Global Survey: Age Is Big Factor In Antibiotic Noncompliance

BY PATRICE WENDLING
Chicago Bureau

NICE, FRANCE — Although many people are concerned about antibiotic resistance, far fewer understand how their actions contribute to the problem, according to a global patient survey.

Results from the COMPLy (Compliance, Modalities by Population, Lifestyle and Geography) survey show that noncompliance is a global phenomenon that varies widely among countries, and is associated with patient age, dosage regimen, and patient attitudes toward their physicians.

A combination of telephone and in-person interviews were conducted in the fall of 2005 with 4,514 participants from 11 countries who were 18 years or older and had taken a self-administered antibiotic within the past 12 months. Noncompliance was defined as missing a dose or day, or having any medication left over.

A total of 4,088 patients were included in the study, which was sponsored by Pfizer Inc.

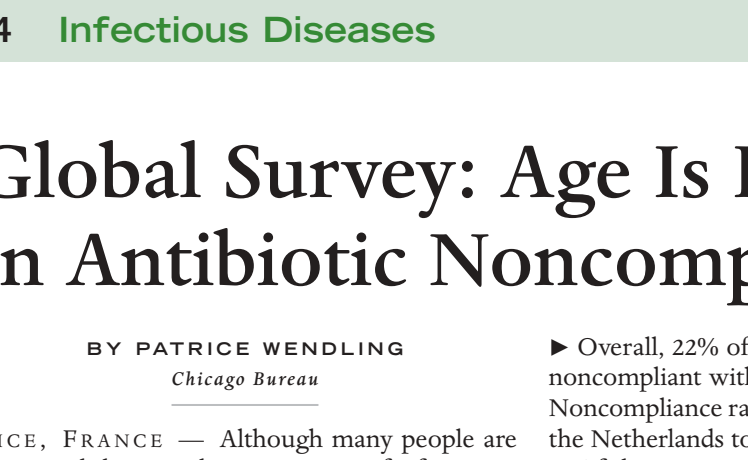
These were among the preliminary results presented at the 16th European Congress of Clinical Microbiology and Infectious Diseases:

- Overall, 22% of respondents admitted to being noncompliant with their last antibiotic treatment. Noncompliance rates ranged from a low of 10% in the Netherlands to a high of 44% in China.
- Of those surveyed, 8 out of 10 reported that antibiotic-resistant germs are a very serious problem, but only 6 in 10 believed that taking an antibiotic improperly might reduce its effectiveness the next time it is used.
- Half of respondents believed leftover antibiotics could be saved and used again.
- Among those with leftover antibiotics, 74% said they saved them, 18% threw them away, 5% gave them to someone else, and 3% dealt with them by other means.
- Noncompliance among patients aged 18-29 years was twice as high (30%), compared with those 60 years and older (14%).
- Noncompliance was lower among patients taking one dose per day (15%), compared with those taking two doses per day (21%) or three or more doses daily (27%).

A patient's attitude toward his or her physician is another factor driving noncompliance, said Dr. Jean-Claude Pechère, who presented the results at the meeting. Patients who feel actively involved in decisions about the management of their condition are more likely to comply with an antibiotic regimen, compared with those who are critical of their physician's abilities or feel ignored.

Attitudes differ by country. For example, Americans tend to be more involved patients, whereas many Japanese patients feel ignored, said Dr. Pechère, COMPLy steering committee chair and professor emeritus, University of Geneva. Noncompliance was 19% in the United States, compared with 34% in Japan, the study said. ■

Antibiotic Noncompliance: Percentage of Patients Who Missed a Dose or a Day or Who Didn't Complete Course



Note: Based on a study of 4,088 patients.
Source: Study sponsored by Pfizer Inc.

ELSEVIER GLOBAL MEDICAL NEWS

Clindamycin 'D Test' Called Vital in MRSA

BY KATE JOHNSON
Montreal Bureau

CHICAGO — The "D test" is a critical second-step test when methicillin-resistant *Staphylococcus aureus* cultures come back showing erythromycin resistance and clindamycin susceptibility, according to Dr. Jeffrey Starke.

"It should be automatic—every hospital in the country should know about this test. If you are not running it, you have to start," cautioned Dr. Starke, professor and vice chairman of pediatrics at Baylor College of Medicine, and infection control officer at Texas Children's Hospital, in Houston.

As the number of methicillin-resistant *Staphylococcus aureus* (MRSA) infections has escalated to epidemic proportions at Texas Children's Hospital, discordance in the bacteria's response to erythromycin and clindamycin has become a red flag for the organism's potential to develop "inducible resistance" to clindamycin, Dr. Starke said at a meeting sponsored by the American College of Emergency Physicians.

