February News and Events

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Shortage of Antimicrobials Wider, More Severe Than Thought

The nation is facing alarming shortages of a broad range of antimicrobial agents, according to a new report from the Infectious Diseases Society of America’s (IDSA) Emerging Infections Network (EIN).

Nearly 90% of IDSA members who responded to the network’s survey say that, since September 1, 1999, they’ve experienced a shortage of at least one of these key drugs: meropenem, penicillin G, ticarcillin/clavulunate, cefazolin, and gentamicin. Additionally, 81% reported that inadequate supplies of these agents have caused them or their colleagues to change treatment regimens—a development that respondents said has affected about 10,000 of their patients nationwide.

While it’s well known that supplies of penicillin G are critically low after its main U.S. manufacturer abruptly stopped making it in 1999, experts say that the reported shortage of other agents and its impact on patients was both unexpected and a cause for concern.

“I’m surprised at how widespread the problem appears to be,” said IDSA President Catherine Wilfert, MD. “It’s not just a single drug, like penicillin G, which initially called attention to this issue. It’s a much broader and more serious problem than we thought.”

“This is perhaps a wake-up call—that something (supplies of antimicrobials) that we’ve always taken for granted is in jeopardy,” said Larry Strausbaugh, MD, a Portland, OR–based infectious disease specialist who heads the EIN. “And this may only be the tip of the iceberg. We may only be seeing a fraction of [practitioners] having difficulties with supplies of these drugs.”

Sixty-three percent of the 764 U.S. IDSA members surveyed returned their questionnaires, which were mailed in late November 1999. While shortages of penicillin G were reported by 76% of those responding, half of respondents also reported difficulties with supplies of gentamicin. Nearly 40% reported shortages of meropenem, and 24% said they had experienced shortages of ticarcillin/clavulanate.

The questionnaire also asked infectious disease specialists to write in other drugs for which supplies have been inadequate. Drugs named included amoxicillin, ampicillin, bactrim, cefotetan, and nafcillin.

Erythromycin Remains Gold Standard for Treatment of Pertussis in Infants

Erythromycin remains the treatment of choice for newborns with pertussis, despite a recent report linking its use to an increased risk of the stomach disorder infantile hypertrophic pyloric stenosis. At the same time, however, experts caution that both clinicians and parents of infants taking the drug should be aware of the condition to develop and alert for symptoms, which include projectile vomiting and irritability with feeding.

The report from the Centers for Disease Control and Prevention (CDC) was published in the December 18, 1999, issue of the Lancet and also in the December 17, 1999, issue of Morbidity and Mortality Weekly Report. In it, researchers analyzed a cluster of cases of pyloric stenosis among infants born...
at a Knoxville, TN, hospital in February 1999. Two hundred infants were given oral erythromycin to prevent pertussis after exposure to a healthcare worker with the disease.

Seven of the infants developed pyloric stenosis. Normally, the condition affects 1–3 infants out of 1,000 live births, according to Margaret Honein, MD, a CDC epidemiologist and lead author of the report. “There was a fairly strong link here,” Honein said.

While other antibiotics could be used to treat the condition, the CDC and other professional medical organizations continue to recommend use of erythromycin. One reason, ironically, is the recent CDC report. Despite the link it suggests, it adds to the body of knowledge about the drug and its use in infants, said Philip Walson, MD, a professor of pediatric pharmacology at Ohio State University who also practices at Children’s Hospital in Columbus, OH. Other agents’ effects on infants and their efficacy in treatment and prevention of pertussis simply haven’t been studied, Walson said, adding that more research is clearly needed.

Because pertussis is such a serious disease (0.5% of infants under the age of 6 months who get this condition die), Walson and other experts say erythromycin’s benefits continue to outweigh its risks. The drug’s efficacy in treatment and prevention is proven and its side effects are infrequent and manageable. Pyloric stenosis in particular is easily treatable and carries virtually no risk of mortality, Walson said.

“Erythromycin remains the gold standard, but if physicians are treating infants who are very young [for pertussis] they should carefully evaluate the risks and benefits of the drug and tell the parents to watch for signs and symptoms of pyloric stenosis,” Walson said. “Prompt recognition of symptoms minimizes the potential for harm.”

Cases of pyloric stenosis following use of oral erythromycin should be reported to the Food and Drug Administration’s MedWatch at 800-332-1088 or via the Internet (http://www.fda.gov/medwatch).

Revised Guidelines for Latent TB Infection to Be Released

Revised practice guidelines for treatment of latent tuberculosis (TB) infection were debuted at a symposium session at the annual meeting of the Infectious Diseases Society of America (IDSA) in Philadelphia in November, 1999. A key rationale for the revisions is the assumption that treatment of latent TB infection is required for TB elimination.

David L. Cohn, MD, associate director of Denver (CO) Public Health, gave a sneak preview of the guidelines, which represent the consensus of 50 experts. The guidelines were developed by the American Thoracic Society and the Centers for Disease Control and Prevention. Three additional organizations—IDSA, the American College of Physicians, and the American Academy of Pediatrics—are expected to endorse the guidelines upon their release.

Cohn, who is also a professor of medicine in the Division of Infectious Diseases at the University of Colorado Health Sciences Center, pointed out that changes in nomenclature reflect a paradigm shift, with targeted tuberculin testing of high-risk groups now preferred.

The guidelines eliminate routine baseline and follow-up laboratory monitoring, except for people with HIV infection, pregnant and postpartum women, and patients who have a history or risk of liver disease. They also provide criteria for tuberculin positivity by risk group, and they emphasize clinical monitoring for signs and symptoms of adverse effects. Recommended treatment regimens reflect concerns about patients’ adherence to isoniazid and its toxicity. The regimens also describe clinical applications for rifampin and address multi-drug-resistant TB.

“We are providing more options for TB-control professionals,” said Cohn, noting that the various recommendations have been rated by the quality of supporting evidence. Healthcare workers and public health departments can then choose among acceptable alternatives for addressing latent TB infection in their real-world situations.

The guidelines are expected to be approved in time to be published as a supplement to the American Journal of Respiratory and Critical Care Medicine in April 2000, with publication shortly thereafter in Morbidity and Mortality Weekly Report.

Note to readers: A commentary on these guidelines, by Dr. David Cohn, will appear in a forthcoming issue of CID.