



### DRUGS AND ALCOHOL – MANAGING ABUSE AND ADDICITON IN THE WORKPLACE

Part 1 – Education and awareness

## Introduction



Dr Mark Piper RTS Toxicology Services Manager

"What would you do if you suspected one of your employees was struggling with alcohol or drug dependence?"



### <u>Overview</u>

- The legal and risk assessment frameworks
- Policy construction
- Employee / Union involvement
- Management awareness and symptom recognition training
- Service provider selection
- Process implementation and roll out
- The testing procedure (chain of custody etc)
- Managing shiftwork, home working and working away from home
- GDPR considerations
- Dealing with results (both positive and negative)
- Employee assistance programmes.



#### **Effects of Heroin**

Heroin is a highly addictive, illegal Class A drug processed from morphine, a naturally occurring opiate extracted from the seedpod of certain varieties of poppy plants. Heroin is usually injected into a vein, but it's also smoked; added to cigarettes and cannabis. The effects are usually felt straight away. The effects take around 10 to 15 minutes if snorted.

This poster outlines the different effects heroin can have on the body. It must be noted that the effects will vary depending on the person and amount taken. In cases of overdose and even first use heroin can cause fatalities.

Short-term Effects	Long-term Effects		
Drowsiness	Depression		
Sedation	Muscular weakness		
Lethargy	Partial paralysis		
Nausea & Vomiting	Weakening of the immune		
Dry mouth	system		
Confusion	Memory loss		
Constricted pupils	Sleeping problems		
Slowed heart rate	Damaged teeth		
Slowed respiration	Gum swelling Gastrointestinal problems		
Low body temperature			
Light sensitivity	Poor appetite & Malnutrition		
Intense itching	Lack of oxygen to the brain		
	Risk of miscarriage		
	Collapsed veins		







### LEGAL REQUIREMENTS

#### **RISK ASSESSMENTS**





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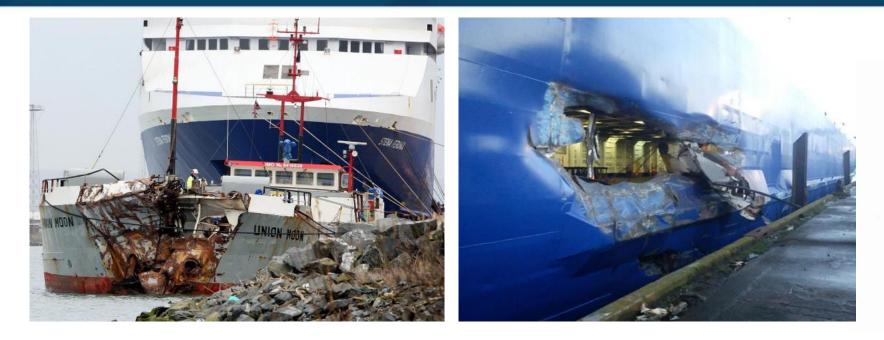
October 2021: Train driver arrested after testing positive for cocaine following a commuter train collision with buffers at a north London station.



Transport Act 2000









Merchant Shipping Act 1995

## **Belfast Telegraph**

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March 2012: Polish cargo boat captain sentenced to 12 months imprisonment for causing £1m damage to Stena ferry in Belfast Lough whilst 3 x over the alcohol limit.





March 2015: Copilot of Germanwings flight 9525 deliberately flew aircraft into French Alps killing all 150 people on-board.

Post-mortem toxicology: Anti-depressants and sleeping aid medications.

New EASA regulations now in place.







# Managing drug and alcohol misuse at work

## 7. The law

You have a general duty under the Health and Safety at Work etc Act to ensure, so far as reasonably practicable, the health, safety and welfare of your employees. Employees must also take reasonable care of themselves and anyone who could be affected by their work.

