

CLINICAL CAPSULES

Bottled Water Not So Safe

Bacteria or fungi were found in 40% of bottled water samples in a recent study.

A total of 70 samples from 16 different countries were tested; 68 were commercial bottled mineral water, 1 was tap water, and 1 was water from a natural well, Rocus R. Klont, M.D., reported in a poster at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy in Washington.

"We found high levels of bacterial contamination in commercially bottled mineral water," said Dr. Klont of University Med-

ical Center, Nijmegen, the Netherlands.

The findings debunk the common belief that bottled water is purer than tap water—an important finding, because hospitals are increasingly providing bottled water to immunocompromised patients, he said.

Bacteria, including coagulase-negative staphylococci, nonfermenters, or gram-positive rods, grew from 21 samples. *Legionella pneumophila* DNA was detected in six samples, and *Legionella* antigen was detected in six samples, but only two of these were antigen- and polymerase chain reaction-positive. Fungi, including peni-

cillium or nonspecified fungi, grew from three samples, Dr. Klont said.

Endometritis and BV Linked

Bacterial vaginosis-associated organisms found frequently in women with pelvic inflammatory disease also were strongly associated with endometritis, Catherine L. Haggerty, Ph.D., of the University of Pittsburgh and her colleagues reported.

The investigators looked at associations between endometritis and *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, anaerobic bacteria, facultative bacteria, lactobacilli, and bacterial vaginosis (BV) in 278 women from the PID Evaluation and Clinical

Health Study. Those with acute endometritis were more likely to be infected with *C. trachomatis* (odds ratio [OR] 16.2), *N. gonorrhoeae* (OR 11.6), diphtheroids (OR 5.0), black-pigmented gram-negative rods (OR 3.1), and anaerobic gram-positive cocci (OR 2.1) (Clin. Infect. Dis. 2004;39:990-5).

The associations between acute endometritis and black-pigmented gram-negative rods, anaerobic gram-positive cocci, and BV remained significant after excluding the 41% of women infected with *N. gonorrhoeae* and/or *C. trachomatis*. Treatment in most PID patients is directed at *N. gonorrhoeae* and *C. trachomatis*, but these account for fewer than half of all cases. The frequency of BV-associated organisms in PID patients suggests that treatment with a regimen containing metronidazole to improve anaerobic coverage is warranted, the investigators said.

GBS Risk After Flu Vaccine

Guillain-Barré syndrome remains the neurologic condition most frequently reported following influenza vaccination in the United States, but the number of reported cases has declined significantly since 1990, Penina Haber, Ph.D., of the Centers for Disease Control and Prevention and colleagues reported.

The annual reporting rate for Guillain-Barré syndrome (GBS) decreased significantly from 0.17/100,000 at its high in 1993-1994 to 0.04/100,000 in 2002-2003. The onset interval (median 13 days) and the low prevalence of preexisting illnesses (seen in 24% of cases) suggest a possible causal relationship between flu vaccine and GBS, they said (JAMA 2004;292:2478-81).

They noted that the flu vaccine is typically made from chicken eggs, and campylobacter—known to cause GBS—is endemic among chickens. The decline in GBS cases coincided with stepped-up food safety interventions that led to a 28% decrease in campylobacter infections. During about the same time frame, there was a decline in GBS hospital discharges in the U.S. from 3.1 to 2.5 per 100,000 population.

Additional research is needed to explore the relationship between GBS and influenza vaccine, the investigators said.

Pertussis Vaccine Urged

Adolescents and certain adults should be vaccinated against *Bordetella pertussis* to better protect infants from this deadly organism, the Global Pertussis Initiative has said.

A vaccine suitable for booster vaccination in these groups was developed about 5 years ago, reported Kevin Forsyth, M.D., of Flinders University, Adelaide, Australia, and his colleagues.

Such vaccinations could help prevent transmission of the infection—commonly known as whooping cough—to infants, they said (Clin. Infect. Dis. 2004;39:1802-9). About 300,000 people worldwide die each year from whooping cough; most are infants who have not yet completed their primary vaccination series.

