



Faculty of Occupational Medicine

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Alcohol and Drugs in the Workplace

Intoxicants and Health and Safety in the Workplace: Clinical, Forensic & Legal Considerations

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Considerations

- Intoxicants
 - Alcohol & drugs
 - Define
 - Medical & clinical effects
 - Legal considerations
 - Forensic assessment & analyses

Considerations

- Use and abuse of intoxicants
 - Prescribed
 - Non-prescribed
 - Misuse of Drugs Act & Regulations
 - Social misuse and abuse

Considerations

- Risks in the workplace
 - The person
 - The post / the duties
 - Critical positions
 - Medical Assessment
 - Response & managing

I: Intoxicants

Definition

Types

Intoxicants

- “intoxicant” includes alcohol and drugs and any combination of drugs or of drugs and alcohol
- substance which when taken into a body by one mean or another produces a condition of diminished mental and physical ability, hyperexcitability, or stupefaction.

Classes of Drugs

- Alcohol
- Cannabis
- Benzodiazepines
- Amphetamine / Metamphetamine
- Cocaine
- Methadone
- Opiates
- Antidepressants
- Antihistamines

II: Epidemiology

Studies of Incidence & Prevalence

Incidence

- Generally
- DUI
- Fatalities
- Accidents/deaths at work
- EMCDDA
- HRB
- NACD etc

Drug Use Prevalence

- **European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA)** figures from recent Annual Reports
 - International comparisons
 - Age groups
 - Drug types

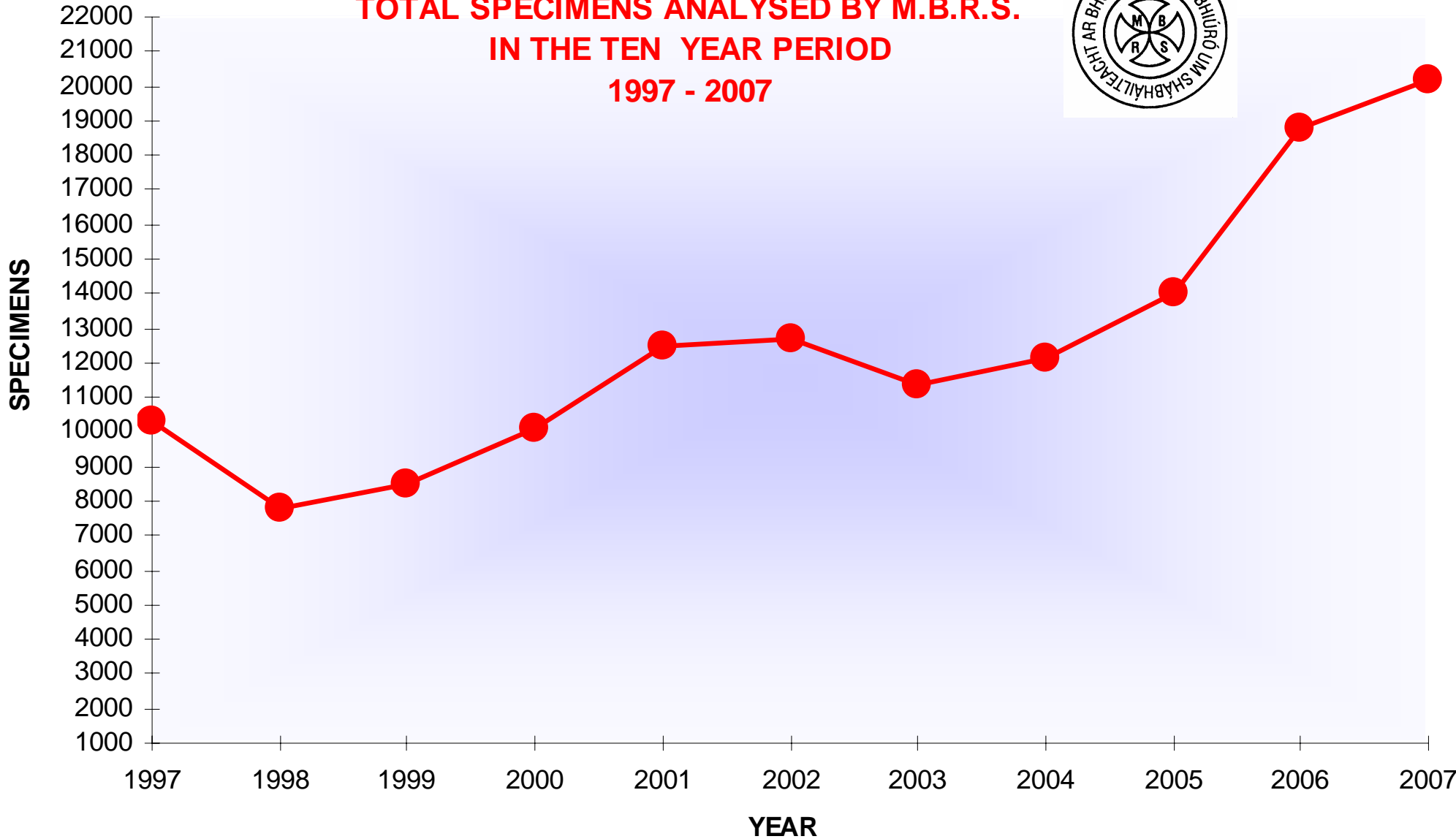
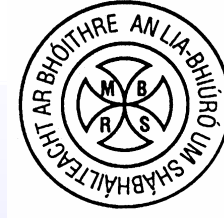
Drug Use Prevalence

