Think ‘Bronchiectasis’ in Frequent Antibiotic Users

BY BRUCE JANCIN
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KEystone, Colo. — Anybody who needs two or more courses of antibiotics within a year for respiratory tract infec-
tions deserves to be evaluated for bronchiectasis, Dr. Gwen A. Huitt assert-
ted at a meeting sponsored by the Nation-
al Jewish Medical and Research Center.

‘It’s not normal for anyone to need any antibiotics for, say, a bronchitis or si-
nusitis—and remember, it’s called the respiratory tree—we need to think about underlying predisposing conditions,’” according to Dr. Huitt, director of the adult infectious dis-
ase care unit at the Denver center.

She believes that bronchiectasis is far more common in primary care settings than most physicians realize. This convic-
tion is based in part on the large number of telephone and e-mail consults she han-
dles through National Jewish’s “iLung Line” (800-222-5864 or lungline@njh.org) that turn out to involve patients with previously undiagnosed bronchiectasis.

High-resolution chest CT is the diag-

ostic cornerstone. It will readily show the permanently dilated, grossly distorted bronchi and bronchioles that define bronchiectasis anatomically. The patho-
genesis involves some sort of initial in-
flammatory process leading to a cytokine cascade, including tumor necrosis factor, interleukins, and elastases, along with ac-
cumulation of white blood cells. This in-
flammatory gunk predisposes to bacterial infection, which in turn damages mu-
cociliary function. This process leads to a

vicious cycle in which stagnant mucus at-
tions—for example, pertussis or measles infec-
tions—to precede diagnosis of the autoim-
une disease. Indeed, it’s for this reason Dr. Huitt advocates screening all bronchiectatic patients with an antinu-
merly, at baseline and every 6 months.

Knowledge of the predominant chronic lung pathogen guides maintenance antimicrobial therapy aimed at preventing acute exacerbations of bronchiectasis that will require hospital-
ization and several weeks of intravenous antibiotics.

In the event sputum microbiology shows P. aeruginosa, it’s essential that the labora-
tory describe whether the strain is mucoid or nonmucoid—something many large na-
tional laboratories are reluctant to do. “As soon as a patient acquires a mucoid strain as the predominant organism, the time to mortality definitely quickens,” she said.

Periodic sputum analyses are also done to survey for the presence of a chronic nonnontuberous mycobacterial infection. Antimicrobial susceptibility testing has been a controversial issue. New American Thoracic Society guidelines to come out later this year will for the first time call for routine susceptibility testing in individuals with nontuberculous mycobacterial lung infection, said Dr. Huitt.

Ralstonia

Found in More Vapotherm Devices, Recall Launched

BY MARY ANN MOON
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Vapotherm respiratory gas ad-
dministration devices are be-
ing voluntarily recalled, following federal government reports that twenty-nine hospitals in 16 states found Ralstonia organisms colon-
izing the devices, and cultures from approximately 40 pediatric patients also yielded the bacteria.

The Centers for Disease Control and Prevention and the Food and Drug Administration late last year had advised clinicians to use alter-
native devices to provide humidified oxygen therapy until the source of contamination has been identified and removed. They also recommended that any patients who have been exposed to the Vapotherm system be monitored for signs and symp-
toms suggesting infection, in-
cluding fever, poor feeding, irrit-
tability, and changes in hematologic indices.

In addition, clinicians may want to consider Ralstonia species infection in the differen-
tial diagnosis of symptomatic pa-
tients even if the organism has not been isolated,” the FDA said in a public health notification (www.fda.gov/cdrh/safe-
ty/122005-vapotherm.html).

In response, the device manu-
facturer, Vapotherm Inc., announced last month that it would recall and disinfert Vapotherm 2000 and 2000h devices. Units will

then be returned to the owners with updated disinfection and us-
age recommendations.

Contamination of the Vapo-

the device that were list-
ed in its original instructions were found to be inadequate, the manufacturer issued new in-
structions for chloride dioxide disinfection. However this method also “may not achieve sustained bacterial control,” ac-
cording to the FDA.

Infections caused by Ralte-

sia should be treated on the ba-
sis of results of susceptibility test-

ing of the patient’s isolate,” ac-
cording to the CDC (MMWR 2005;54:1-2).

“Clinicians who elect to use Vapotherm are encouraged to weigh the risk of potential bac-
terial contamination of the de-
vice against the benefits Vapotherm might provide pa-
tients who require humidified oxygen therapy,” the CDC said.

For more information, visit www.vtherm.com/recall. Cases of colonization or infection with Ralstonia or related bacteria (gram-negative rods) in patients exposed to Vapotherm should be reported to the manufacturer, to local or state health departments, and to the FDA at 800-893-0485.

Adverse events associated with medical devices should be re-
ported to the FDA’s MedWatch program at www.fda.gov/Med-
watch or by calling 800-332-1088 or faxing 800-332-0178.