

LORMAN EDUCATIONAL SERVICES

- PRACTICAL AND LEGAL
ISSUES OF EMPLOYEE
WELLNESS PROGRAMS
IN ILLINOIS
- ROCKFORD, IL
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Morning program

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TOPICS FOR THE MORNING

- CURRENT TRENDS IN EMPLOYEE DRUG ABUSE AND DRUG TESTING
 - SUBSTANCES USED AND PREVALENCE
 - HEALTH SOCIAL AND LEGAL COMPLICATIONS ASSOCIATED WITH SA
 - CIRCUMSTANCES OF DRUG TESTING: IMPLICATIONS FOR EMPLOYEE AND EMPLOYER
 - PRE-EMPLOYMENT INCIDENT RANDOM

TOPICS FOR THE MORNING

TYPES AND RELIABILITY OF DRUG TESTING

- SCREENING
- CONFIRMATION
- FALSE POSITIVES

RAMIFICATIONS FOR EMPLOYEE AND EMPLOYER

World Health Organization (WHO)

1981 WHO definition of a drug:

“...any chemical entity or mixture of entities, other than those required for the maintenance of normal health, the administration of which alters biological function and possible structure.”

Reasons for substance misuse assessment

- the need to focus and conduct efficient assessment of particular occupational groups or industries; and
- the need to conduct research on the relationships between worker drug use and a variety of related measures, including productivity and performance, health care claims, workers' compensation claims, etc., that are available only in the workplace.

National Institute on Drug Abuse (NIDA)

NIDA 2004 Monitoring the Future Survey

- Survey of 12th Grader non prescription drug use:
 - 9.3% reported using Vicodin in the past year
 - 5.0% reported using OxyContin

Non Prescription Drug Use

- U.S. Population 12 years and older
 - Use of prescription drugs for non medical reasons in their lifetime:
 - 20% of population reported positively
 - Approximately 48 million people

Department of Justice (DOJ)

2003 National Survey on Drug Use and Health:

- 6.3 million Americans aged 12 and older have used Rx drugs for non medical purposes in prior 30 days
- 4.7 millions used pain relievers
- 1.8 million used tranquilizers
- 1.2 million used stimulants
- 0.3 million used sedatives

PHARMACOLOGY 101

- IT'S A 500 COURSE!
- OPIATES
- BENZODIAZEPINES
- AMPHETAMINE METHAMPHETAMINE
- COCAINE
- SLEEPING PILLS

Drug Abuse Warning Network (DAWN)

DAWN monitors drug mentions from EDs across the U.S.

- Two most frequently mentioned Rx drugs in 2002:
 - Benzodiazepines
 - 100,784 ED visits in 2002
 - Opioid pain relievers
 - 119,000 ED visits in 2002
 - Hydrocodone ODs up by 170% from 1994 to 2002
 - Oxycodone ODs up by 450% from 1994 to 2002

Over-the-Counter (OTC) Medicines

- OTC drugs which are abused for psychotropic effects:
 - Sleep aides such as doxylamine (Unisom)
 - Antihistamines: Diphenhydramine (Benadryl), Gravol or Dramamine
 - Cough Suppressants with dextromethorphan (DMX)

National Household Survey on Drug Abuse (NHSDA)

Survey of illegal drug users of age 18-49:

- 70% of illegal drugs users were employed
- Overall, 17% of employed adults were current users of illicit drugs

NHSDA Survey Results

Full time workers reporting current illicit drug use:

- More likely to have three or more employers in past year than non drug users
- More likely to have voluntarily left work or been fired in the past year
- More likely to have taken unexcused absences from work

Employee Assistance Programs (EAP)

2000 survey of American companies

- 60% of all worksites provided EAP
- 62 million American workers were enrolled in EAP
 - EAP increased by 6.8% from 1999
 - EAP increased by 130% from 1994
- In 2000, 95% of U.S. companies with over 5000 employees had EAP

Why Test for Drugs?

Public relations and corporate image.

Working relationships.

Legal liability.

Concern over "substance abuse" within society as a whole, leading to a desire to at least bring about a "drug-free" workplace.

WHY TEST FOR DRUGS?

Financial and data security.

Company performance and quality of service or product.

Increased costs (e.g., insurance premiums).

Turnover of staff.

WHY TEST FOR DRUGS

Sickness, other absenteeism,
and the physical safety and
security of staff and company
property.

WHY TEST FOR DRUGS?

- The laws of most developed nations impose upon employers a duty of reasonable care to protect the safety and health of their employees in the workplace. The employer also has a duty to remove an employee who by his or her own conduct is likely to prove a source of danger to fellow employees.

What Kind of Employee Uses Drugs at Work?