- **Health Research Board** surveys and reports
 - Demographics
 - Fatalities
 - Drug type
- **National Advisory Committee on Drugs and Drug and Alcohol Information and Research Unit**
 - e.g. Bulletin 6, March 2009

Road Traffic Data

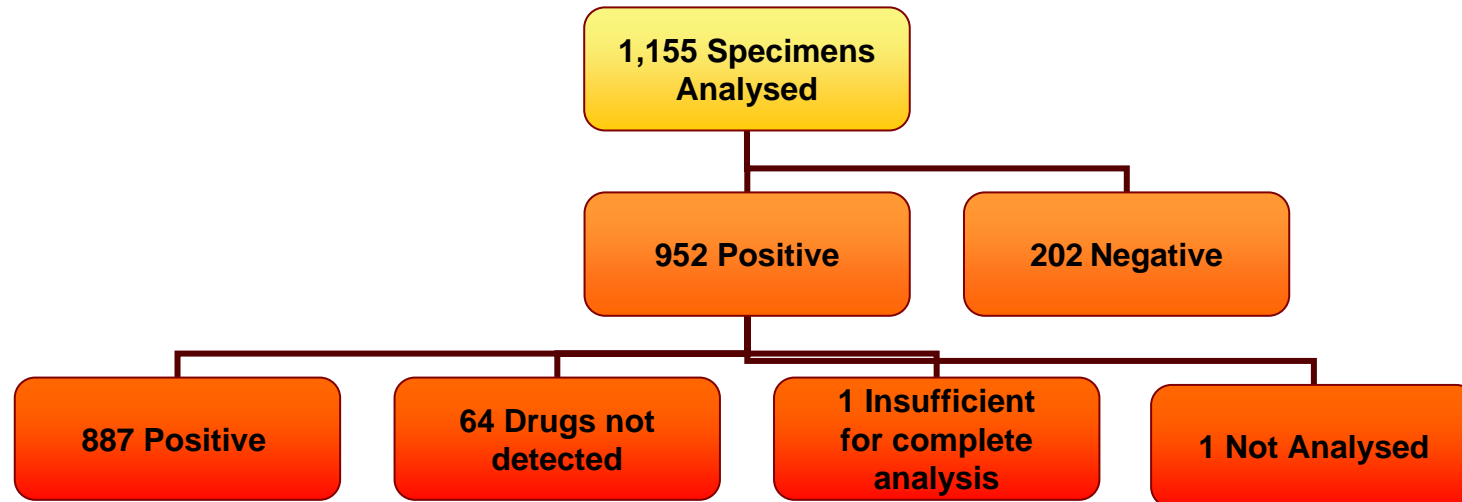
- **Medical Bureau of Road Safety / UCD Public Health Medicine:** Driving under the influence of drugs in Ireland: Results of a nationwide survey 2000-2001
- Fitzpatrick P, Daly, L, Leavy, CP and Cusack, DA. *Drinking, drugs and driving in Ireland: more evidence for action.* Injury Prevention (2006) Dec; 12(6): 404-8.

