

REVIEW

ANTIMICROBIAL RESISTANCE AMONG PATHOGENIC BACTERIA IN SOUTHEAST ASIA

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Abstract. Antimicrobial drug resistance is a problem in both developing and developed countries, in hospitals as well as in the community. Much data exists about antimicrobial resistance in Southeast Asia, but this information is fragmented, being published in different papers from different countries over several decades. We reviewed all available information about antimicrobial resistance in Southeast Asia using the PubMed database, concentrating on bacteria that commonly cause infection. From January 1, 1995 to January 1, 2007, 97 reports were published with accurate data regarding resistance patterns among the major pathogens. Thailand was the country where most of the published data were found. No reports were published for East Timor. From the available data, the following trends were observed: 1) there was a high prevalence of resistance to penicillin among *Streptococcus pneumoniae* and *Neisseria gonorrhoeae*; 2) pathogens causing diarrheal diseases are now often resistant to inexpensive, older antibiotics; 3) among Enterobacteriaceae and nonfermenting gram-negative bacteria, resistance to virtually all antibiotic classes has been reported, but it is unclear whether multidrug resistant gram-negative bacteria have emerged as a major problem; 4) the prevalence of methicillin-resistant *Staphylococcus aureus* (MRSA) is not clear; in some countries, such as Singapore, MRSA is endemic in the health care system. This review shows that antimicrobial resistance to pathogenic bacteria has been and still is on the rise in Southeast Asia. However, there is great variation in resistance by hospital, patient type and country.

Keywords: pathogenic bacteria, antimicrobial resistance, Southeast Asia

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