austen into the outbreak investigation of a lifetime when a deranged scientist (Archmedes) attempts to unleash the ultimate virion. Archmedes, the disgruntled ex-employee of a genetic engineering corporation, conducts black biology on the side. Through an escalating series of “human trials” he attempts to assess the effect of his viral agent before implementing a large-scale release.

Okay. I admit it sounds like “Austin Powers versus Dr. Evil,” but there are a lot of gems in The Cobra Event. Preston deftly incorporates intriguing factual information, including discussions of secret US government biowarfare experiments during the 1960s, biological detonators, dry line source disseminators, RAID (rapid assessment and initial detection) teams, and GenBank — the NIH genetic sequence database. Before reading the book I was pretty naïve about biological warfare, so much of this information was news to me. I corroborated what I could in review articles and on the Internet, and was alarmed to discover it is all true. In fact, bioterrorism is now considered to be a potential emerging disease and is the subject of several papers in the journal Emerging Infectious Diseases.

Archmedes combines gene sequences from a rhinovirus and Variola major (smallpox) into a common moth virus, to produce the ideal biological weapon. Given what we know of these viruses, and what is possible with weaponized agents, this story is not inconceivable. Archmedes plans to release the agent in a subway system. I was amazed to learn that, in 1966, the US military conducted subway tests using Bacillus subtilis. They found that a closed system is an efficient way to disseminate airborne agents, and that bacterial release at a single station would infect an entire subway network because of air circulation induced by trains. In 1995, the radical Aum Shinrikyo sect chose the Tokyo subway system for their deadly release of sarin.

The Cobra Event will have you on the edge of your seat right up to the last page. I highly recommend it, both as a great escape and a source of information on a subject we should all know more about.

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References


Pediatric procedural sedation and analgesia is increasingly common in the ED; however, there is wide variability in practitioner knowledge, skill and technique. Complications can occur, and sedation remains highly controversial, especially when it relates to children. The aim of this book is to help physicians deliver analgesics and sedating agents in the safest possible fashion.

The book provides a focused review of the physiologic and pharmacological basis of pediatric procedural sedation. The editors assembled a superb group of physician authors to provide a practical but scientifically grounded interdisciplinary and evidence-based approach. Pharmacological agents are reviewed in depth, principles and management strategies are discussed, and guidelines for preparation, management, monitoring and discharge of sedated patients are provided. Common situations and procedures are covered. For each procedure there are specific approaches, special considerations and a decision tree. The book provides many clinical “pearls” aimed at the busy clinician.

Pediatric Procedural Sedation is a practical reference for all physicians and a valuable reference for any ED that deals with children and needs to establish or update procedural sedation policies.

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