- 300% more likely to require sickness leave/benefit.
- 360% more likely to injure themselves or another in a workplace accident.
- 500% more likely to be involved in an accident off the job that in turn affects attendance or performance at the workplace.

WHAT KIND OF EMPLOYEES USE DRUGS AT WORK?

- 500% more likely to file grievance and compensation claims.
- 1000% more likely to be absent from work.

Drug Testing

Recent Use Detection by bio-sample:

- **Urine:** Most commonly used but requires careful precautions to prevent cheating
- **Saliva**
- **Sweat**
- **Blood:** More expensive, invasive and carries risk of infection. Rarely used
- **Hair:** Most expensive but more secure to challenge

Screening Tests

- Initial immunoassay tests using antibody technology
- Presumptive in nature
- High “false positive” rate particularly for:
 - Amphetamines
 - Opiates

Initial Test/Immunoassay Testing

- Non-regulated programs may allow thin-layer chromatography to screen
- HHS and DOT guidelines mandate immunoassay be employed
- Immunoassay eliminates specimen that are negative
- Immunoassay does not provide certainty because of considerable cross reactivity with drugs other than the target drug

Positive Specimen on Screening

- Confirmation test is required using a technique different than for screening
- Non-regulated testing can use a variety of methods some less than ideal
- Regulated testing require confirmation by Gas Chromatography/ Mass Spectrometry (GC/MS)

GC/MS

- GC separates components of the positive screening sample. Interaction with chemicals in the column provides different times of transit. As each chemical exits the column it enters the MS
- The MS bombards the chemical with electrons. The size and quantity of the pieces form a unique fingerprint of the drug

Screening Test Thresholds

- Cut off levels for reporting a positive test result must follow standards which are sufficient to rebut any defense of passive inhalation
- Confirmatory cut off level may be higher than the screen cut off

Periods of Detection

Urine, Saliva, Sweat or Blood:

- Most drugs can be detected in the range of 12 hours to 4 days
- Cannabis remains in regular users for up to one month
- Hair testing manufacturers claim that all drugs can be detected in hair samples for about 90 days

When Are Drug Tests Carried Out?

- A significant number of companies rely on pre-employment testing
- Monthly random testing of 10% of employees on an unannounced basis
- Testing “For Cause”:
 - After an accident
 - After specific grounds for suspicion
- Testing safety critical employees such as drivers or pilots

When Are Drug Tests Carried Out?

- 1997 U.S. Survey:
 - 39% of companies used pre-hiring screening
 - 30% used criterion of “reasonable suspicion”
 - 29% focused on “For Cause” testing after an accident
 - 25% opted for purely random, unannounced testing of employees

Measuring Impairment

- No drug testing is designed to reveal impairment
- Drug Testing measures:
 - Metabolites which remain in the system and indicate past drug usage
 - A person may have recently ingested cocaine and not yet have formed metabolites which appear in the test—A false negative test
 - Marijuana use a week prior to testing may show up at testing despite no evidence of impairment

Why Should Business Test its Employees?

- Internal Protection of:
 - Shareholders
 - Insurers
 - Customers
 - Company staff
- External Protection from:
 - Adverse legislation
 - Negative public response

Beating the Testing System

- Urine substitution kits
- Special shampoos
- Private self-test kits
- Saliva, blood, and urine cleansers
- Diuretics, laxatives, adulteration, and substitution

Does Testing Work?

Testing Is Effective.

- When testing is initiated the percentage of positive test results is initially high but decreases annually until a very low rate persists.
- The employee population adjusts to the testing requirement by avoiding or reducing drug use to avoid detection

Non-Regulated Testing

- Urine is the usual bio-sample tested
- Marijuana and cocaine are tested as a minimum
- Opiates, amphetamines and phencyclidine may be added
- In un-regulated testing the employer and testing lab have discretion as to what drugs are tested and what methods are used. They may use any kind of sample including sweat, saliva, and hair

Federal Law and Executive Order 12564 (1986)

- Condition of federal employment:
 - On and off duty abstinence from illegal drugs
 - Federal grantees and contractors must comply with the Drug-Free Workplace Act of 1998
 - Testing labs must be certified by the NLCP under HHS

Transportation Industry

- DOT employers must comply with the Omnibus Transportation Employee Testing Act of 1991
 - DOT established testing for alcohol and drugs for safety-sensitive employees
 - NRC has standards for nuclear-power producers
 - DOD contractors must have a drug free program for employees in sensitive jobs

