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MORTALITY RELATED TO NEW SUBSTANCES OF ABUSE IN THE UK

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In recent years the UK has experienced a fall in deaths involving 'traditional' stimulants such as amphetamines, cocaine and MDMA. This has been evident in figures published by the General Mortality Registers covering the UK, as well as by the National Programme on Substance Abuse Deaths (np-SAD). Its database contains more than 25,000 deaths¹. Data show that cocaine, amphetamine and MDMA deaths peaked in 2007, ketamine cases in 2008, GHB/GBL and piperazines in 2009. Twenty-seven novel psychoactive substances (NPS) were found at post-mortem toxicology in 124 cases notified between September 2009 and April 2012, 24 of which were also implicated in the causing or contributing to deaths (n=81). They can be grouped in the following way: Aminoindanes; Amphetamine-type substances (ATS); Benzofurans; Methoxetamine; Methcathinones; Natural products (*Datura*, *Salvia*); Phenazepam; Piperidines; Synthetic cannabinoids; Tryptamines; Figure 1 provides a summary of the key findings.

- Gender – even split for Aminoindanes & ATS, to lesser extent for Methcathinones, the rest are typically male
- Age – mean age range = 18.5 - 38.5, lower than typical np-SAD case (mid-40s)
- Ethnicity – where known, mostly White - typical of np-SAD
- Addiction – most had a history of previous drug use; higher than most np-SAD cases
- Place of death – More than half in residential premises, but significant proportions in hospital
- Manner of death – most attributed to accidents or drug abuse, but for methcathinones (typically mephedrone) large number of suicides/open verdicts
- Reflected in underlying cause – mostly accidental poisonings but many traumatic deaths, especially hangings for mephedrone
- The mean number of PM drugs ranges from 1-9, but typically 3 or 4
- This is in line with findings for other UK stimulant deaths, reflecting polysubstance use
- NPS can kill of their own accord²

Figure 1. Main findings for NPS deaths reported to np-SAD 2009-12.

Patterns of drug use in the post-mortem toxicology for mephedrone and similar methcathinone cases resemble those reported by surveys and online users' fora. Polysubstance use is common, especially the coingestion of alcohol, stimulants and 'legal highs'. Pathologies exhibited in cases exhibit similarities to those noted by np-SAD for amphetamine, cocaine, MDMA and khat.

References

1. Ghodse H, Corkery J, Oyefeso A, Schifano F, Ahmed K, Naidoo V (2009). Drug-related deaths in the UK: Annual Report 2009. Drug-related deaths reported by Coroners in England, Wales, Northern Ireland, Guernsey, Jersey and the Isle of Man; Police forces in Scotland; & the Northern Ireland Statistics and Research Agency – Annual Report January-December 2008. London: ICDP, St George's University of London. September 2009.

2. Schifano F, Corkery J, Ghodse AH. Suspected and confirmed fatalities associated with mephedrone (4-methylmethcathinone, "meow meow") in the United Kingdom. *J Clin Psychopharmacol*. 2012;32:710-4.