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INFECTIOUS DISEASE ALERT

A twice-monthly update of developments in infectious disease, hospital epidemiology, microbiology, infection control, emporiatrics, and HIV treatment

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INSIDE

It's Time for West Nile Virus Again!

SPECIAL UPDATE

By Stan Deresinski, MD, FACP

West nile virus (wnv) was alien to north america before the summer of 1999. That year, WNV infection invaded New York City, establishing a beachhead that has now led to invasion of much of the United States, as well as intrusions into Mexico, Central America, and the Caribbean. WNV is clearly here to stay.

WNV was first detected in Uganda in 1937 with subsequent appearances in Asia, the Middle East, and Eastern Europe. With the exception of a 1957 nursing home outbreak in Israel in which a number of those affected developed infections of the central nervous system (CNS), it generally produced sporadic mild febrile illness, with occasional outbreaks. This pattern changed after 1996 with the occurrence in Israel of outbreaks associated with more severe illness and frequent CNS involvement, a pattern followed by the US experience. This similarity of clinical illness is no surprise since the virus detected in 1999 in New York is virtually genetically identical to that isolated from a dead goose found in Israel in 1998. While the numbers of cases of WNV infection in the United States were relatively small from 1999 through 2001, in 2002 an epidemiologic explosion occurred with 4156 cases, including 284 deaths, in 44 states plus the District of Columbia.[1]

WNV also demonstrated new methods of transmission and novel clinical syndromes. In addition to its usual mode of transmission by the bite of mosquitoes, WNV has been transmitted by percutaneous inoculation in laboratory accidents, by transfusion of blood products, via transplanted organs, via breast milk, and by the transplacental route.[2] The FDA hopes to introduce blood screening procedures this summer.

The most remarkable clinical findings have been the frequent occurrence of profound muscular weakness and of movement disorders. A syndrome closely resembling that of paralytic polio is, like that due to polio virus, the result of infection of anterior horn cells.[3] The observed movement disorders include tremors, myoclonus, and

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Parkinson's-like findings.

Diagnosis depends upon antibody tests and genome detection by polymerase chain reaction. Treatment remains supportive, although both ribavirin and interferon alpha are active against the virus in vitro. A therapeutic trial examining the safety of the latter agent received FDA approval in January of this year. This study, whose principal investigator is at New York Hospital in Queens, will enroll 40 patients with WNV encephalitis.

It is believed that yellow fever virus and its vector were introduced into the Americas in the 16th or 17th centuries as the result of the slave trade. The US Congress was driven from Philadelphia in the summer of 1793 by a yellow fever epidemic. Although eradicated from North America, yellow fever persists in tropical South America. Centuries later, another flavivirus, WNV, has found its way to the Americas and is in expansive mode, surprising us with some of its manifestations. It's time to get ready for the 2003 version of WNV infection in North America. At the same time, we should begin to look ahead—Could Japanese encephalitis virus, yet another flavivirus, make its way into North America? ■

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In order to reveal any potential bias in this publication, we disclose that Dr. Deresinski serves on the speaker's bureau of Merck, Glaxo-SmithKline, Ortho, Bayer, and Pfizer. Dr. John is a consultant for Cubist, Roche, and Bio-Merieux, is on the speaker's bureau of Merck, Pharmacia, GlaxoSmithKline, Bayer, and Wyeth, and does research for Merck. Dr. Kemper serves on the speaker's bureau of Virologic, GlaxoSmithKline, Pfizer, and Agouron and is involved in research with Chiron, Merck, Agouron, and Virologic. Dr. Schleis is on the speaker's bureau for Aventis and Bayer and is a consultant for FFF Enterprises, Aventis, and Bayer. Dr. Muder does research for Aventis, and Pharmacia. Dr. Tice is a consultant for Roche, Merck, and ZLB and is on the speaker's bureau of Roche, Ortho, GlaxoSmithKline, and Pharmacia, and does research for Elan, Roche, Merck, Pharmacia, and Becton-Dickinson. Dr. Jenson is on the speaker's bureau of Merck. Dr. Donnelly is a consultant for OrthBioTech, and does research for Janssen, Merck, Novartis, Numico, Pharmacia, and Pfizer. Dr. Smilack reports no speaker's bureau, research, stockholder, or consulting relationships having ties to this field of study.

