

Synthetic cathinones (SCs) are a group of  $\alpha$ -ketone amphetamine compounds derived from cathinone, a naturally occurring psychoactive component found in *Catha edulis*, a plant traditionally consumed in the Horn of Africa. SCs belong to the so-called New Psychoactive Substances (NPS) and have been one of the main active components of “bath salts” or “plant feeders.” They are perhaps one of the psychoactive substances most involved in the “legal high” phenomenon. Initially, they were a legal alternative to other illegal drugs, such as 3,4-methylenedioxy-methamphetamine (MDMA or ecstasy), cocaine, or amphetamine, because of their psychoactive properties, like an entactogenic effect similar to the one of MDMA and a stimulating effect like that of cocaine. Among this group of substances, the most popular has been mephedrone, or 4-methylmethcathinone, followed by butylone, methylone, and some phenylpyrrolidines, such as methylenedioxypropylone (MDPV) and  $\alpha$ -pyrrolidinopentiophenone ( $\alpha$ -PVP) [4]. The control of mephedrone in Europe took place in April 2010 (UK), and it was not until July 2012 that mephedrone and methylone were classified in Schedule I of the Controlled Substances Act in the United States. Several side effects have been widely described as the result of mephedrone consumption, such as cardiovascular disorders, rhabdomyolysis, renal failure, agitation, bizarre behaviors, aggression, and even death. In addition, the addictive potential of mephedrone has been widely described. Its consumption has been associated with increased risk of presenting psychotic symptomatology (delusional thoughts, hallucinations, or disorganized speech). Although, in most cases, psychosis resolved within a few days, there have been reports of persistent psychotic symptoms for weeks after a single consumption of SCs. Mephedrone has been very popular among young men who frequent nightclubs, especially in men who have sex with men (MSM). Thus, in the UK, it became the sixth most consumed substance in gay bars and nightclubs, after alcohol, tobacco, cannabis, MDMA, and cocaine. Recent concern has arisen around the intravenous (IV) administration of mephedrone and other cathinones in some groups of drug users, especially in MSM who engage in a practice known as slamming. This term refers to the IV use of mephedrone and other substances at chemsex parties, where subjects frequently exchange syringes and engage in risky sexual behavior. This behavior may lead to medical and psychiatric problems associated with IV drug injection, including the contraction of sexually transmitted diseases (STDs) or viral infections, such as human immunodeficiency virus (HIV) and hepatitis C virus (HCV).