

# Scottish Construction Safety Group

## Minutes of the meeting of April the 19<sup>th</sup> 2018

There were 24 members and guests present. Bob introduced Professor Nick Bateman from the University of Edinburgh who practiced as a medical toxicologist.

The UK National Poisons Information Service (UK- NPIS) gathers information on poisonings in the UK and provides information on antidotes through TOXBASE. The organisation has undergone a number of reviews over the years and provides a 24 hour on call service for hospitals etc. The database has approximately 600,000 accesses per annum, 50,000 of which are via telephone. Most poisonings are deliberate and are one of the commonest reasons for attendance at hospital. The most common drugs giving problems are Paracetamol (99584), Ibuprofen (27675), Sertraline (25524) and Diazepam ((23913) compared with the top queries on drugs of misuse being Cocaine (11662), MDMA (10421) Cannabis (5317) and Unknown drugs (4080). Contacts relating to codeine are increasing and those for heroin are falling with contacts for MDMA being generally static. Contacts relating to branded products such as bath slats and plant food are falling although it is amazing what people buy.

UK-NPIS breaks drugs in to various classifications

Drugs of misuse – controlled by the Home Office

Prescription only drugs – controlled by European law and licenced by the UK MHRA

Over the counter drugs sold in pharmacies and supermarkets etc.

Chemicals with actions e.g. legal ethanol although this is tightly controlled but not under drug abuse legislation

Herbs and mushrooms with actions on the brain

Internet sales allow the purchase of some products from outside the UK

There are three sub-categories of drugs of abuse, these are stimulants (uppers) such as amphetamines, cocaine and MDMA; depressants (downers) such as opiates, benzodiazepines and GHB and hallucinogens (mind benders) such as phenycyclidine (PCP) and LSD. These all work on different receptors by either stimulation or inhibition of the receptors. The drugs react and change in the body e.g. codeine changes to form morphine in the body dependent on blood concentration. The best medium for measuring for drugs is the blood. To work in the body drugs have to be fat soluble and it takes time for them to act as they are absorbed via the small bowel. They then go through a change process to form metabolites in the liver before excretion through the kidneys. The elimination rate depends on the chemical complexity of the drug with for example ethanol being a far simpler compound than THC. The complexity of the drug allows checks to be carried out for longer on some substances. Some graphs deteriorate in a linear fashion whilst others break down based on a doubling of time with it generally being accepted that after five half-lives the drug is gone. One unit of alcohol contains 10ml (8g) of ethanol and equates to 25ml of 40% whisky. The breakdown of ethanol is based on you and your size and can vary by a factor of four. For a man weighing 100kg the legal amount of alcohol (Scotland) equates to 30g or 37.5ml in the blood, for women and smaller men the amount is less. The blood alcohol rate is easiest to compare as the urine limit is a threshold based on water consumption.

Accident rates at different BAC levels

State	Normal	BAC = 0.03% =40mg/l	BAC+0.06% = 80mg/l	BAC =0.09%
Accident rate	1.51%	5.22%	6.96%	8.7%

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Alcohol can effect attention levels and different personality types can also change the effects. The effects of some drugs last for longer.

Drug screening can detect the drugs for longer for example in urine testing heroin can be detected for 2 days, cannabinoids single use 2 – 7 days; prolonged chronic use more than 1 month; methadone 3 days, methamphetamine up to 2 days. Drug testing of employees requires their consent and is normally a contract condition. Employers should limit the testing to those that need testing, carry out random testing and not single out individuals. Problems relating to testing include that it does not demonstrate loss of competence e.g. during the Second World War pilots were given amphetamines. Multiple agents may have been taken which are not screened for in particular prescription drugs and GHB cannot be detected. Most of the screening kits test for a set of chemicals which are indicated at above a certain level and all need back-up samples to confirm the result. Assessing competence of individuals requires a separate set of tools.

To contact Nick the email address is [drnickbateman@gmail.com](mailto:drnickbateman@gmail.com)

Bob thanked Nick for the presentation before moving on to other business.

Billy O'Hare of Caledonian University is carrying out an IOSH funded research project in to designers understanding of issues relating to CDM. He requires pictures or video clips of relevant subjects. The information can be anonymised. Any other information on designers issues would be useful.

More information can be found on the Group website  
<http://www.scottishconstructionsafetygroup.org.uk/> .

#### **Dates of forthcoming meetings are**

**24/5/18** HSE review of the year and general information