Just because there is no formal regulation in your business sector, employers <u>AND</u> employees still must ensure duty of care

RISK ASSESSMENT MATRIX					
SEVERITY	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)	
Frequent (A)	Ŧ	High	Serious	Medium	
Probable (B)	High	tugh	Serious	Medium	
Occasional (C)	High	Serious	Medium	Low	
Remote (D)	Serious	Medium	Me	Low	
Improbable (E)	Medium	Medium	Medium	Low	
Eliminated (F)	Eliminated				

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SERVICES

Drug & Alcohol Policy





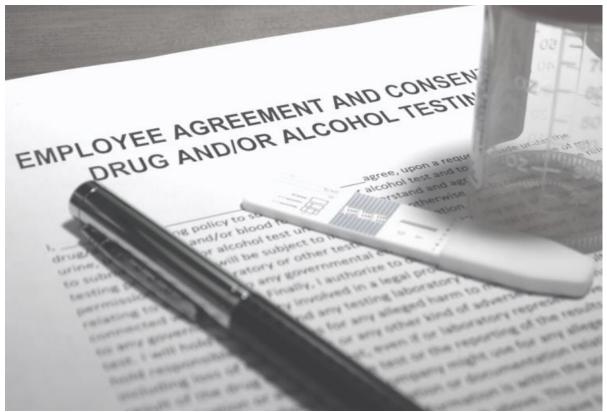
### DRUG AND ALCOHOL POLICY

### MANAGEMENT AWARENESS

## Drug and Alcohol Policy

A Drug and Alcohol Policy must be explicit enough to include: -

- $\circ~$  Who, where and when are being covered by the Policy.
- Reasons to test.
- $\circ~$  How the testing procedure will be conducted.
- Who will conduct the testing.
- What Guidelines (EWDTS / Network Rail / EASA) will be governing the testing.
- Outcome of results (provisional and final).
- Results challenge process.
- Sanctions after a positive result.
- GDPR considerations.



## Management Awareness

A Management Awareness course ensures the understanding and implementation of a Drug and Alcohol Policy: -

- Drug categories and classifications.
- Signs and symptoms of substance misuse.
- Medications.
- $\circ~$  CBD products and poppy seed defences.
- Current legislation and guidelines.
- AIM: To ensure the Drug and Alcohol Policy is applied consistently across the Company.







### EMPLOYEE / UNION BUY-IN

### PROCESS IMPLEMENTATION / ROLL OUT

## Employee / Union buy-in

One of the biggest hurdles is getting agreement from employees and unions: -

- Engage with the Unions at the earliest opportunity. 0
- Transparency. Ο
  - Who will be included under the Policy.
  - When and why will it be implemented. 0
  - Actions for positive results. Ο

#### Education $\cap$

- Employee awareness briefings.
- Leaflets / notices.  $\cap$
- Amnesty period. Ο
- Employee assistance programmes. Ο

#### EFFECTS OF DRUGS ON DRIVING



#### CANNABIS

drivers under the influence almost twice as likely to cause a road accident.

#### EFFECTS ON DRIVING

Low attention span, Blurred vision, Slow reaction times, Poor speed control, Inability to



#### AMPHETAMINES

The use of amphetamines can interfere with concentration, impair vision, and increase the

#### EFFECTS ON DRIVING



#### COCAINE

Cocaine can make the user feel more alert, however accident levels prove they aren't. Speeding and aggressive driving are both typical of drivers under the influence of cocaine.

#### EFFECTS ON DRIVING

Impair judgement, Interfere with ability to concentrate, Poor vehicle control, Aggressive



#### TRANOUILISERS



OPIATES



A driver may have difficulty keeping the vehicle in the correct lane and may make errors in judgmen

EFFECTS ON DRIVING



## Process Implementation / Roll Out

Roll out by example: -

- Conduct a trial collection under controlled conditions to iron out issues.
- Consider all aspects of process.
  - Service provider contact details.
  - Site facilities.
  - Points of contact training.
  - Contingencies for absences / no-shows.
  - Handling presumptive positive donors.
  - Feedback to participants.
- $\circ~$  Define random testing programme
  - 20% of high risk workers per annum (?)
  - $\circ~$  10% of low risk workers per annum (?)
- $\circ~$  Refresher training schedule / skill fade.
- Monitoring of collection kits / expiries.







