

PERANAN PENGEMBANGAN OBAT DALAM PENEMUAN OBAT BARU UNTUK MENGATASI MASALAH RESISTENSI BAKTERI TERHADAP ANTIBIOTIKA

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Abstract

The discovery, development, and clinical use of antibiotics during the 20th century have decreased substantially the morbidity and mortality from bacterial infections. Since 1980, a reduced rate of introduction of new agents has been accompanied by an alarming increase in bacterial resistance to existing agents, resulting in the emergence of a serious threat to global public health. The intense use and misuse of antibiotics are the major forces associated with the high numbers of resistant pathogenic and commensal bacteria worldwide. Both the volume and the way antibiotics are applied contributes to the selection of resistant strains. Still, other social, ecological and genetic factors affect a direct relationship between use and frequency of resistance. Unfortunately, the increasing emergence of acquired resistance to antibiotics seriously threatens their effectiveness for the therapy of both nosocomial and community-acquired infections. The development of new prophylactic and therapeutic procedures is urgently required to meet the challenges imposed by the emergence of bacterial resistance.

Keyword: Antibiotic, resistance, drug development

I. PENEMUAN DAN PENGEMBANGAN OBAT

Dilahirkan oleh ilmu kimia tetapi perkembangannya banyak dipengaruhi oleh ilmu farmakologi, penelitian obat memiliki kontribusi yang sangat besar terhadap perkembangan pengobatan dalam satu abad terakhir. Penelitian obat seperti yang kita kenal saat ini dimulai ketika ilmu kimia mencapai tahap kematangan dalam prinsip dan metode yang diaplikasikan untuk mengatasi masalah diluar ilmu itu sendiri, dan ketika farmakologi berkembang menjadi suatu disiplin ilmu sendiri (Drews, 2000).

Penelitian obat meliputi beberapa disiplin ilmu yang berbeda untuk mencapai satu tujuan yaitu pengembangan suatu metode terapi yang baru.