"If it's erythromycin and clindamycin susceptible initially, or resistant to both initially, there is no issue," he explained. "But it's when there is discordance—when it shows erythromycin resistance but clindamycin susceptibility—that this test needs to be done."

The clindamycin disk induction test, or D test, will determine if the organism is truly susceptible to clindamycin, or whether there is a risk of inducible clindamycin resistance, he said. "When an isolate has inducible clindamycin resistance, treatment failures often occur when clindamycin is used—especially if the infection is serious or deep-seated," Dr. Starke said.

The current epidemic of community-acquired MRSA infection differs from the traditional disease in terms of both the risk factors and the aggressiveness of the infection, he said.

"Patients are almost exclusively normal hosts," he said, listing current risk factors as race (African Americans have significantly increased risk, compared with whites), prior infections, infected household contacts, day care, and competitive athletics.

Unlike the traditional MRSA involvement of skin and soft tissue (and sometimes muscle, bone, or joints), current infections can involve all these areas simultaneously and continue to progress. "We are seeing a large number of complicated necrotizing pneumonias and empyemas, we are seeing *S. aureus* meningitis, sepsis, and septic venous thrombosis," he said. "If you are not seeing this yet, it is coming," he warned.

In the case of such deep, acute involvement, the role of surgical intervention is equal to, if not more important than, that of antibiotics, Dr. Starke emphasized.

"My overall message is to be surgically aggressive—you need to drain the pus," he said. ■

Hospital's Infection Rate Defies Clean-Hands Effort

NICE, FRANCE — A campaign to improve hand hygiene at a Danish hospital failed to decrease hospital-acquired infections, Dr. Sussie Laustsen and colleagues reported in a poster at the 16th European Congress of Clinical Microbiology and Infectious Diseases.

The finding comes at a time when hand hygiene is being promoted as key to the World Health Organization's Global Patient Safety Challenge, which was launched in October 2005 to reduce health care–acquired infections worldwide.

In April 2004, a campaign began in all clinical departments at Aarhus (Denmark) University Hospital with instructions on performing alcohol-based hand disinfection.

Compliance with hand disinfection increased from 53% in the first quarter of 2004 to 71% in the first quarter of 2005, and consumption of hand alcohol doubled from about 1,250 L at baseline to 2,500 L in 2005.

However, the incidence of hospital-acquired infections did not decrease from baseline (1.77 per 1,000 bed-days) to the first quarter of 2005 (1.80 per 1,000 bed-days). The reason for this finding is unknown, but the hospital plans to increase surveillance, particularly among physicians, Dr. Laustsen said.

—Patrice Wendling

Acyclovir May Cut Postherpetic Neuralgia

BY MARY ANN MOON
Contributing Writer

Intravenous acyclovir significantly reduced postherpetic neuralgia in half of the older patients who received it in an open-label pilot study, reported Dr. Dianna Quan and her associates at the University of Colorado Health Sciences Center, Denver.

These "promising" results will pave the way for a large clinical trial of the drug, the researchers said.

For most patients who develop herpes zoster (shingles) decades after childhood varicella infection, pain resolves within 4-6 weeks. But among patients over age 70, 40% have postherpetic neuralgia that persists for months or years. The exact cause is unknown, but there is evidence that low-grade varicella infection within the ganglia is a contributing factor. Noting that postherpetic neuralgia may reflect such chronic infection, Dr. Quan and her associates assessed whether antiviral therapy would help to quiet any low-grade infection and diminish pain.

They treated 12 men and 3 women aged 53-82 years whose postherpetic neuralgia had persisted for a median of 1 year and had not responded to numerous treatments including opioids, tricyclic antidepressants, and gabapentin. The subjects received 10 mg/kg IV acyclovir every 8 hours for 14 days. Three subjects withdrew from the study: one who had mild, reversible creatinine elevation likely caused by the drug, one who became ill from unrelated causes, and one who could not tolerate the IV.

The remaining 12 subjects completed the intravenous therapy and then received a 1-month course of oral valacyclovir. It was hoped that the oral antiviral would provide continued viral suppression and prolong the period of pain relief (Arch. Neurol. 2006;63:[doi:10.1001/archneur.63.7.noc60049]).

In the intention-to-treat analysis, 7 of the 15 subjects (47%) reported clinically significant pain relief after the intravenous therapy. At the conclusion of the study after the course of valacyclovir, 8 of 15 (53%) reported clinically significant pain relief.

"Based on our findings, we now believe that a large, randomized, double-blind, placebo-controlled trial is warranted," the authors said. ■