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# Cefotaxime Used as Paracetamol- Antibiotic Resistance in Developing Countries, A Global Upcoming Catastrophe Unless Urgently Addressed

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## Introduction

“Doctor, I’d flu and I’ve taken one cefotaxime injection a couple of days ago but the flu persists” I’ve been shocked hearing this statement from an averagely educated patient in her mid-fifties! She said it in a very calm and confident manner as if cefotaxime, the powerful third generation cephalosporin antibiotic, is a similar medication to a tablet of the famous analgesic paracetamol or even like a piece of candy and her husband simply agreed with her! Perhaps now you may imagine the very serious situation revealing in one study 72% of isolates from Egyptian hospitals to be resistant to third generation cephalosporins and in another one 38% of isolates showing multiresistance [1, 2].

Antibiotic resistance is a major health problem in the developed as well as the developing countries that costs horrible loss of lives as well as of money; multi drug resistance has been shown to be associated with a three-fold increase in the risk of hospital mortality and approximately 50,000 deaths in the US and EU have been attributed to antibacterial resistance each year, together with several million days of hospital care [3, 4].

The problem is much harder in developing countries and one of the reasons for its hardship is the paucity of pan-regional studies testing the prevalence of antibiotic resistance; one of the first studies of that kind performed with the integration of many laboratories in several countries of the Mediterranean has revealed some horrible statistics, e.g. methicillin resistance in *Staphylococcus* reaching 65% in Jordan and 40% of samples were non-susceptible to fluoroquinolones in Turkey [1].

Ignorant practices misusing the antibiotics especially the powerful ones as did the lady in the example above is undoubtedly a major cause of resistance and in the era of globalization, the resistant bacteria have “wings” to invade any country, thus easily making the local problem a global one and hence the term “glocal” is gaining more and more attention. A recent example is the case report describing the introduction to the Netherlands of various multi-drug resistant bacterial strains,

including an NDM-1-producing *Klebsiella pneumoniae*, through a traveller returning from Egypt, where they had been admitted to a private hospital. All family members of the patient were colonised with one or more extended-spectrum beta-lactamase producing strains [5].

Unfortunately, relatively little is being done to help infection control in developing countries and while billions of dollars of aids are being spent cheerfully every year to help economic or political improvement in these countries without much success, very little is spent to raise the awareness and help to contain of a serious danger like misuse of antibiotics or the increasing threat of antibiotic multi-drug resistance. Finally, I strongly urge the stakeholders and health policy advisors in EU and USA to do much more effort to change this unwise attitude; otherwise one may weep in a time in which weeping is too late.

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