Society for Healthcare Epidemiology of America Meeting Coverage

The following is an overview of some presentations at the 2003 annual meeting of the Society for Healthcare Epidemiology of America. — Robert Muder, MD

Clostridium difficile Diarrhea (CDD)

In January 2002, a major university hospital experienced a significant 2-fold increase in the incidence of CDD to 1.4 cases/1000 patient-days, from a relatively stable 3-year baseline of 0.7 cases/1000 patient-days. The outbreak persisted for 6 months and involved multiple patient wards. In July 2002 infection control instituted 2 new policies: placement of all patients with new diarrhea in contact isolated until tested for *C difficile* and use of hand washing rather than alcohol hand sanitizer on wards experiencing a CDD outbreak. There was an immediate two-thirds reduction in the incidence of CDD that was sustained for 4 months, the duration of reported follow-up (Hall KK, et al. Outbreak of *Clostridium difficile* diarrhea (CDD) controlled with infection control measures. [*Abstract 5*]).

Comment

This study demonstrates the efficacy of relatively simple infection control measures to reduce the rate of CDD. Isolation of diarrhea patients pending laboratory confirmation was 1 key aspect. The other was the return to soap and water. *C difficile* spores are not killed by 60% ethanol, the active ingredient in most hand sanitizers. Vigorous washing with soap and water physically removes spores and prevents transmission.

Legionnaires' Disease in Long-Term Care

In a long-term VA hospital, the investigators conducted prospective microbiologic surveillance of the facility's potable water system and screened cases of pneumonia acquired within the facility using *Legionella* urinary antigen testing and *Legionella* sputum culture. More than 50% of the facility's water system yielded *Legionella*; 3 serogroups were isolated, including serogroup 1. Of 14 cases of nosocomial pneumonia, 3 (21%) were due to *L pneumophila* serogroup 1. Clinical and environmental isolates were identical by PFGE testing. Following installation of a copper-silver ionization system, culture positivity of the water system was reduced to 4%; no additional cases occurred (Sarro KE, et al. Unsuspected endemic Legionnaires' in a long-term care facility. [*Abstract 9*]).

Comment

Most pneumonias in the long-term care setting are treated empirically, without benefit of etiologic diagnosis. Although there is good evidence that *Legionella* colonization of the water system of an acute care hospital is associated with the occurrence of nosocomial Legionnaires' disease, there are few data to support such an association in long-term care facilities. There are a handful of studies documenting the occurrence of Legionnaires' disease in long-term care. This study raises the possibility that it may occur much more frequently than is currently recognized.

Surgical Site Infection (SSI)

Richards and colleagues at the CDC analyzed data from the NNIS system from 1999-2001 to determine the effect of SSIs on outcomes for selected high-volume surgical procedures. These included cardiac surgery, coronary artery bypass, cholecystectomy, colon surgery, hip replacement, and knee replacement. The rate of SSI varied from 0.8% to 5.2% for the various procedures, with the highest rate occurring, not unexpectedly, in colon surgery. Mortality rates ranged from 0.4% to 10.3%. For each type of procedure, SSI was the most frequent cause or contributor to mortality, ranging from 44% to 79% of deaths. The effect of infection on mortality was most dramatically demonstrated by the findings for cardiac surgery, in which overall mortality was 10.3%, with 61.5% of those deaths associated with infection. Infected patients had a length of stay of 18.5 days, compared with 10.1 days for those without SSI. In the case of hip replacement, the overall mortality was low (2.2%), but 79% of deaths were due to infection (Richards CL, et al. Outcomes in patients with surgical site infections (SSIs) in the United States—Results of the National Nosocomial Infections Surveillance System. [*Abstract 113*]).

