ANALYTICAL MONITORING AS A TOOL TO DETECT ILLEGAL SUBSTANCES IN FOODS AND FOOD SUPPLEMENTS

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Abstract: From time immemorial, foods have been used to provide an unsuspected vehicle of poisons. More recently, new criminal approaches use foods and food supplements which contain illicit substances having pharmacological effects, facilitating the international transport of drugs, drug-pushing and the consumption of banned ingredients. Specially targeted is the world of sport, where athletes often believe they cannot succeed without taking performance-enhancing drugs. The misuse of substances having pharmacological activity has become so widespread in sport that the health of many athletes is compromised. This paper illustrates the use of analysis of sports supplements as part of a broad system of monitoring the availability of banned products. Specifically, the illegal inclusion of ephedrine in a food supplement consisting largely of herbal ingredients has been demonstrated using HPLC separation followed by mass spectrometry

Key words: food supplements, criminal activity, poisoning, food contamination, herbal supplements, doping.

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