

TO THE EDITOR: The incidence of postoperative infection in the study reported by Itani and colleagues was extraordinarily high. The search for a new antibiotic to reduce this rate of infection not only does not bring the rate of infection into an acceptable range but also ignores a critical cause of surgical-site infection — the surgical technique. In the prevention of wound infections, more antimicrobial agents for use as prophylaxis will never overcome errors in surgical technique.

Alan R. Spievack, M.D.

Harvard Medical School
Boston, MA 02115
arspievack@comcast.net

THE AUTHORS REPLY: Moine and Asehnoune note that the timing of the administration of antimicrobial agents, the dose, and the possible need for additional administration are important factors in the success of prophylaxis against surgical-site infection. The longer half-life of ertapenem, as compared with that of cefotetan, permits simpler dosing in longer procedures and in patients in whom the 60-minute window of administration is missed. In our analysis, a lower body-mass index, the use

of ertapenem, and a shorter duration of surgery were independent predictors of a better outcome, but the timing of prophylaxis was not.

Spievack points out that surgical technique is another important factor in the prevention of surgical-site infection. In our prospective study, patients were randomly assigned to receive either ertapenem or cefotetan and were operated on by the same groups of surgeons in 51 institutions. The rate of surgical-site infection in this study was similar to that in other studies¹ in which the proper definition of surgical-site infection and follow-up were instituted. This high rate of surgical-site infection reflects a problem in elective colorectal surgery that surgeons need to acknowledge and address. Although more antibiotics are not the solution, better antibiotics can help.

Kamal M.F. Itani, M.D.

Veterans Affairs Boston Healthcare System
West Roxbury, MA 02132
kitani@med.va.gov

Murray A. Abramson, M.D., M.P.H.

Merck
Rahway, NJ 07065

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International Aeromedical Evacuation

TO THE EDITOR: In their review of international aeromedical evacuation, Teichman and colleagues (Jan. 18 issue)¹ mention that infectious diseases are contraindications to aeromedical evacuation. In fact, because of the strict criteria on suitability for air transport of patients who have infectious diseases, even those with severe acute respiratory syndrome (SARS), the benefits of air transport clearly exceed the risk. During the SARS outbreak in Asia, patients with suspected SARS were safely transported by air with the use of an airtight portable isolation unit.² Negative-pressure portable isolation units are equipped with air-purifying respirators. The construction is light and durable and has working ports through which the medical crew can monitor patients and perform procedures. So far, four patients with active pulmonary tuberculosis have also been safely transported in such novel isolation units, with an average flight time of 8 hours. The medical crews reported no problems during or after transport³ (and unpublished data). Meticulous preparation for air transport and post-

transport monitoring are mandatory for transporting patients with communicable diseases who require respiratory isolation.

Shin-Han Tsai, M.D., Ph.D.

Wan Fang Hospital
Taipei 116, Taiwan

Wan-Lin Chen, M.D.

International SOS
Taipei 104, Taiwan

Wen-Ta Chiu, M.D., Ph.D.

Taipei Medical University
Taipei 110, Taiwan
wtchiu@tmu.edu.tw

1. Teichman PG, Donchin Y, Kot RJ. International aeromedical evacuation. *N Engl J Med* 2007;356:262-70.
2. Tsai SH, Tsang CM, Wu HR, et al. Transporting patient with suspected SARS. *Emerg Infect Dis* 2004;10:1325-6.
3. Tsai SH, Kraus JF, Wu HR, et al. The effectiveness of video-telemedicine for screening of patients requesting emerging air medical transport. *J Trauma* 2007;62:504-11.

TO THE EDITOR: Teichman et al. do not discuss the significant financial gains that air-ambulance

companies and local “expat clinics” serving them derive from evacuations. Such gains may lead to evacuations even when satisfactory local care is available. We have seen air evacuations of patients with uncomplicated dengue fever, with discharge of the patients the next day. A tourist who was evacuated by air ambulance to Bangkok because of “exfoliative dermatitis” was found instead to have a drug-related maculopapular rash. Evacuation companies and their “expat clinics” tend to downgrade local health care capabilities instead of seeking out capable local doctors with language and communication skills and developing cooperative care. This increases costs and hinders improvements of local facilities. Moreover, eagerness to evacuate can result in delay of urgent care.¹

Henry Wilde, M.D.

King Chulalongkorn Memorial Hospital
Bangkok 10330, Thailand

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TO THE EDITOR: Teichman and colleagues present a comprehensive guide to evacuation for medical emergencies in travelers. I recently volunteered at an AIDS clinic in East Africa and was asked to help evaluate and care for a Canadian missionary in whom an unstable cardiac arrhythmia had developed. Even though we were in a city with a regional referral hospital, the intensive care unit had few intravenous medications and no defibrillator. We decided to have the patient flown by air ambulance to Nairobi. Fortunately, he had purchased evacuation insurance and remained in stable condition during the 18 hours it took to get approval from the insurance company’s medical director and then to wait for daylight so that the plane could land.