Pertussis infections are increasing due to loss of immunity in previously vaccinated adolescents and adults who haven't received booster shots. Among the immediate goals for improving immunity are universal adolescent vaccination and vaccination of adult target groups, including parents and other close contacts of newborns.

—Sharon Worcester

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If your A1C is higher than 7%, you are at increasing risk.

Diabetes patients with A1C levels higher than 7%, once thought to be in good control, are at an increasing risk of serious diabetes complications.¹

The A1C test reveals your average blood glucose over a period of two to three months, and is an important measure of your glucose control. While A1C levels of 8% to 9% were once considered acceptable, the American Diabetes Association recommends A1C levels of 7% or less.¹ The American Association of Clinical Endocrinologists (AACE) goes a step further, recommending A1C targets of 6.5% or less.²

The dedicated experts at Medtronic Diabetes urge every patient to reach these A1C targets to reduce your risk of serious complications like blindness, nerve disease, and kidney disease, as illustrated in the landmark Diabetes Control and Complications Trial (DCCT).³ Each 1% reduction in A1C reduces your risk of complications by 15% to 30%, and A1C levels less than 7% reduce your risk dramatically.¹

Insulin pump therapy helps you reach A1C targets better than Lantus^{®4}

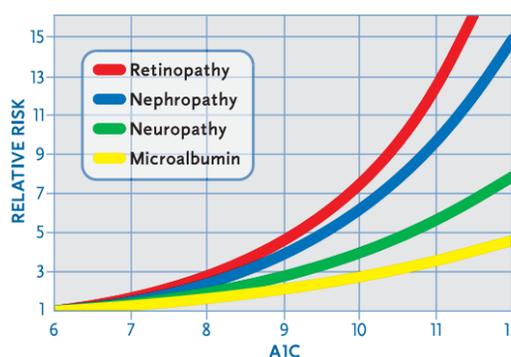
Several landmark studies have shown that in addition to reducing the risk of severe hypoglycemia, insulin pump therapy helps patients reach A1C levels closer to the recommended target of 6.5% or less.⁵⁻⁸ A Yale School of Medicine study has even shown that insulin pump therapy works significantly better than Lantus to help reduce A1C levels — in that study, six times as many insulin pump patients as Lantus patients reached A1C levels of 7% or less.⁴

For more information about reaching A1C targets with insulin pump therapy, contact Medtronic Diabetes at 1-800-MINIMED (1-800-646-4633) or visit www.minimed.com.

KEY POINTS

- The American Diabetes Association now recommends that diabetes patients reach A1C targets of 7% or less¹
- Each 1% reduction in A1C leads to a 15% to 30% reduction in long-term health risks¹
- Six times as many insulin pump patients as Lantus patients hit recommended A1C targets of 7% or less, according to a Yale study⁴

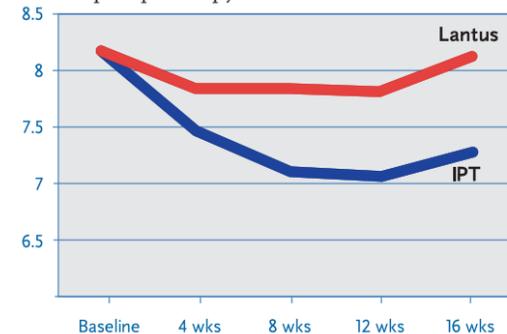
Risk of diabetes complications Relative to A1C level



Patients with A1C levels greater than 7% have increasing risks of serious long-term complications³

Metabolic control (A1C)

Insulin pump therapy vs. Lantus



At 16 weeks, A1C levels in the insulin pump therapy (IPT) group were significantly lower vs. Lantus ($P < 0.05$)⁴

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 3. The Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. *N Engl J Med*. 1993;329(14):977-86.
 4. Doyle (Boland) E. A randomized, prospective trial comparing the efficacy of continuous subcutaneous insulin infusion with multiple daily injections using insulin glargine. *Diabetes Care*. 2004;27(7):1554-8.
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