Comment

This study documents that SSI is the single largest contributor to mortality in surgical patients. Although both infection and mortality rates were low for the majority of procedures, tens of thousands of these procedures are performed annually. According to Medicare claims data, about 85,000 hip replacement procedures are performed in the United States annually. Based on the CDC data, this would translate into nearly 1500 infection-related deaths for a single procedure. Clearly, many of these infections are preventable. Measures that have documented efficacy in preventing SSIs need to be universally adopted. These include appropriate timing of peri-operative antibiotic prophylaxis and tight control of peri-operative blood glucose levels, to name but 2. In addition, the health care industry needs to identify new technology and innovative management techniques that will further reduce the burden of SSIs. ■

How HCV Manages to Stick Around

ABSTRACT & COMMENTARY

Synopsis: Persistence of hepatitis C virus after acute infection is the result of the ability of the viral serine protease to interfere with the production of antiviral proteins, including type 1 interferons.

Source: Foy E, et al. Regulation of interferon regulatory factor-3 by the hepatitis C virus serine protease. *Science.* 2003. In press.

Foy and colleagues investigated the molecular basis for the ability of hepatitis C virus (HCV) infection to escape the immune response and persist. Specifically, they examined the role of the HCV NS3/4A serine protease in interfering with host defenses.

Through a series of experiments, they demonstrated that HCV NS3/4A serine protease blocked the phosphorylation of latent interferon regulatory factor-3 (IRF-3) to its active form by virus-activated kinase. This resulted in blockade of transcription of type 1

interferons (IFN) and other antiviral genes important in the control of HCV replication. Finally, this blockade was reversed by inhibition of NS3/4A serine protease activity by SCH6, a specific inhibitor of this enzyme.

■ COMMENT BY STAN DERESINSKI, MD, FACP

Hepatitis C evolves into a chronic infection in approximately 85% of those infected, with progression to cirrhosis in 20-30%. The high rate of mutation of this RNA virus and its evolution of innumerable quasispecies capable of escape from the adaptive immune response appear to account for its ability to persist once a state of chronic infection has been achieved. An important question that lacked an answer, however, was how the virus escaped the immune system in the time immediately after acute infection when large numbers of quasispecies were not yet present. The data of Foy et al provide evidence of a potential mechanism for this early escape.

Phosphorylation of IRF-3 by viral directed kinase leads to its translocation from cytoplasm to nucleus, where it induces the transcription of a series of antiviral genes, among them being type 1 IFNs. The HCV product, NS3/4A, disrupts this process by blocking the accumulation of phosphorylated IRF-3, as well as its translocation to the nucleus. The consequence is severe impairment of the antiviral response and the ability of HCV, having subverted this response, to persist in the cell, replicate and, thus, mutate.

The HCV NS3/4A enzyme complex contains a variety of catalytic properties, including acting as a serine protease necessary for post-translational processing the viral polyprotein, making it critical for viral replication. This criticality has made NS3/4A a target for new drug development. SCH6, one of a class of novel inhibitors of the protease, is one of these drugs. This study demonstrates that inhibition of the viral serine protease by SCH6 not only interferes with viral replication, but it also interferes with the ability of this enzyme to trigger the production of antiviral proteins, including type 1 interferons.

In summary, HCV has evolved a specific "workaround," allowing it to replicate without stimulating the production of interferons and other antiviral proteins and, thus, allowing it to persist in the infected host. The efficacy of newly developed inhibitors of HCV protease appear to have the ability to not only block viral replication, but also to prevent this method of circumvention of the innate immune response. ■

Continuous Amphotericin Infusion

ABSTRACT & COMMENTARY

Synopsis: Amphotericin B deoxycholate was administered by continuous infusion in doses as high as 2 mg/kg/d with acceptable toxicity. But is this the right approach?

Source: Imhof A, et al. Continuous infusion of escalated doses of amphotericin B deoxycholate: An open-label observational study. *Clin Infect Dis*. 2003;36:943-951.