Urinalysis

Drug Group	Specific Analyte	Screening Cutoff	Confirmation Cutoff
• Cannabinoids	Delta-9-tetrahydrocannabinol 9-carboxylic acid (carboxy-THC)	50 ng/ml	15 ng/ml
• Cocaine metabolite	Benzoylecgonine	300 ng/ml	150 ng/ml
• Opiates	Morphine/Codeine	300 ng/ml	300 ng/ml
• PCP	PCP	25 ng/ml	25 ng/ml
• Amphetamine/ methamphetamine	Amphetamine/methamphetamine	1000 ng/ml	500 ng/ml
• Benzodiazepines	Diazepam, nordiazepam, fluorazepam, N-desalkylfluorazepam, chlordiazepoxide	300 ng/ml	200 ng/ml
• Barbiturates	Amobarbital, butalbital, pentobarbital, phenobarbital, secobarbital	300 ng/ml	200 ng/ml

Hair Analysis

RIAH Cutoffs^a

Drug Group ^{Sp}	Specific Analyte	Cutoff Levels ^b
Cannabinoids hair	Total THC	1 ng/10 mg
Cocaine metabolite	Benzoyllecgonine	5 ng/10 mg hair
Opiates	Morphine/Codeine	5 ng/10 mg hair
PCP	PCP	3 ng/10 mg hair
Methamphetamine	Methamphetamine	5 ng/10 mg hair

- a From Psychomedics
- b Hair cutoff levels cannot be compared to urinalysis cutoff concentrations.

Drug, Metabolite: Test Result

From Chapter 44, Drug Testing in the Workplace in Drug Injury II

Table 1

Drug or Metabolite:	Initial Test (ng/mL):	Confirmation Tests (ng/mL):
Marijuana Metabolites Delta-9-tetrahydrocannabinol-9-carboxylic acid	50	15
Cocaine Metabolites Benzoylecgonine	300	150
Phencyclidine	25	25
Amphetamines: <ul style="list-style-type: none"> • Amphetamine • Methamphetamine 	1000	500 500 (with amphetamine present at a concentration ≥ 200 ng/mL)
Opiate metabolites: <ul style="list-style-type: none"> • Codeine • Morphine • 6acetylmorphine 	2000	2000 2000 10 (only tested if morphine ≥ 2000 ng/mL)

Drug, Metabolite: Test Result

From Chapter 44, Drug Testing in the Workplace in Drug Injury II

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Table 2

Product:	Drug Present:
Marinol®	Cannabinoids
Astramorph PF® Duramorph® MSIR® MS Contin Tablets® Roxanol® Amogel PG® Diabismul® Donnagel-PG® Infantol Pink® Kaodene with Paregoric® ParegoricQuiagel PG®	Morphine
Actifed with Codeine Cough Syrup® Codimal PH® SyrupDimetane-DC Cough Syrup® Phenaphen with Codeine® Robitussin A-C® Triaminic Expectorant with Codeine® Tylenol with Codeine(#1, 2, 3, or 4)® Kaodene with Codeine®	Codeine
Desoxyn® (Gradumet®)	d-methamphetamine
Adderall® Benzedrine® Biphetamine® Dexedrine® Durophet® Obetrol®	d-amphetamine or racemic d,l-amphetamine
Vicks Inhaler®	l-methamphetamine

Drug, Metabolite: Test Result

From Chapter 44, Drug Testing in the Workplace in Drug Injury II

Table

Table 3

Product:	Metabolizes to:
Amphetaminil Clobenzorex (Dinintel®, Finedal®) Ethylamphetamine Fenethylamine (Captagon®) Fenproporex (Tegisec®) Mefenorex (Pondinil®) Mesocarb Prenylamine	Amphetamine
Benzphetamine (Didrex®) Dimethylamphetamine Famprofazone Fencamine Furfenorex Selegiline (Deprenyl, Eldepryl®)	Methamphetamine (and amphetamine)

Collector Requirements

Knowledgeable about the current "DOT Urine Specimen Collection Procedures Guidelines" published by the DOT

Qualification training in the proper collection procedures, completion of the CCF, procedures in solving problem collections (e.g. "shy bladder"), correction of correctable flaws and identification of fatal flaws (for example, the specimen ID on the donor's bottle does not match the CCF or the seal is broken) during collection.

Demonstration of collection proficiency by completing five consecutive error-free mock collections by a qualified collector

Attendance of a refresher training at least every five years

Attendance of a refresher course within thirty days if an error in a collection results in the cancellation of a test (fatal or uncorrected flaws)

Maintenance of documentation showing compliance with the requirements in §40.33 of Part 40

DOT Ten Steps for Collection

- 1. Pay careful attention to employees throughout the collection process.
- 2. Ensure that there is no unauthorized access into the collection areas and that undetected access (e.g., through a door not in view) is not possible.
- 3. Make sure that employees show proper picture ID.
- 4. Make sure employees empty pockets; remove outer garments (e.g., coveralls, jacket, coat, hat); leave briefcases, purses, and bags behind; and wash their hands.
- 5. Maintain personal control of the specimen and CCF at all times during the collection.

