

Can Rapid Tests Be Used to Detect and Identify New Synthetic Drugs (NSDs)?



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AIMS: The goal of the present study was to examine the ability of colour chemical tests used to test ecstasy tablets for the presence of 3,4-methylenedioxymethamphetamine (MDMA) and of rapid immunodetection kits to detect selected compounds referred to as new synthetic drugs (NSDs). **METHODS:** A total of 24 compounds, including some typical illegal drugs of abuse, were examined. **RESULTS:** As expected, the use of the Marquis, Mecke, Mandelin, and Simons reagents produced various colour

reactions of NSDs. In several cases, however, cross-reactions between various NSDs and traditional drugs of abuse (e.g. MDMA or amphetamine) were observed. Immunodetection kits showed almost no sensitivity to NSDs, and cross-reactions were observed only for two substances (PMMA and α -MT). **CONCLUSIONS:** The results of these tests make it evident that it is necessary to develop new group-specific rapid detection kits that will make it possible to detect the vast majority of NSDs.

KEY WORDS: NEW SYNTHETIC DRUGS (NSDs) – TESTING – DETECTION – COLOUR TESTS – RAPID IMMUNODETECTION KITS – MARQUIS – MECKE – SIMONS – MANDELIN – MEPHEDRONE – 4-MMC – ECSTASY – MDMA

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