Imhof and colleagues evaluated the possibility that continuous infusion of amphotericin B deoxycholate might allow administration of higher doses without a parallel increase in toxicity. After an initial dose of 1 mg/kg administered over 24 hours, the daily dose was gradually escalated to 1.5 mg/kg/d, 1.75 mg/kg/d, or 2 mg/kg/d. Dose escalation proved possible in 28 of 33 patients. The median duration of amphotericin therapy was 16 days (range, 7-72 days).

Eighteen percent of 727 administrations involving 17 patients (52%) were associated with infusion-related toxicity. A decrease in creatinine clearance was observed in 27 (82%) patients, and a greater than 50% decrease was seen in 5 of these patients. Nonetheless, this adverse effect was dose limiting in only 1 patient, and none required dialysis. One patient developed respiratory decompensation thought to be related to volume overload, and 1 patient had grade 3 hepatotoxicity.

Twenty-four patients were alive at the end of treatment. While death had been deemed unrelated to fungal infection in the other 9, evidence of invasive fungal infection was found at postmortem examination in 3 of these patients.

■ COMMENT BY STAN DERESINSKI, MD, FACP

This group of investigators previously compared the continuous infusion of amphotericin B deoxycholate to its administration over 4 hours each day in a randomized trial.[1] They concluded that the former mode of delivery was associated with a reduced risk of both infusion-related adverse events and of nephrotoxicity. In the current study, they concluded that "continuous infusion of amphotericin B deoxycholate escalated to 2.0 mg/kg/d seems not to cause additional impairment of vital organ functions and to be well tolerated by most patients." This investigation was, however, not randomized, making it difficult to know what the relative toxicity of

amphotericin B at these dose levels would be relative to a shorter infusion.

The goal of antimicrobial therapy is, however, not to administer the maximally tolerated dose of drug but to control or eradicate infection. One cannot discern from this study whether the approach taken by Imhof et al is associated with improved outcomes, since this was not studied and since the study design did not include randomization to a standard approach to amphotericin administration. Since current evidence favors the notion that the antifungal effect of amphotericin is concentration-dependent, rather than time-dependent, and that amphotericin has a prolonged post-antifungal effect, there is reason to suspect that better outcomes might not result from this strategy.[2, 3]

With drugs that have concentration-dependent antimicrobial effects, the accepted strategy is to maximize peak serum concentrations. The switch to once-daily administration of aminoglycosides from the past practice of repeated intermittent administrations is an example of exploitation of concentration-dependent killing. Thus, even if continuous infusion does allow administration of higher doses of amphotericin B, it is not clear to me what the point of this approach is. ■

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Fire and Alcohol: Hand-Hygiene Plans Getting Hosed Down by Safety Officials

By Gary Evans, Hospital Infection Control editor

The nationwide switch to alcohol hand rubs is running afoul of fire marshals who fear the flammable products might accelerate a hospital blaze.

Loretta Fauerbach, MS, CIC, director of infection control at Shands Hospital at the University of Florida in Gainesville, recently described the problem to infection control advisors at the Centers for Disease Control and Prevention (CDC).

The Joint Commission for Accreditation of Healthcare Organizations also has weighed in on the issue (see page 134).

"Fire marshals are reacting to the presence of alcohol-based hand-hygiene agents," Fauerbach told the CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC). "In fact, if [ICPs] are posting dispensers in the hallway, they are getting cited." A liaison member of HICPAC representing the Association for Professionals in Infection Control and Epidemiology (APIC), Fauerbach said APIC is working with hospital safety and engineering groups to resolve the situation.

"It was sort of one of these things that nobody in infection control or HICPAC thought of, and many institutions [in] several states are being bombarded by their fire marshals," she told the committee. "We hoped it would go away, but it has reached a crescendo."

While the issue may prove to be only a short-term setback, it certainly undermines the momentum of the CDC's highly touted answer to the longstanding problem of poor hand-washing compliance. The alcohol-based rubs are quick, effective, don't require a sink, and unfortunately, are flammable.