### **PROVIDER SELECTION**

### THE TESTING PROCEDURE

## Service provider - requirements

Choose a service provider which meets your requirements

- Urine drug testing
- Oral drug fluid testing
- Hair drug testing
- On-site (point of collection) testing v laboratory testing
- Exhaled breath alcohol testing
- Blood alcohol marker testing
- Hair alcohol marker testing









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- Blood alcohol marker testing
- Hair alcohol marker testing

- Drug and alcohol policy provider
- Training facilities
- Collection service only business hours or 24/7/365
- Screening and confirmatory analysis
- Expert witness services
- Medical Review Officer services



## Accreditations and Qualifications



4348

(RTS accredited to ISO/IEC 17025 since 2009)

(RTS certified since 2014)



## Scientific Expertise

The European Workplace Drug Testing Society (EWDTS) The Society of Forensic Toxicologists (SOFT) UK and Ireland Association of Forensic Toxicologists (UKIAFT) The International Association of Forensic Toxicologists (TIAFT) International Forum for Drug & Alcohol Testing (IFDAT) The Royal Society of Chemistry (RSC)







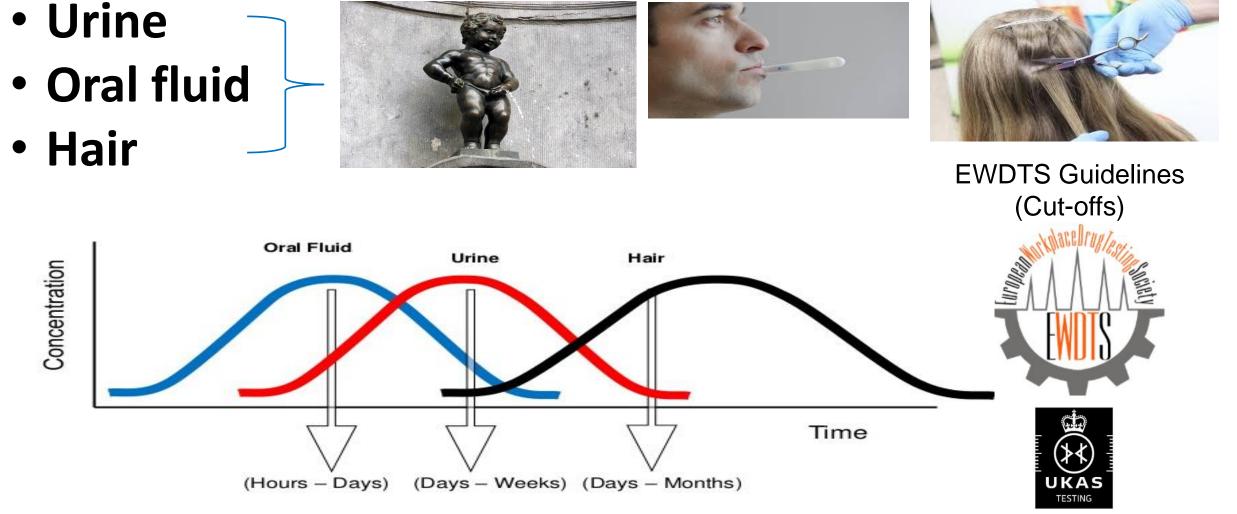




International Forum for Drug & Alcohol Testing



## Testing procedure



### Windows of detection

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Accredited to ISO/IEC 17025:2017

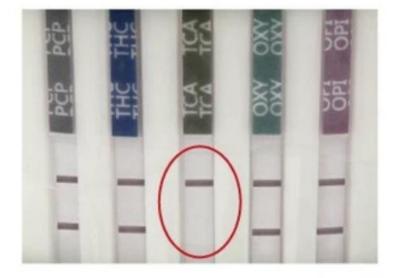
## Testing procedure: Urine example

All processes conducted to ensure specimen integrity and intact chain of custody

- All water sources sealed / dyed or removed
- Donor to remove outer clothing
- All equipment is demonstrably sealed prior to use.
- Donor to choose device from minimum of three units.
- Donor to enter collection location and provide specimen (minimum 40 mL)
- Specimen temperature must be within 32°C 38°C
- Collector reads results after 5 minutes
- $\circ~$  Screen Negative

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- $\circ~$  No further action.
- $\circ~$  Screen Presumptive Positive
  - $\circ\;$  Leads to back to lab test.