DOT Ten Steps for Collection

6. Secure any water sources or otherwise make them unavailable to employees (e.g., turn off water inlet, tape handles to prevent opening faucets, secure tank lids).
7. Ensure that the water in the toilet and tank (if applicable) has bluing (coloring) agent in it. Tape or otherwise secure shut any movable toilet tank top, or put bluing in the tank.
8. Ensure that no soap, disinfectants, cleaning agents, or other possible adulterants are present.
9. Inspect the site to ensure that no foreign or unauthorized substances are present.
10. Secure areas and items (e.g., ledges, trash receptacles, paper towel holders, under-sink areas, ceiling tiles) that appear suitable for concealing contaminants.

SAMPLE COLLECTION FOR DRUG TESTING

- QUEST LAB COLLECTION CENTERS
- INDUSTRIAL MEDICINE CLINICS
- AVOIDS COLLECTION CHALLENGES,
CHAIN OF CUSTODY, FACILITIES
MANAGEMENT

Duties of the Medical Review Officer (MRO)

- DOT and Federal Mandatory Guidelines require positive results be reviewed by an MRO
- MRO contacts the employee and offers to discuss the positive finding
- If the MRO cannot contact the employee after 3 attempts the Designated Employer Representative (DER) contacts the employee

Duties of the Medical Review Officer (MRO)

- In the event of failure to interview the employee after ten days a positive result can be verified without an interview
- After receiving direction from the DER or if the employee refuses to speak with the MRO after 72 hours, an interview is no longer required for confirmation

Duties of the Medical Review Officer (MRO)

- Without a legitimate medical explanation, The MRO confirms positive tests for:
 - PCP
 - Cocaine
 - Amphetamine
 - Marijuana
- Even with a legitimate explanation the MRO may still raise fitness-for-duty issues

CASE 1

- THE POPPY SEED DEFENSE
- OPIATES FROM POPPY
- MORPHINE ALKALOID PRESENT
- REASON FOR 2000NG/ML SCREEN LEVEL
- 300NG IN UNREGULATED TESTING
- RECKLESS HOMICIDE CASE

CASE 2

- PASSIVE INHALATION
- REGULATED GROUP HOME
- TESTING LAB REPORTED SUB-THRESHOLD LEVEL POSITIVE (8 V. 15)
- SUSPENSION OF REVOCATION
- TOLD NOT TO BE AROUND DRUG USERS OR DEALERS

CASE 3

- 'POSITIVE' AMPHETAMINE
- METHAMPHETAMINE PROBATION
- VIOLATION OF PROBATION
- FACED RETURN TO PENITENTIARY
- PRESCRIBED SYMPATHOMIMETIC 'EQUATE' FOR COLD SYMPTOMS
- TLC CONFIRMATION; CAN'T DISCRIMINATE B/W METH AND EQUATE

CASE 5

- FATAL MOTOR VEHICLE CRASH
- TRUCK DRIVER POSITIVE BLOOD COCAINE
- CLAIMED USE 48 HOURS PRIOR
- IMPAIRMENT VS NO IMPAIRMENT
- PUNITIVE \$\$\$\$ V NO PUNITIVE
- HALF LIFE OF DRUG PROVES DRIVER NOT TRUTHFUL ABOUT TIME OF USE

CASE 6

- CONSTRUCTION WORKER UNDER LOAD OF STEEL
- STEEL FALLS ON WORKER
URINE SCREEN POSITIVE FOR COCAINE METABOLITES
WORKER CLAIMED USE 8 DAYS PRIOR,
SINGLE USE ONLY
WORKER NOT TRUTHFUL, COCAINE
DISCUSSED IN COURT

CASE 7

- TREE TRIMMER TRUCK HEAD ON COLLISION WITH SCHOOL BUS
- WORKERS AFRAID TO RIDE WITH CRASH DRIVER
- SUPERVISORS KNEW OF DRUG USE, SUBSTITUTED URINE (pregnant man)
- PUNITIVE CLAIM AGAINST COMPANY
- FAILURE TO ENFORCE DRUG FREE POLICY / VIOLATE DOT/ ENDANGER PUBLIC

CASE 8

- ADOPTIVE PARENTS DRUG TESTED
- FATHER TESTS POSITIVE FOR THC
- REQUIRED TO TAKE DRUG CLASSES
- RE-TESTED 30 DAYS LATER, POSITIVE AGAIN (16NG/ML)
- ADOPTION THREATENED
- CONTACTED AUTHOR, SCIENCE EXPLAINED, MOM, DAD AND BABY

BIGGEST PROBLEM DRUGS

- ALCOHOL
- TOBACCO

QUESTIONS

- REFERENCE CHAPTERS FROM DRUG INJURY BOOK FOUND IN YOUR SYLLABUS