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## Ecopharmacology - Overview

T R Sreekanth

Osmania Medical College, India

Ecopharmacology also referred as environmental pharmacology, pharmacoenvironmentology and ecopharmacostewardship. Ecopharmacology is a new concept and an emerging science which deals with the Pharmaceuticals in environment [PIE] and the adverse impact of the pharmaceutical active ingredients on the environment. Well documented example is the decline of vulture population in South-East Asia after eating carcasses of the animals treated with diclofenac and Ethinyl estradiol [EE2] adversely affecting fish through its feminization which are wide spread in British rivers. It is an important science to be considered and evaluated as it is still in its infant stage in almost all parts of the world. Environmental risk assessment [ERA] helps in identifying the Pharmaceutical active ingredients in the environment. ERA is the ratio of Predicted Environmental Concentration [PEC-Exposure assessment] to the Predicted No Effect concentration of the products. If risk quotient is  $>1$  appropriate risk management measures are needed. The PNEC is derived from Eco toxicological studies done on algae, daphnids, and fish together with an assessment factor that accounts for interspecies difference in toxicity. Out of many regulatory requirements European Union [EU] regulations are currently most demanding. The EU has described a two-phased approach with phase I calculation of environmental concentration of medicinal products and in phase II information on the physical, chemical and toxicological properties are obtained and assessed in relation to the environmental exposure [EMA] guidelines. Hence ecopharmacology should be a part of the regulatory requirement prior to the launch of any new drug.

## Biography

T R Sreekanth completed his MBBS in 2006 after that he continued education in Connecticut [M. S Human Nutrition] till 2008, then completed his USMLE steps 1&2. In 2010, he worked in Sagar Apollo hospitals in Bangalore dealing all sort of emergency cases and patients in the wards. From 2011 to 2012, he pursued Diabetology course from Public Health Foundation of India. From 2012 to 2013, he finished PGDMRCH from UNICEF a management programme. In 2013, he started his Post graduation MD Pharmacology in Osmania Medical College. He has 4 publications along with my friend in various International journals.

[drsreekanth\\_99@yahoo.com](mailto:drsreekanth_99@yahoo.com)