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Local susceptibility pattern- needs mandatory implimentation

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Some facts regarding therapeutics are properly known but due to poor implimentation still needs attension and awareness to overcome routine problems like microbial resistance.The basic and simple solution is mandatory implementation of treating the patients according to local susceptibility pattern which is negleted most of the times till now. So, its just my kind effort to recall the same.

Microbial resistance is a significant phenomenon in terms of it's clinical and economic impact. Patients who were infected with resistant organisms had longer hospitalisations than those infected with susceptible bacteria. In addition, increased costs were associated with infection caused by resistant species and increased mortality, despite the fact that patients received appropriate antimicrobial therapy [1].

Back in the 1940s and 50s when the first antibiotics such as penicillin came into clinical use,they were held as miracle drugs. By killing the bacteria which was the cause of many of human kind's worst infections diseases, such as tuberculosis and pneumonia, countless lives were saved. But not all miracles last forever. Today we are again on the verge of a "medical disaster" that would return physicians to the pre-penicillin days when even seemingly small infections could turn lethal for lack of effective drugs.

This stems from the fact about the remarkable ability of the bacteria to develop resistance to almost any antibiotic, medical research has thrown at them . When given enough time, it seems this wily microbes will learn to chew up, spit out or shield themselves to any drug. And when one strain learns a new resistance strategy, it is not shy about sharing it with others, an ability that had played a crucial role in the rapid spread of an antibiotic resistance. This is equally worrisome as is the relative dearth of new antibiotics in the pipeline [2].

On account of increasing trend of bacterial resistance during antimicrobial therapy, it has been subjected to extensive study. However, the impact of various microbs infection varies from centre to centre depending on the sensitivity pattern of the strain in the different parts of the world . Hence what is required as a prerequisite is adequate authentic data on the resistant patterns of microorganisms in a local community. This would be more helpful for proper implementation of antibiotic policies and guidelines to prevent the unnecessary and indiscriminate use of antibiotics to reduce morbidity and mortality rates in bacterial infection in patients, thus facilitating health care services and improving cost effectiveness of the treatment[3].

In this apparent drought of new drugs the emergence of multi drug resistance is a phenomenon of concern to both the clinicians and the pharmaceutical industry, as it is the major cause of failure in the treatment of infections disease, prolonged hospitalization, increased morbidity, mortality and increased health care costs. Antimicrobial resistance is of important concern for clinicians treating patients with confirmed or suspected infection. A new approach is required to overcome this nagging problem, where the infection must be treated preferentially based on epidemiological data and local susceptibility patterns considering the locally available antibiotics in the set up [5].

This outlook is supported on the fact that the prevalence of resistant mechanisms of a particular organism varies geographically and therefore most tables contain the MIC values for susceptible strains. The local value of an individual antibiotic will depend to a large extent on how frequently the strains isolated from clinical lesions differ from standard susceptibility patterns. Hence forth, what is now a pre-requisite is the knowledge of the susceptibility pattern of microorganisms responsible for nosocomial infection to antimicrobial agents used in a local community. This information would not only serve as a guide to treatment for individual patient, but also is a valuable data for identifying the prevalence of resistant strains within and between different treatments centers – locally in the state, within the country and in relation to different parts of the world, as well as it will also definitely help in the proper implementation of antibiotic policies and guidelines to prevent much unnecessary and indiscriminate antibiotic treatment [4].

Prevention of the spread of antibiotic resistant organism is achieved by paying attention to hospital hygiene and infection control practices. Shortening the period of hospitalization, ‘day care surgery’ and ‘hospital at home’ initiatives also may contribute towards reducing the spread of resistant organisms . Realistically speaking, the solution to dealing with antibiotic resistance lies in the development of new antibiotics or focusing on other alternatives such as vaccines and probiotic therapy [6].

Among all, the most important thing is proper implementation of prescription policy according to local susceptibility pattern that is well known but most neglected thing.

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