Chart 1
TOTAL SPECIMENS ANALYSED BY M.B.R.S.
IN THE TEN YEAR PERIOD
1997 - 2007



<i>Drug or Drug Class</i>	<i>Under Limit for Alcohol %</i>	<i>Over Limit for Alcohol %</i>	<i>All Drivers Tested %</i>
Any Drug	33.1%	14.2%	15.7%
Cannabinoids	20.9%	8.5%	9.5%
Amphetamines	8.4%	1.5%	2.1%
m-Amphets	9.0%	2.0%	2.6%
Opiates	6.9%	0.8%	1.3%
Cocaine	2.5%	0.9%	1.0%
Methadone	6.8%	0.6%	1.1%
Benzodiazepine	9.0%	3.4%	3.9%

Drug Driving Specimen Analyses 2007



III: Clinical

Common Effects of Intoxicants

Clinical Assessment

Assessing

- Clinical
 - Assessment / polypharmacy
- Legal
 - Road Traffic Acts / Controlled drugs / Safety at Work legislation
- Forensic
 - Analytical procedures

Clinical Assessment

- Acute signs and symptoms
- Chronic signs and symptoms
- Psychological effects
- Psychomotor effects
- Physical effects

Clinical Effects - Cannabis

- Euphoria
- Anxiety
- Increased appetite
- Dry mouth
- Time-space distortions
- Dysphoria
- Short-term memory loss
- Hallucinations (high doses)
- Long term effects from chronic use

Amphetamines

- Tachycardia
- Palpitations
- Hypertension
- Euphoria
- Increased energy
- Restlessness
- Delusions
- Paranoia

Benzodiazepines

- Dizziness
- Sedation
- Loss of co-ordination
- Impaired skilled task performance

Cocaine

- Tachycardia
- Sweating
- Euphoria
- Increased mental well-being
- Irritability
- Followed by depression

Opiates

- Euphoria
- Pain relief
- Concentration and memory difficulties
- Pinpoint pupils

IV: Forensic Laboratory

Testing for Intoxicants

Specimens

- Provision
 - Consent
 - Agreed procedures
 - Doctor/nurse (potential conflict in roles)
- Type of sample
 - Oral fluid
 - Urine
 - Blood

Laboratory Procedures

- Screening for the presence of drugs by immunoassay
 - Cut-off points below which a sample is deemed to be negative
- Confirmatory test for concentration of drugs by GC-MS or LC-MS
 - Cut-off is more commonly called limit of detection

Levels for Drugs

- Proscribed concentration (E.g. alcohol)
- Presence plus evidence of impairment
- Zero tolerance
- Mixed criteria
- Laboratory accreditation

Cannabis (Analytical)

- THC
- Carboxy-THC
- 11-OH-THC

CNS Stimulants (Analytical)

- Metamphetamine
- Amphetamine
- MDMA
- MDA
- Cocaine
- Benzoyllecgonine
- Cocaethylene

CNS Depressants (Analytical)

- Benzodiazepines
 - Alprazolam
 - Chlordiazepoxide
 - Clonazepam
 - Diazepam
 - Nordiazepam
 - Temazepam
 - Lorazepam

CNS Depressants (Analytical)

- Amitriptyline
- Nortriptyline
- Diphenhydramine
- Meprobamate
- Phenobarbital
- Phenytoin
- Gamma-hydroxybutyrate

Narcotic Analgesics (Analytical)

- Codeine
- 6-acetylmorphine
- Methadone
- Morphine
- Oxycodone
- Propoxyphene
- Tramadol

European Guidelines

- **European Laboratory Guidelines for Legally Defensible Workplace Drug Testing (2002)**
 - Specimen collection
 - Laboratory organisation
 - Analysis procedures
 - QA / QC
 - Challenges to testing
 - Interpretation of results
 - Appendices

