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Nota di contenuto	Antimicrobial Resistance: Issues and Options -- Copyright -- Preface -- THE FORUM -- THE REPORT AND ITS ORGANIZATION -- ACKNOWLEDGMENTS -- NOTES -- Contents -- Workshop Summary -- INTRODUCTION -- ISSUSE AND OPTIONS -- Workshop Report -- INTRODUCTION -- The Topic -- The Workshop -- THE COSTS OF ANTIMICROBIAL RESISTANCE -- Background -- Recent Case Material -- TRACKING THE PROBLEM: CURRENT APPROACHES TO SURVEILLANCE -- Characteristics of an Ideal Resistance Surveillance System -- Local-Level Surveillance -- National Systems -- The United States Centers for Disease Control and Prevention -- The Surveillance Network -- The

Canadian System -- The Icelandic Surveillance System -- International Systems -- CEM/NET -- World Health Organization (WHO) Initiatives -- SENTRY -- Surveillance and the Laboratory -- What Is Needed -- System Design Issues -- Funding for Surveillance -- HOW CAN THE SCIENCES HELP? -- Implications of Mapping the Genome -- Molecular Detection of Genes Associated with Antimicrobial Resistance -- Limitations of Phenotype-Based Detection Methods -- Knowledge About the Genetic Basis of Resistance -- Advantages and Limitations of Genotype-Based Antimicrobial Resistance Detection -- High-Density Oligonucleotide Arrays -- Applications of Genomics and Bioinformatics to the Development of Anti-Infectives -- A Role for New Therapeutic Approaches in Combating Antimicrobial Resistance -- Applications of Field Surveillance in the United States and Globally -- What Is Needed -- SOURCES OF RESISTANCE AND ANTIBIOTIC USE -- Sources of Resistance -- Antibiotic Use -- The Hospital -- The Community -- The Farm -- Factors in Inappropriate Use of Antibiotics -- Strategies for Judicious Antibiotic Use -- RESISTANCE AND FOOD PRODUCTION: ISSUES AND NEEDS -- Concerns and Perspectives from Producers -- A National Surveillance System. Strengthened Professional and Public Education -- Increased Research -- The Ecology of Resistance on the Farm -- U.S. Department of Agriculture -- U.S. Environmental Protection Agency -- Areas for Consideration and Action in Food Production -- Collaboration -- Research -- Education -- LEGAL AND REGULATORY CONCERNS -- Matters of Law and Possible Responses -- Surveillance -- Rational Use of Antimicrobial Drugs -- Research and Development -- Intellectual Property Protection -- New Products -- Existing Products and Compounds -- Targeted Drug Development -- Collaborative Research and Development -- Regulatory FDA Responses to Antimicrobial Resistance -- Restricted Distribution -- SUMMARY OF AREAS FOR CONSIDERATION -- Surveillance -- Information Systems -- Laboratory Systems -- Law and Regulation -- Response: Prolonging Effectiveness -- Education -- Law and Regulation -- Response: Developing New Products -- Incentives for Industry -- Research -- Education -- Agricultural Use -- Research -- FINAL COMMENTS -- NOTES -- APPENDIX A Inventory of Surveillance Systems -- DOMESTIC ANTIMICROBIAL SURVEILLANCE ACTIVITIES -- United States -- United States Military Surveillance -- United States: Regional Surveillance -- OTHER COUNTRIES -- Canada -- Denmark -- Finland -- Greece -- Iceland -- EUROPEAN-WIDE SYSTEMS -- GLOBAL SURVEILLANCE SYSTEMS -- APPENDIX B American Society for Microbiology Recommendations -- NATIONAL ANTIMICROBIAL SURVEILLANCE SYSTEM -- A. Indications -- B. Considerations -- 1. National surveillance system should do the following -- 2. Monitoring of organisms -- 3. Geographic locations of participants -- 4. Monitoring of populations -- 5. Methods -- 6. Locations of pathogen testing -- 7. Format for data -- 8. Data entry and analyses -- 9. Frequency of analysis and access -- 10. Organization of the surveillance system -- 11. Immediate recommendations. Appendix C Glossary and Acronyms -- Appendix D Workshop Agenda.

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## Sommario/riassunto

Antibiotic resistance is neither a surprising nor a new phenomenon. It is an increasingly worrisome situation, however, because resistance is growing and accelerating while the world's tools for combating it decrease in power and number. In addition, the cost of the problem--especially of multidrug resistance--in terms of money, mortality, and disability are also rising. This book summarizes a workshop on antimicrobial resistance held by the Forum on Emerging Infections. The goal of the Forum on Emerging Infections is to provide an opportunity

for representatives of academia, industry, government, and professional and interest groups to examine and discuss scientific and policy dilemmas of common interest that are specifically related to research on and the prevention, detection, and management of emerging infections. Organized as a topic-by-topic synthesis of presentations and exchanges during the workshop, the book highlights lessons learned, delineates a range of pivotal issues and the problems they raise, and proposes some simplified ideas about possible responses.

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