At the national level, the authorities have a powerful tool in their reimbursement policy. Before January 1, 1996, the reimbursement for antimicrobials was 75% except for tetracyclines (50%) and cephalosporins, aminoglycosides, chloramphenicol, and trimethoprim-sulfonamide combinations (0%). After January 1, 1996, the reimbursement was reduced to 50% except for tetracyclines, cephalosporins, aminoglycosides, chloramphenicol, and trimethoprim-sulfonamide combinations (0%). Finally, on May 17, 1999, the reimbursement for fluoroquinolones was removed. The result of the 1996 change in the reimbursement was a reduction in use from 4,620 DDDs per 1,000 inhabitants in 1995 to 4,122 DDDs per 1,000 inhabitants in 1996 (an 11% reduction from one year to the next). Even more interesting, use has not yet returned to the level seen before the alteration in reimbursement. Of even greater magnitude was the reduction in tetracycline use in the same period, from 578 DDDs to 391 DDDs per 1,000 inhabitants, a 32% reduction. From 1998 to 1999, there was a 4.5% reduction of the use of antimicrobials in the primary healthcare sector; quinolone use declined in the same period from 2.0% to 1.8% of total use. This is an underestimate of the annualized reduction, because reimbursement was eliminated only for the last 7 months of 1999.

AN INTERVENTION WITH AN UNEXPECTED EFFECT

Finally, governmental interventions do not always have the intended effect on the use of antimicrobials. In September and October 1998, there was an epidemic of *Mycoplasma pneumoniae* pneumonia in Denmark.[9] For several reasons, the announcement of the epidemic in the national bulletin of communicable diseases, *EPI NEWS*, was delayed until mid-November. The news of the epidemic got highly visible coverage in the press. When it was mentioned in the national bulletin that the symptoms were treated with macrolides, there was demand from the patients to get a cure. In 1 month, the number of redeemed macrolide prescriptions doubled, to 90,000 per month. The use of macrolides thereafter gradually declined to a normal level for the season in April 1990, after a total of approximately 100,000 excess prescriptions.

CONCLUSIONS

The prudent use of antimicrobials reduces the risk for development of antimicrobial resistance. To maintain surveillance, it is necessary to get reliable data on the use of antimicrobials, preferably on a monthly basis. National data need to be broken down to smaller regions. It is often possible by an active approach to reduce the use of antimicrobials; this can be done at every level in the healthcare system. Finally, be careful when announcing outbreaks—you might get an adverse reaction!

REFERENCES

1. Malig C. The civil registration system in Denmark. Bethesda, MD: International Institute for Vital Registration and Statistics; 1996;66:1-9.
2. World Health Organization. Anatomical Therapeutic Chemical (ATC) classification index—including defined daily doses (DDD) for plain substances. Oslo, Norway: WHO Collaborating Centre for Drug Statistics and Methodology; 1995.
3. Capellà D. Descriptive tools and analysis. In: Dukes MNG, ed. *Drug Utilisation Studies. Methods and Uses.* Copenhagen, Denmark: WHO Regional Office for Europe; 1993:55-78. WHO Regional Publications, European series no. 45.
4. Bager F, ed. *DANMAP 98—Consumption of Antimicrobial Agents and Occurrence of Antimicrobial Resistance in Bacteria from Food Animals, Food and Humans in Denmark.* Copenhagen, Denmark: Danish Zoonosis Centre; 1999. http://www.svs.dk/uk/Organization/z/Lgo_zoo.htm.
5. Justesen T, Korsager B, Scheibel J. Vejledning i brug af antibiotika. In: Aldershvile J, Hansen MS, Kampmann JP, Vej-Hansen B, eds. *Lægeforeningens Medicinfortegnelse 1998.* 21st ed. Copenhagen, Denmark: Lægeforeningens Forlag; 1998.
6. Kolmos HJ, Little P. Controversies in management: should general practitioners perform diagnostic tests on patients before prescribing antibiotics? *BMJ* 1999;318:799-802.
7. Segovia J, Edwards A, Bartlett R. Newfoundland Panel on Health and Medical Care: Medical Care Utilization, 1992-5. St John's, Newfoundland, Canada: Memorial University of Newfoundland; 1997:88.
8. Friis H, Bro F, Mabeck CE, Vejlsgaard R. Changes in prescription of antibiotics in general practice in relation to different strategies for drug information. *Dan Med Bull* 1991;38:380-382.
9. EPI NEWS, No. 46, 1998. ISSN 1396-4763. Statens Serum Institut, Copenhagen, Denmark. http://www.ssi.dk/en/index.html.

First International Meeting on Hospital Infection Control Strategies With Limited Resources in American Countries

The Pan American Health Organization and Hermanos Ameijeiras Hospital are sponsoring the First International Meeting on Hospital Infection Control Strategies With Limited Resources in American Countries, to be held June 28-30, 2000, in Havana, Cuba. Persons interested in attending may contact Sr. Alberto Blanco, Cubanacan Travel Agency; e-mail, com.eventos2@viajes.cha.cyt.cu; fax, 53-7-286042 or 53-7-280082.

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