

ANTIBIOTIC RESISTANCE SURVEILLANCE REPORT

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The Philippine National Drug Policy (PNDP) has set as one of its four pillars the promotion of the rational use of drugs, to include the class of antimicrobial agents. This will rest on 3 main elements: setting up of standards for rational drug use, monitoring of usage through surveillance data and performance of remedial action where flaws are identified. The Research Institute for Tropical Medicine (RITM) has participated in the program by providing quality antimicrobial resistance surveillance data collated and analyzed from sentinel regional and central laboratories. The project's general objective was to determine the current status and developing trends of bacterial resistance to antimicrobial agents in the country. By doing so, the institute hopes to provide accurate and reliable data for use by national policy makers and clinicians in making decisions on optimal antibiotic usage. The antimicrobial resistance surveillance project's (ARSP) specific objectives are: 1) To identify and strengthen regional laboratories which will participate in the program, 2) To improve the mechanism for data collection, reporting, collation, analysis and timely feedback, 3) To perform special studies like determination of minimal inhibitory concentrations among bacterial isolates with unusual susceptibility patterns, 4) To ensure the implementation of quality control procedures and to improve the quality assurance program in microbiology among member laboratories, 5) To monitor and evaluate the operations of the program, and 6) To disseminate the results of surveillance to appropriate groups.

The ARSP had thus been undertaking surveillance activities for the last ten years as of 1998 and had achieved the following: 1) providing important susceptibility data at the hospital level and, more importantly, at the national level for some control programs of the Department of Health, 2) introducing an updated computer program for data entry and analysis by the Data Management Unit of RITM, (although currently, the program utilizes the WHONET computer program of the WHO) 3) disseminating generated data through publications and lectures, 4) piloting an external quality assessment scheme since 1992 by sending "unknowns" on agar slants to participating laboratories to assess the performance of these laboratories and ensure that data submitted are accurate and reliable, 5) inclusion of more sentinel sites outside of Metro Manila to include the Celestino Gallares Memorial Hospital (CGMH) in Bohol (as of 1994), Zamboanga Medical Center (ZMC) in Zamboanga City (as of 1994), the Eastern Visayas Regional Medical Center in Tacloban City (as of October 1998), and the Corazon Locsin Montelibano Memorial Medical Center in Bacolod City (as of October 1998), 6) initiation of a gonococcal surveillance program in 1995, 7) performance of confirmatory tests on bacterial isolates with "unusual" susceptibility patterns using minimum inhibitory concentrations (MICs), confirming for instance the first proven methicillin-

resistant *Staphylococcus aureus* isolates in the Philippines, 8) implementation of measures to upgrade laboratory performance like holding a three week laboratory workshop among medical technologists of sentinel sites, carrying out follow-up visits including distribution of supplies and ATCC reference strains to almost all ARSP sentinel sites, distribution of reference materials like guidelines of the National Committee for Clinical Laboratory Standards (NCCLS), undergoing a two month in-house training in microbiology at RITM by four medical technologists to further improve their skills, 9) initiation of policy initiatives by providing significant inputs on a position paper on the rationale of an educational strategy addressing the rational use of antibiotics, 10) undertaking research projects on specific organisms known to be causing significant problems of antibiotic resistance like *Neisseria gonorrhoeae* and *Streptococcus pneumoniae*, and nosocomial pathogens, 11) initiation of collaborative research and surveillance with organizations like the World Health Organization, Centers for Disease Control (CDC), Atlanta, U.S.A. and Asian Network for Surveillance of Resistant Pathogens (ANSORP), 12) improvement of technical skills of RITM staff through overseas training and participation in external quality assurance programs such as the WHO Quality Control and Proficiency Testing, WHONET Quality Control Program (c/o the CDC), and the WHO Gonococcal Antimicrobial Surveillance Quality Assurance Program, 13) development of standard operating procedures to be used when monitoring ARSP laboratories including a standard form, 14) provision of laboratory supplies to sentinel sites. and 15) provision of expert opinion on anti-infectives for the National Drug Committee and Bureau of Food and Drug.

Specific examples of activities of the ARSP from 1997-98 include publications, training, lectures, and other activities for advocacy related to rational antibiotic use.