The situation led to discussions among the expatriate doctors and researchers and the native medical officers and students about the blatant difference between the standard of care expected by travelers and that received by the natives dying (without even intravenous fluids or antibiotics) in the medical wards just next door. What about the ethics of international evacuation?

Katherine Brown, M.D.

David Powell Community Health Center
Austin, TX 78751
katherine.brown@ci.austin.tx.us

THE AUTHORS REPLY: We agree with Tsai et al. that as advanced equipment becomes available and reliable treatment protocols are developed, fewer medical conditions will be contraindicated aboard aircraft. However, portable isolation units used during domestic transfers may not effectively accommodate patients undergoing international aeromedical evacuations lasting longer than 2 to 4 hours.¹ Nor are these units likely to assuage concern about transporting patients who are harboring infectious diseases that have pandemic potential. Highly infectious diseases merit consideration that extends beyond individual patient or provider preferences and capabilities. During the 2003 SARS outbreak and aircraft-borne transoceanic spread, international aeromedical evacuations were sharply curtailed, governments prohibited entry to infected travelers, and hospitals refused admission of suspect patients.² Similar “social distancing measures” that are likely to ground aircraft have been incorporated into global containment operations, should epidemiologic signals indicate an approaching pandemic.³

Wilde’s assertion that financial gains were not discussed neglects our statements that “Financial considerations alter the transfer process when economic incentives become entangled with patient advocacy,” and that “an evacuation represents a substantial financial gain to the company that completes the transfer.” Nevertheless, we share his concern regarding the intrusion of economic triage into clinical decision making and recognize that no medical specialty or setting is immune to its distorting effects. For those who make decisions about international transfer, we hope our review offers rational guidance.

We are not aware of support for the concept that “expat clinics” downgrade local health care capabilities or hinder opportunities for improving local facilities. International health clinics are inclusive enterprises that care for a wide variety of patients (“local” patients account for more than 70% of the patient base at one author’s health center). International doctors who live in developing nations can provide high-quality care to all patients, train their colleagues in effective practices, and encourage their colleagues to remain in their home countries, rather than entice them to migrate to wealthier nations. Hence, international physicians are part of the solution to reducing global health disparities.

Brown is troubled by differences in the medical care received by wealthy travelers and that received by impoverished native citizens. Using the benefits of personal contingency planning for an injured or ill person presents less of an ethical dilemma than nationalized responses to incidents of mass disaster where “en masse scoop and run” of foreign nationals occurs against a backdrop of “sheltering in place” of local residents who are often more seriously injured.^{4,5} A noble strain of ignoring the boundaries of politics, race, and economics in order to provide care runs through the history of medicine. Embracing it could be the first step to erasing the blatant differences that Brown decries.

Peter G. Teichman, M.D., M.P.A.

Victoria Healthcare International
Ho Chi Minh City, Vietnam
keqfap@yahoo.co.nz

Yoel Donchin, M.D.

Hadassah Medical Organization
91120 Jerusalem, Israel

Raphael J. Kot, M.D.

Family Medical Practice Vietnam
Ho Chi Minh City, Vietnam

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Recombinant PTH for Initial Management of Neonatal Hypocalcemia

TO THE EDITOR: Neonatal hypocalcemia due to hypoparathyroidism can present as life-threatening seizures or tetany. Currently, initial management consists of the administration of calcitriol and high doses of calcium. In symptomatic children, to avoid extravasation, intravenous calcium is best administered through a central line, a procedure that requires proper expertise. However, central access carries the risks of infection and thrombosis. Correction of hypocalcemia with intravenous and oral calcium often takes a day or longer to achieve, leaving the infant at risk for seizures and tetany. Therefore, recombinant parathyroid hormone (teriparatide) should be a faster, safer, and more physiologic means of correcting hypocalcemia due to hypoparathyroidism.

A 17-day-old Hispanic boy was taken to an outlying emergency room with generalized seizure and profound hypocalcemia. A review of his history showed that he had had muscle twitches since the second day of life. The workup for sepsis, which included lumbar puncture, was negative. He was transferred to Children's Hospital in San Di-

ego, having already received a few intravenous boluses of calcium. A nadir calcium level of 4.9 mg per deciliter (with normal albumin) was associated with an elevated phosphorus level (10.1 mg per deciliter), a low magnesium level (1.6 mg per deciliter), and a normal alkaline phosphatase level (178 U per liter [normal range, 110 to 300 U per liter]).

Since the results of laboratory studies suggested hypoparathyroidism or pseudohypoparathyroidism, calcitriol was added, with a first dose of 0.5 μg , followed by 0.25 μg per day. The child was no longer having seizures, so a central line was not placed. Despite the administration of oral calcium gluconate every 4 hours and continuous peripheral infusion of diluted calcium gluconate (105 mg of elemental calcium per kilogram of body weight per day), his calcium level rose from 6.2 mg per deciliter to only 6.9 mg per deciliter one day after the addition of calcitriol. When teriparatide became available the next day, he received 5 μg subcutaneously, and his calcium level rose from 6.9 mg per deciliter to 9.3 mg per deciliter in less