New Drugs of Abuse
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AMC Toxicology

Opioids and opioid-like compounds
Synthetic cannabinoids
Synthetic cathinones
2C compounds
Tryptamines

Opioids
Fentanyl
Carfentanil

Carfentanil imported from China in Vancouver in June 2016.

Boston Globe OCTOBER 16, 2016
• Pinpoint pupils
• Decreased respiratory rate
• Depressed mental status
Don’t expose yourself  
Be liberal with narcan  

Loperamide
Opioid effects
Cardiac arrest
Krokodil

Flesh-eating “zombie drug”

Injected

Active ingredient = (10X stronger than morphine)
Potent as morphine
Fatalities only reported with coingestants.

- Sympathomimetics (modafinil, caffeine, propylhexedrine)
- Benzos (zopiclone)
- OTC cold meds (benadryl)
- Antidepressants (citalopram, venlafaxine, mirtazipine, lamotrigine)
- Muscle relaxers (soma)
- Opioids (fentanyl, morphine, O-desmethyltramadol)

FIGURE: Number of reported exposure calls to poison centers related to kratom use, by year — National Poison Data System, United States and Puerto Rico, January 2010–December 2015

Kratom withdrawal?

Dextromethorphan

DXM

Delsym, Robitussin, Coricidin, Nyquil
+/- tylenol, chlorpheniramine, benadryl
“Robo-tripping”
Clinical effects

<table>
<thead>
<tr>
<th>Condition</th>
<th>Effect</th>
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<tbody>
<tr>
<td>Hypertension</td>
<td>Tremor</td>
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<tr>
<td>Tachycardia</td>
<td>Sweating</td>
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<tr>
<td>Hallucinations</td>
<td>Mumbled speech</td>
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<tr>
<td>Nystagmus</td>
<td>“Robo walk”</td>
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<td></td>
<td>Rigidity</td>
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</tbody>
</table>

Clinical effects

- Severe
- Serotonin Syndrome
- Seizure
- Hyperthermia
- Respiratory depression
- Death
Treatment
Supportive
Narcan for respiratory depression

Synthetic Cannabinoids (K2)

K2
K9
Spice
Black Mamba
Zombie Killa
Herbal Incense
Fake Weed
Clinical Manifestations

Agitation
Seizure
Psychosis, anxiety
Tachycardia, tachydysrhythmia
Kidney failure

Clinical Manifestations

Atypical:
Slow heart rate
Somnolence/sleepiness
Zombie-like state
Synthetic Cathinones (Bath Salts)

A type of Amphetamine
Examples: Methcathinone, methylone, mephedrone, buytione, ethylone, methylenedioxypyrovalerone (MDPV), dimethylcathinone, etc.

Khat (natural cathinone)
Time to peak: 1.5 hours
Duration: ~ 6 hours

Flakka

alpha-pyrrolidinopentiophenone (α-PVP)
AKA gravel

2C Compounds

Synthetic hallucinogenic amphetamines

Examples: (AKA nexus, bromo, spectrum), (blue mystic), 2C-B-FLY
Snorted, IV, or rectal
Onset within 1 hour
Symptoms last 6-10 hours

Clinical effects
Hypertension
Tachycardia
Hallucinations
Finger necrosis
Sudden death

25I-NBOMe
4-iodo-2,5-dimethoxy-N-(2-methoxybenzyl)phene thylamine
“N-bomb”, Smiles, Wizard
Responsible for multiple deaths
Tryptamines

Hallucinogens
Related to psilocybin, DMT, bufotenine
Examples:
- 5-MeO-DiPT " " (N,N-diisopropyl-5-methoxytryptamine)
- "IT-290, Amtrak, Anthrax" (alpha-methyltryptamine)
Ingested*, smoked, snorted
Onset within 20-30 min
Symptoms last 3-6 hours (5-MeO-DiPT) or 12-16 hours (AMT)

Clinical effects
- Enlarged pupils
- Euphoria
- Hallucinations
- Nausea
- Diarrhea
- Jaw clenching

Salvia
Salvia divinorum
“Legal” hallucinogen
Inhaled: Onset 30 min, Duration 15-20 min
Ingested: Onset 1 hr, Duration 2 hours

Clinical effects
Vivid hallucinations
Synesthesia
Diuresis
Nausea
Dysphoria
Psychosis

Questions?