A Guide to the Adulterants, Bulking agents and other Contaminants found in illicit drugs.

Claire Cole, Lisa Jones, Jim McVeigh, Andrew Kicman, Qutub Syed & Mark A. Bellis
Terminology

• Adulterants
  – pharmacologically active ingredients (synergistic or antagonistic effects)

• Contaminants
  – by-products of the manufacturing process

• Diluents
  – inert substances added bulk (decreases the amount of active ingredient)
Perception & Myth

ILLICIT DRUG
Presentation Aim

• To provide an evidence-based overview of illicit drug adulteration

Method

• Systematic searching of peer reviewed publications, grey literature and internet sources
Reasons for the presence of adulterants

- To add bulk
- To enhance or mimic
- To facilitate administration
- As the result of poor/unsterile manufacture
Add Bulk

Usually....

- Relatively cheap
- Legal
- Readily available

Their purpose:

- To dilute
- Increase profit

Caffeine, Sugars, Paracetamol
Enhance or mimic

• Similar to an illicit drug, adulterants may:
  – Have pain relieving properties
    • E.g. procaine in cocaine
  – Have the same taste and/or look
    • E.g. paracetamol in heroin and MSM in methamphetamine
  – Cause the same effects/feelings in drug users
    • E.g. lidocaine in cocaine (similar anesthetic effects)
Facilitate administration

• There are a number of substances which make it easier to smoke drugs
  – Heroin - caffeine, procaine, quinine
  – Cocaine – caffeine

Public health consequences of drugs manufactured for a specific administration route becoming available to other users (i.e. injecting drug users)
Manufacture & Packaging

• Manufacture by-products/residues
  – E.g. lead from cooking pots (heroin/methamphetamine)

• Bacteria caused by unsterile or inferior storage/packaging/distribution
  – E.g. recent anthrax outbreak in UK amongst IV heroin users
Country specific adulteration

*MSM - Methylsulfonylmethane
**PMMA - paramethoxymethamphetamine
PMA - paramethoxyamphetamine
Recent/emerging adulterants

• Phenacetin in cocaine
• Lidocaine in cocaine
• Anthrax contaminated heroin
• Other MDMA analogues in/as Ecstasy
Public Health Response

Identification of illicit drug adulteration

Immediate response

Specific response

Dissemination of information
- (Potential) adulterant & (suspected) source
- Potential harm(s)
- Spread & how to avoid
- Guidance for identification & to avoid further contamination
- Alternative routes of drug administration
- Emergency response
- Treatment & support
- Dissemination of warning to other orgs
- Contact for further information

Treatment

Review & debrief
The Media

• Messages about drug adulteration are often disseminated through the media.

• The media often sensationalize these messages

• Media messages should be assessed for effectiveness
Drug dealers add cancer-causing chemical to cocaine to maximise profits

New warning over dirty cocaine
Harm Reduction Messages

• Early warning systems and improved surveillance
• Standardised reporting
• Evidence-based interventions
• Improved awareness and information availability for emergency & drug treatment personnel
Conclusions

• There are a variety of reasons why illicit drugs are adulterated
• Most adulteration substances are benign, enhancers, facilitators or by-products/bacteria
• Improved surveillance, early warning systems and information are required
• Interventions guide & communication strategies
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Contact

Claire Cole
Senior Researcher, Centre for Public Health
c.shaw@ljmu.ac.uk
0151 904 6003

Lisa Jones
Senior Researcher, Centre for Public Health
l.jones1@ljmu.ac.uk
0151 231 8737

www.cph.org.uk