AMB-FUBINACA & Related Compounds – Backgrounder

What is AMB-FUBINACA?

The drug AMB-FUBINACA (methyl 2-(1-(4-fluorobenzyl)-1*H*-indazole-3-carboxamido)-3-methylbutanoate) is a synthetic cannabinoid. It was first synthesized by Pfizer in 2009, along with numerous other related compounds. It is also known as FUB-AMB and MMB-FUBINACA. Other related synthetic cannabinoids in the Fubinaca family include AB-FUBINACA, ADB-FUBINACA, AB-PINACA, ADB-PINACA, 5F-AB-PINACA, APINACA, ADB-CHMINACA, MDMB-CHMIINACA, and many others. These cannabinoids usually have similar parent chains that make up their chemical structure. They are designed to mimic the effects of delta-9-tetrahydrocannabinol (TCH) contained in marijuana.

AMB-FUBINACA, and its related compounds, act as an agonist on the cannabinoid receptors in the central nervous system. Potential side effects of these synthetic cannabinoids include decreased body temperature, decreased or irregular heart rate, agitation, drowsiness, unresponsiveness, and lightheadedness.

What is it used for?

Pfizer was working on developing a synthetic cannabinoid to treat pain in cancer patients, as synthetic cannabinoids may be more likely to ease pain without the effects of THC (i.e., producing a high in the user). During the clinical trials, Pfizer discontinued their research into properties of the drug. Currently, there are no approved medical uses in humans for AMB-FUBINACA or its related compounds.

Why is it dangerous?

The US National Drug Early Warning System (NDEWS) released 2016 data from the Drug Enforcement Agency (DEA) indicating that 37 different types of synthetic cannabinoids had been identified in 2016; AMB-FUBINACA accounted for the majority (almost 23%) of those identifications. Synthetic cannabinoids are the most rapidly growing class of designer recreational drugs. With this rise in new cannabinoids, users may be unaware of what they are consuming.

Research has shown that AMB-FUBINACA is up to 85 times more potent than THC. Side effects associated with long-term use or large doses include psychosis, delirium, cardiotoxicity, seizures, hypothermia and death.

Fatalities and treatment

In July 2016, a medical emergency in New York involved 33 people adversely affected by AMB-FUBINACA. Among those 33, 18 people were hospitalized. Fatalities caused by FUBINACA-related compounds have occurred in Europe, with 29 deaths recorded between 2014 and 2016 as a result of MDMB-CHMIINACA overdoses. Currently, there are no treatments to reverse an overdose of synthetic cannabinoids; symptoms can only be managed with supportive treatment.

AMB-FUBINACA and the law

Many drugs in the FUBINACA family are classified as a Schedule II drugs in the Canadian Controlled Drugs and Substances Act. Possession and trafficking of a Schedule II drug are both punishable by a maximum of 5 years imprisonment; production or exportation of schedule II drug is punishable by a maximum of lifetime imprisonment.

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