"[The CDC] basically came from the standpoint of this is what is good for cleaning your hands," said William M. Wagner, ScD, director of Southeast Region Safety Management Services Inc., a medical consulting firm in Atlanta.

"You have to have a certain amount of active ingredients—in this case, ethanol and isopropyl—as the agent to do the killing," he said. "It does work, but they never thought about where people were going to put these things. And that raised the flammability issue. And [alcohol] foams are a flammable liquid under pressure, so you now have a Roman candle if it gets hot."

Rules are Rules

The National Fire Protection Association (NFPA) standards for fire safety codes for hospitals prohibit anything that limits the egress of patients out of their rooms, he added. "The alcohol in the hallway can do that," Wagner said. "If there is a fire, you have a flammable liquid that can enhance the fire. The question that comes up is how the [local] jurisdiction is going to interpret that. The 'authority having jurisdiction' can be the local fire marshal, county fire marshal, or whoever has been given the responsibility for fire in that location. They are the ones who started saying, 'No, you can't do this,' after some hospitals put up 500 bottles outside of every

room in the hospital."

There is a growing general perception that fire marshals have less problem with the alcohol rubs if they are in the patient room as opposed to mounted in the hallway.

"We are going to be putting them in our rooms," said Jo Middlebrooks, RN, CIC, infection control coordinator at Henry Medical Center in Stockbridge, Ga.

"But you know we use alcohol every day all over the hospital. We use alcohol wipes to prep before we administer something into an IV line. We use tons of alcohol a day. So what is the difference?" she asked.

In any case, ICPs should contact their local fire officials regarding placement and storage of the items. "People should make an assessment before they start to put them up," Wagner said. "That should have been part of their actual ordering process. When you read the [ordering] sheet and it says flammable liquids, that raises [issues about] the storage of it and where you are going to put it in the [patient care area]."

Addressing the issue in the guidelines, HICPAC reminded that: "Alcohols are flammable. Flash-points of alcohol-based hand rubs range from 21ºC to 24ºC, depending on the type and concentration of alcohol present. As a result, alcohol-based hand rubs should be stored away from high temperatures or flames in accordance with National Fire Protection Agency recommendations. In Europe, where alcohol-based hand rubs have been used extensively for years, the incidence of fires associated with such products has been low.[1]

"One recent US report described a flash fire that occurred as a result of an unusual series of events, which included a health care worker applying an alcohol gel to her hands, immediately removing a polyester isolation gown, and then touching a metal door before the alcohol had evaporated.[2] Removing the polyester gown created a substantial amount of static electricity that generated an audible static spark when the worker touched the metal door, igniting the unevaporated alcohol on her hands,"[3] HICPAC said.

"This incident emphasizes the need to rub hands together after application of alcohol-based products until all the alcohol has evaporated."[3]

Another concern is that the problem will open up the market to low-alcohol, nonflammable products, which are not strong enough to decontaminate the hands. The CDC recommends an alcohol content of least 60% for effective hand hygiene, but some of the nonflammable products have only 10% alcohol.

"I have been talking to some of my old colleagues at CDC, and they are worried that people are going to start buying these gels that say nonflammable," Wagner said. "If they are nonflammable, they don't have enough alcohol in them to deactivate the organisms." ■

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This article was published in the April 2003 issue of Hospital Infection Control.

JCAHO Addresses Issue of Fire, Alcohol Rubs

Dear Editor: There has been a lot of discussion going on in recent weeks in regards to the use of alcohol-based hand-hygiene products in health care settings. We feel that the spotlight has now been shined upon the judicious use of these products since the Joint Commission for Accreditation of Healthcare Organizations (JCAHO) released its Sentinel Event Alert pertaining to infection control practices.

JCAHO has officially come out on allowing and encouraging the use of these products to assist in reducing the spread of nosocomial infections.

