The composition of anabolic steroids from the illicit market is largely unknown: implications for clinical case reports

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As Ammatuna and Nijziel note, 1 obtaining an accurate and comprehensive drug history is crucial in the treatment of patients presenting with symptoms that can potentially be attributed to the use of anabolic steroids, including renal disorders. Most people who use anabolic steroids obtain these drugs from the illicit market. 2 Here, many products are manufactured in ‘underground laboratories’ operating outside the formal parameters of the production of licensed medicinal products. 3 In the UK, investigations by the Medicines and Healthcare products Regulatory Agency (MHRA) have highlighted the issue of adulterated drugs on the UK illicit market, including anabolic agents, leading to drug seizures, arrests and illicit online retailers being shut down. 4 In a number of cases, analysis has identified that drugs claiming to contain anabolic steroids often include a different amount of pharmacologically active substance than declared on the label, a different active substance or no active substance, whatsoever. 3 Further, drug analysis has shown that illicit manufacturers prepare their own mixtures of anabolic steroids containing a blend of active substances unlike that of any authorized medicinal products. 5,6 Due to poor manufacturing, products may also be accidentally contaminated with toxic chemicals and preparations for injection may be unsterile, resulting in local or systemic infections. 2,5 In addition, many people who use anabolic steroids take a variety of off-the-shelf products marketed as dietary or nutritional supplements that are increasingly being found to contain pharmacologically active substances, such as appetite suppressants, sildenafil (used for erectile dysfunction) and stimulants, that have not been listed on the package. 2,7 The fact that in most cases, anabolic steroid users remain unaware of their intake of specific active substances, means that many case reports suffer from an over-reliance on self-reported drug use. 8

Healthcare professionals who come into contact with patients using anabolic steroids should be aware of these issues. Where possible, and when resources are available, drug vials, tablets and/or biological samples should be collected and submitted for analysis to identify the pharmacologically active substance, along with any contamination. These data will add considerably to information retrieved from the patients’ drug histories, 1 improving both diagnosis and prognosis. Furthermore, collecting data on the contents of these products will contribute to our understanding of the causal relationship between various kinds of anabolic steroids and specific health harms in case reports pertaining to patients’ usage of these drugs. 9

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References