V: Legislative

Misuse of Drugs Act

Workplace Related Legislation

Other Legislation

Legal Considerations

- Prescribed
- Prescribable
- Scheduled under Misuse of Drugs legislation
- Consent and collective agreements
 - Wretlund v Sweden (decision of the European Court of Human Rights, 9 March 2004, applic. 46210/99)
- Confidentiality

Drug Testing in the Workplace

- Co-operative / adversarial
- Health / ill-health
- Role of the Occupational physician / nurse
- Consent / confidentiality
- Voluntary, contract, collective agreement
- Consequences of agreeing / refusing
- Sample integrity
- Rehabilitative / punitive

Misuse of Drugs Acts 1977 & 1984

- An Act to prevent the misuse of certain dangerous or otherwise harmful drugs
- Controlled drugs
- Restrictions on production, cultivation, supply & possession and requirements for prescription etc.
- Orders laying out 5 Schedules

Schedules

- Schedule 1: drugs not having any legitimate medical use, e.g. LSD, cannabis
- Schedule 2: mainly the narcotics and amphetamines
- Schedule 3: Barbiturates and some minor amphetamines and some benzodiazepines
- Schedule 4: Most benzodiazepines and lower dose phenobarbitone preparations
- Schedule 5: Drugs containing only a small amount of a controlled drug, e.g. codeine in cough mixtures

Work-Related Legislation

- Safety, Health and Welfare at Work Act 2005
 - Section 13:

An employee shall, while at work—

(b) ensure that he or she is not under the influence of an intoxicant to the extent that he or she is in such a state as to endanger his or her own safety, health or welfare at work or that of any other person,

(c) if reasonably required by his or her employer, submit to any appropriate, reasonable and proportionate tests for intoxicants by, or under the supervision of, a registered medical practitioner who is a competent person, as may be prescribed

Screening of Occupational Drivers

- Cashman, CM et al. (2009). *Alcohol and Drug Screening of Occupational Drivers for Preventing Injury (Review)*. Cochrane Collaboration, The Cochrane Library 2009, Issue 2.
 - “There is insufficient evidence to advise for or against the use of drug and alcohol testing of occupational drivers for preventing injuries as a sole, effective, long-term solution in the context of workplace culture, peer interaction and other local factors.”

Road Traffic Acts 1968-2006

- RTA 1994/2006 and RT Bill 2009
- Driving whilst under the influence of an intoxicant
- Driving during the course of employment
- Coroner's data in work-related road traffic fatalities in Ireland
 - Drummond, A and Cusack DA (2008). Using Coroners' Narrative Data to Identify Work-Related Road Traffic Fatalities in Ireland. *Prevention of Occupational Accidents in a Changing Work Environment. 4th International Conference of the Working on Safety Group.* 30 Sept. – 3 October 2008. Crete, Greece.

Railway Safety Act 2005

- Chapter 2 – Intoxicants
- Section 97(1):
 - A safety critical worker who performs a safety critical task, or who makes himself or herself available to perform such a task by attending at work, while being unfit, is guilty of an offence.
 - In this section and in *section 87*, “unfit” means, in relation to a safety critical worker, being under the influence of an intoxicant to such an extent that his or her ability to perform a safety critical task, without exposing a person (including himself or herself) to danger or risk of danger, is for the time being impaired.

Irish Aviation Authority Order 1999

- Psychoactive substances means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens and volatile solvents, whereas coffee and tobacco are excluded
- Article 45(1): rendered incapable by the effects of psychoactive substances
- Joint Aviation Regulations e.g. blood alcohol level of 20mg%

VI: Management

Healthcare

Workplace safety

Criminality

Medical Management

- Healthcare
 - Assessment & diagnosis
 - Fitness for work
 - Generally
 - Specific duties
 - Treatment
 - Rehabilitation and support

Managing

- Legal
 - SHWWA 2005
 - Airline pilots
 - Railways
 - Finland: Act of Protection of Privacy in Working Life (759/2004) – Chapter 3.
- Healthcare
- Safety
- Punitive

Management

Employers' and Management
Response

Role of Occupational Physician

Conclusions & Comments

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www.kildare.ie/countycouncil/countycoroner
www.ucd.ie/legalmed

