

TRANSFORMING TOXICOLOGY LANDSCAPE FOR SAFER AND SUSTAINABLE TOMORROW



Dr Ruben Thanacoody

is a consultant physician and clinical toxicologist at Newcastle upon Tyne Hospitals NHS Trust, Honorary Senior Clinical Lecturer at Newcastle University, and Director of the Regional Drugs and Therapeutics Centre, National Poisons Information Service (Newcastle Unit) and UK Teratology Information Service, Newcastle-upon-Tyne, UK. His research interests include adverse drug reactions, optimisation of antidote treatment of poisoned patients and recreational drug use.

Novel Benzodiazepines

Benzodiazepines were first synthesised in the 1950s and have been widely used as licensed medicines for the treatment of anxiety, insomnia, spasticity or epilepsy. In the past decade, there has been increasing non-medical use of novel ('designer') benzodiazepines. Some were previously developed as potential medicines or are licensed as medicines in some countries but many others are structural chemical modifications or metabolites of licensed benzodiazepines. Novel benzodiazepines are full-agonist ligands at the GABA-benzodiazepine receptor complex and are associated with important clinical effects including drowsiness, psychomotor impairment, unsteadiness and incoordination, memory loss, confusion, loss of consciousness and respiratory depression, especially if used in combination with alcohol or other sedatives. Novel benzodiazepines have been associated with a significant increase in annual numbers of deaths where a benzodiazepine has been implicated in the UK, particularly in Scotland. This talk will focus on the classification and pharmacology of novel benzodiazepines and discuss the prevalence and potential health hazards associated with recreational misuse.