



EU EARLY WARNING SYSTEM ALERT

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Issued by:	EMCDDA	Transmitted by:	Rita Jorge
Recipients:	National Early Warning System Correspondents (National Focal Points)		
Subject:	Deaths associated with cyclopropylfentanyl — Sweden, June–August 2017		

1. Information

In the past few years there has been a large increase in the availability of new opioids in Europe. This includes derivatives of the narcotic analgesic fentanyl, known as 'fentanils'. New opioids are sold and used as substitutes for illicit opioids and prescription opioids, sometimes without the knowledge of the users who may believe they are taking other substances. An increasing number of serious harms, including deaths, have been associated with these substances.

The subject of this alert is **cyclopropylfentanyl** (*N*-phenyl-*N*-[1-(2-phenylethyl)-4-piperidyl]cyclopropanecarboxamide), a fentanyl which has recently been detected in deaths in Sweden.

Given its structural similarity to fentanyl and limited data from an animal study, cyclopropylfentanyl is expected to act as a **narcotic analgesic** [1]. The effects of such substances include euphoria, relaxation, analgesia, sedation, bradycardia, hypothermia and respiratory depression. Cyclopropylfentanyl is also likely to have an abuse liability and dependence potential.

Cyclopropylfentanyl was **formally notified** in August 2017 on behalf of Latvia. The notification was related to a seizure of a small amount of white powder (0.0345 g) by police on 25 July. No other seizures or collected samples have been reported to the EMCDDA.

Since the formal notification, Sweden has reported **22 deaths with confirmed exposure** to cyclopropylfentanyl. The deaths occurred between June and August 2017. A range of other substances were detected in most of the deaths, including other opioids in at least 8 cases. These included morphine, methadone, buprenorphine and U-47,700. In most of cases, the cause of death has not yet been reported as the deaths are still under investigation. In at least 6 cases, cyclopropylfentanyl caused or contributed to the death.

At present there is no further information regarding the supply of cyclopropylfentanyl in Europe. In Georgia, United States, cyclopropylfentanyl was associated with an outbreak involving more than 40 overdoses, 5 of which fatal, in a two-week period in June 2017. The substance was identified with U-47,700 in counterfeit Percocet tablets [2, 3].

Similar to other fentanils, the most serious acute health risk from using cyclopropylfentanyl is likely to be respiratory depression, which in overdose could lead to apnoea, respiratory arrest, and death [4–8]. The acute health risks associated with cyclopropylfentanyl may be exacerbated by: the difficulty in diluting the substance which may be active and potentially fatal in small amounts; a lack of experience with its effects and dosing; the use of other central nervous system depressants at the same time (such as other opioids,



benzodiazepines, gabapentanoids, and alcohol); a lack of tolerance to opioids; and, using the substance alone (such as at home) which would make it more difficult for users to call for help in the case of poisoning.

The antidote **naloxone** is likely to reverse acute poisoning, including respiratory depression, caused by cyclopropylfentanyl [9, 10]. Recent clinical and community experience in treating poisonings caused by fentanils suggests that higher doses and additional doses (including infusions) of naloxone may be required to fully reverse poisoning in some cases [11–14]. In the recent outbreak in Georgia, involving counterfeit Percocet tablets containing cyclopropylfentanyl and U-47,700 it was reported that in some cases first responders needed to administer larger than normal doses of the antidote naloxone in order to treat the poisoning [3].

2. Data Use Restrictions

If you received this alert as a national early warning system correspondent (NFP), please note that this alert must be restricted to your national early warning system network. Do not make it public. If you have any questions in this respect, please contact the EMCDDA.

If this alert has been sent to you by your national early warning system correspondent (NFP), please direct any questions to them.

If you plan to use the information in this alert as part of a risk communication aimed at users and potential users, please note that a challenge in respect to reducing risk in these groups is the balance between providing information to prevent harm and the unintended consequences of communicating the risks of opioids. There is evidence that using terms to describe opioids as 'potent', 'strong', 'deadly', and 'toxic' can lead some individuals to specifically seek out these substances. Such unintended promotion of the substances may also extend to former users and other groups.

3. Action Required

The EMCDDA requests that you report any additional data you may have on cyclopropylfentanyl so that we can improve our understanding of the potential risks it may pose to Europe. We are particularly interested in analytically confirmed detections of the substance, including those involving serious adverse events. Data should be reported as soon as possible to: ews@emcdda.europa.eu

4. Further Information

Further information on cyclopropylfentanyl is available from:

- EU Early Warning System Formal Notification of *N*-phenyl-*N*-[1-(2-phenylethyl)-4-piperidyl]cyclopropanecarboxamide (cyclopropylfentanyl) by Latvia as a new psychoactive substance under the terms of Council Decision 2005/387/JHA. EU-EWS-RCS-FN-2017-0029. Issued on 4 August 2017.
- EDND: https://ednd.emcdda.europa.eu/html.cfm/index7246EN.html?SUB_ID=676&detail



5. Acknowledgements

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6. References

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