The debate is now centering on where to place and mount these dispensers. Many infection control practitioners and infectious disease specialists recommend mounting the dispensers just outside the patient room doorway in the egress corridor to achieve the best results in getting staff to use the dispensers. The following is our position at the moment regarding the location and installation of alcohol-based hand-sanitizing gel dispensers in health care facilities.

The 2000 edition of National Fire Protection Association (NFPA) 101 (Life Safety Code) prohibits the

installation of these types of items in egress corridors. Per section 7.3.2, (Means of Egress) these devices are prohibited unless the dispensers protrude no more than 3.5 inches into the egress corridor and are mounted at or below a height of 38 inches. Next, NFPA 101 Sec. 4.3.2 states: "No storage or handling of flammable liquids or gases shall be permitted in any location where such storage [or use of product] would jeopardize egress from the structure, unless otherwise permitted by 8.4.3.1."

Additionally, 101-19.7.5.4 prohibits placing combustible decorations in any health care occupancy unless they are flame retardant. While we realize that 101-19.7.5.4 does not precisely address alcohol gel dispensers, it is, however, a code citation that we believe comes close to addressing this issue in health care facilities.

Finally, 1999 NFPA 30, Flammable and Combustible Liquids Code, Chapter 4, would probably be another code/chapter to review for this matter. All this being said, none of these codes explicitly cite any chapter and verse specifically addressing wall-mounted alcohol-based hand-wash gel dispensers.

JCAHO recommends organizations install these dispensers not in the egress corridors, but just inside the patient's room or whichever rooms the organization deems necessary. Do not install them above a heat/ignition source or electrical outlet. Our contention is that the typical alcohol gel dispenser used in the health care setting is of such a limited size and volume that the alcohol gels' contribution to the hazard of acceleration of fire development or fire spread is "negligible."

This matter was discussed at the 2002 NFPA fall meeting with various authorities having jurisdiction (AHJs) including fire marshals, JCAHO, IFMA, ASHE, the NFPA Health Care Section executive board, and a host of others. Some fire marshals are concerned about the use of these alcohol gel sanitizers, and the matter is being reviewed. There will be tests performed sometime in the near future by independent agencies to determine the level of risk involved with these alcohol gel dispensers.

Again, we intend to publish any significant findings or test results in Environment of Care News as they are received.

— Submitted by: Thomas Scott Vanderhoof, Captain, US Air Force, MSC, CAAMA, AFIT, EWI, Environment of Care Fellow, Joint Commission for Accreditation of Healthcare Organizations Standards Interpretation Group, Oakbrook Terrace, Ill. ■

CME Questions

Effective with this testing period, Infectious Disease Alert *is changing its testing procedure. You will no longer need to return a Scantron answer sheet to earn credit for the activity. Please review the text, answer the following questions, check your answers against the key on the following page, and then review the materials again regarding any questions answered incorrectly.* ***To receive credit for this activity, you must return a CE/CME evaluation at the end of the testing term.***

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23. Which of the following is correct?

a. West Nile virus was first detected in North America in 1999.
b. The most common means of confirmation of WNV infection is cell culture.
c. Spinal anterior horn cells are not involved in patients with profound muscular weakness caused by WNV infection.
d. Myoclonic movements are never observed in WNV encephalitis.

24. Which of the following is correct?

a. Amphotericin B exhibits time-dependent antifungal activity.
b. *Clostridium difficile* spores are not killed by 60% ethanol.
c. Surgical site infections are very infrequent contributors to post-surgical mortality.
d. The flash point for all available alcohol-based hand rubs exceeds 30°C.

Answers: 23(a); 24(b)

Readers are Invited

Readers are invited to submit questions or comments on material seen in or relevant to *Infectious Disease Alert*. Send your questions to: Christie Messina—Reader Questions, *Infectious Disease Alert*, c/o American Health Consultants, P.O. Box 740059, Atlanta, GA 30374. ■

In Future Issues:

SARS

UPDATES

By Carol A. Kemper, MD, FACP

Osteopenia in HIV

Sources: Mondy K, Tehas P. *Clin Infect Dis*. 2003;36(S2):S101-105; Mondy K, et al. *Clin Infect Dis*. 2003;36(4):482-490.

