For hospitals with documented nosocomial legionellosis, particularly those with transplant patients, the copper-silver ionization system appears to be a cost-effective alternative to hyperchlorination and thermal disinfection for the control of nosocomial legionnaires' disease in healthcare facilities. Vigilance for cases of legionnaires' disease, routine environmental cultures for *Legionella,* and monitoring of ion levels should continue as part of the Infection Control Program to document efficacy or detect problems with the system. We perform *Legionella* environmental monitoring and copper-silver analysis every other month. If *Legionella* culture is performed in-house, the costs for supplies and media would be less than $1,000 per year. Ion analysis should be performed by atomic absorption spectrophotometry. The copper test kit provided with the ionization system offers only a crude estimate of copper concentration and no information on silver levels. Monitoring for silver is important, because elevated silver ion concentrations can cause discoloration of the hot water due to precipitation of silver chloride. For our hospital, the cost for copper and silver analysis for 1 year was approximately $2,000.

In summary, copper-silver ionization was more effective than superheat and flush in reducing *Legionella* colonization. If properly monitored, it does not affect water quality adversely and is comparable in cost to hyperchlorination. However, regular monitoring and maintenance of the system is required for optimal efficacy. Our data supports the opinions expressed by Goetz and Yu[15]; the apparent technical advance and efficacy of copper-silver ionization should be viewed with optimism, albeit restrained.

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Antimicrobial Threat Discussed

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On September 9-10, 1998, more than 300 representatives of political, expert, consumer, and producer groups attended a meeting held in Copenhagen to discuss the worldwide threat of resistance. Professor Fernando Baquero of the Center of Microbiology in Madrid said that bacterial resistance may return us to the age before antibiotics.

It was noted that some European countries have a daily consumption of more than a ton of antibiotics for both human and animal treatment. Recent figures for methicillin-resistant *Staphylococcus aureus,* for example, indicate that resistance is developing rapidly both within and outside Europe. In 20 surveyed centers around the world, only four Nordic countries (Denmark, Finland, Norway, and Sweden) had MRSA resistance levels below 2%. It was between 5% and 20% in Germany, Lithuania, Colorado US, New Zealand, Australia, France, and the United Kingdom. In five centers (California US, Spain, Belgium, Kuwait, and South Africa), it was between 20% and 40%, and in four centers (Poland, New Jersey US, Malaysia, and Greece), it was over 40%.

Reasons for the low rates in Scandanavia are because of the efforts to insulate their country. All patients and hospital staff who have been hospitalized or worked outside Scandanavia are isolated on arrival at a Scandanavian hospital until it is confirmed that they are not colonized with multidrug-resistant bacteria.

Conference attendees called for national and global plans to address the threat. Currently, WHO is trying to implement global coordination of efforts. The conclusions of the five workshops held at the conference are available on the conference web site at http://www.microbial.threat.dk.

The September 5, 1998, issue of the *British Medical Journal* contains a series of articles on antimicrobial resistance that were published in conjunction with the conference. The series of articles discusses the perceptions of the public's right for treatment, controversies in measures to reduce use, the need for education of the public and physicians, and international surveillance.

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