Hiv-infected individuals may be at significantly increased risk for osteopenia and osteoporosis. Problems such as avascular necrosis of the hips, spontaneous hip fractures, and vertebral compression fractures are being seen with increased frequency. While the pathogenetic mechanisms for this have not been determined, an association with antiretroviral therapy has been suspected. As part of their ongoing studies of metabolic complications of HIV, Mondy and Tehas examined the incidence of bone demineralization, bone metabolism, and histomorphometric studies in 128 patients, 93 of which were followed for up to 72 weeks. Low body weight, a history of weight loss, steroid use, and smoking were strongly associated with the development of osteopenia. There was no clear-cut effect of antiretroviral therapy on bone mineral density (BMD), after controlling for other risk factors.

In a subset of 73 patients who were receiving 2 nucleosides and a PI, 95% of whom had undetectable viral loads, 43% were defined as osteopenic/osteoporotic. However, there was no association between bone mineral loss and specific PIs. Interestingly, markers for bone resorption and formation, including elevated alkaline phosphatase, osteocalcin, and urine pyridinoline, were generally increased for the whole cohort, but were not associated with the development of low BMD. HIV clinicians should consider this potential problem in their HIV-infected patients, especially those who are thin and smoke. Exercise, smoking cessation, and nutritional supplements (eg, calcium) may reverse the process in some, although hormonal therapy, bisphosphonates, and raloxifene may be necessary. ■

SARS Creates a Marketing Dream

Sources: *New York Times*. Section A, Page 1, May 10, 2003; www.hwdistllc.com/mwsubscribe.

The sars outbreak is creating a frenzy for homeopathic remedies and disinfectants, especially in China, where a growing middle class with cash to spend has cleaned out store shelves of disinfectants, masks, and gloves. Following an article in a Chinese youth daily, which wrote that a specific bleach solution, called Long An 84, would kill the SARS virus, there was a run on the product, and customers are now being limited to 1 bottle. Coupled with the Chinese's long-held belief in herbal remedies and health tonics, any variety of herbs, potions, lotions, and creams that purport to do anything from stimulate the immune system to kill the SARS virus are selling like hotcakes. The cost of ordinary products, like honeysuckle, have increased 10 times in the past few weeks, as demand has forced prices higher.

Web sites for natural remedies against SARS are also popping up. An interesting one is touting the "Urbani SARS formula," named for Dr. Carlo Urbani who sadly died from SARS in March while administering to the sick in Thailand. The Urbani SARS formula combines methanolic extracts of 2 berry bushes—*Amlanchier alnifolia* and *Rosa nutkana*—both types of *Rosacea*. Various researchers have explored the potential antiviral properties of the *Rosacea* family, which reportedly have activity against coronavirus. Extracts of these plants were used by Native Americans for stomach ailments and parturient women. The mixture has been combined with other root and plant extracts to boost natural immunity. Meanwhile, 2 hours south of Beijing, visitors to China's largest wholesale herbal market have reportedly jumped from 20,000 to 460,000 per day. Can you imagine a half a million people thronging into one market place every day? What a perfect opportunity for spread of a respiratory pathogen. ■

Baboons & STDs

Source: ProMED-mail post. May 1, 2003; www.promedmail.org.

Preliminary reports from this and another web site describe an outbreak of a possible new strain of venereal disease affecting baboons in the Manyara National Park in Tanzania. Tanzanian authorities have reported that at least 200 male baboons have contracted a mystery ailment that results in excruciatingly painful genital ulcers. Some of the baboons have apparently died because the pain has been so intense. The park officials have been referring to the ailment as "syphilis," although this has not been substantiated, and no mention was made of whether female baboons were being affected. A number of different researchers and laboratories are trying to identify the problem— and more information is anticipated. ■