## Testing procedure: Urine example

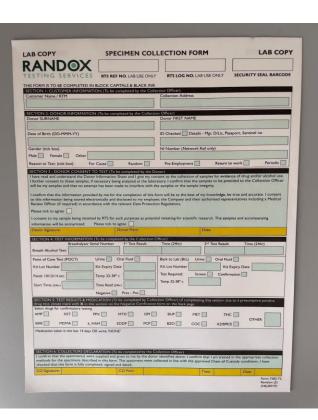
All processes conducted to ensure specimen integrity and intact chain of custody

- Back to lab specimens initiated
- Specimen is split between 2 tubes (A + B)
- Sealed / signed by the donor

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• Bagged and tagged with continuity paperwork





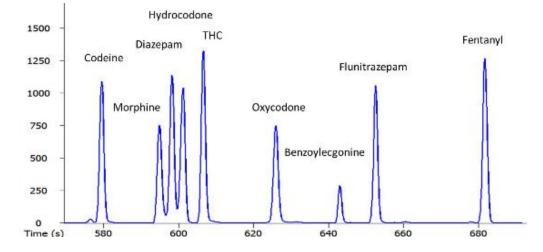














Results are compared to declared medication – potential mitigation for findings.

Toxicologist / Medical Review Officer – case review and conclusion.

Dental injections / CBD use / poppy seed consumption – all taken into consideration.

A and B specimens retained for 12 months to allow a B challenge request – initiated by the donor.

B specimen to be analysed by a suitably accredited laboratory.

Result reported as CONSISTENT or NOT CONSISTENT with original A specimen.





### MANAGING SHIFTWORK, HOME WORKING AND WORKING AWAY FROM HOME

#### **GDPR CONSIDERATIONS**

## Donor availability

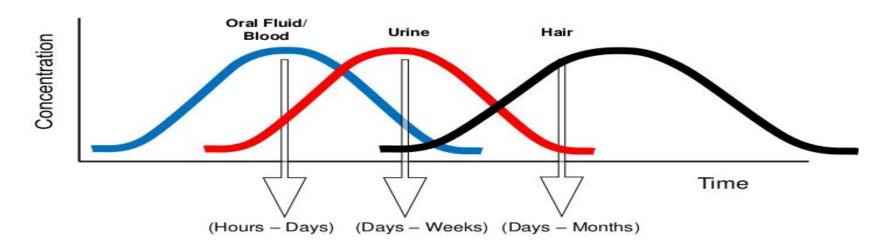
Post COVID-19 Working patterns have changed D&A testing regimes – Guidelines must be adhered to.

Shift workers – Collection officers can attend 24 / 7. All working patterns can be accommodated

Working away from home - Collection officers can attend ANY location. (Los Angeles / Crumlin / Tokyo / Melbourne)

Home working – Business centre meeting rooms, but not domestic properties.

- Issues with securing toilet facilities for urine collections.
- Oral fluid to overcome security concerns
- Hair testing to cover extended remote periods





## **GDPR** Considerations

- GDPR of paramount importance.
- Data Protection Impact Assessments standard practice.
- Unequivocal identification is of equal importance.
- Only the minimum Personal Identifiable Information is captured to link specimen to donor
  - $\circ$  Donor name
  - o Donor date of birth
  - $\circ$  Donor signature
- All data retained only as long as is necessary, but held under 24hr CCTV in biometric access facilities



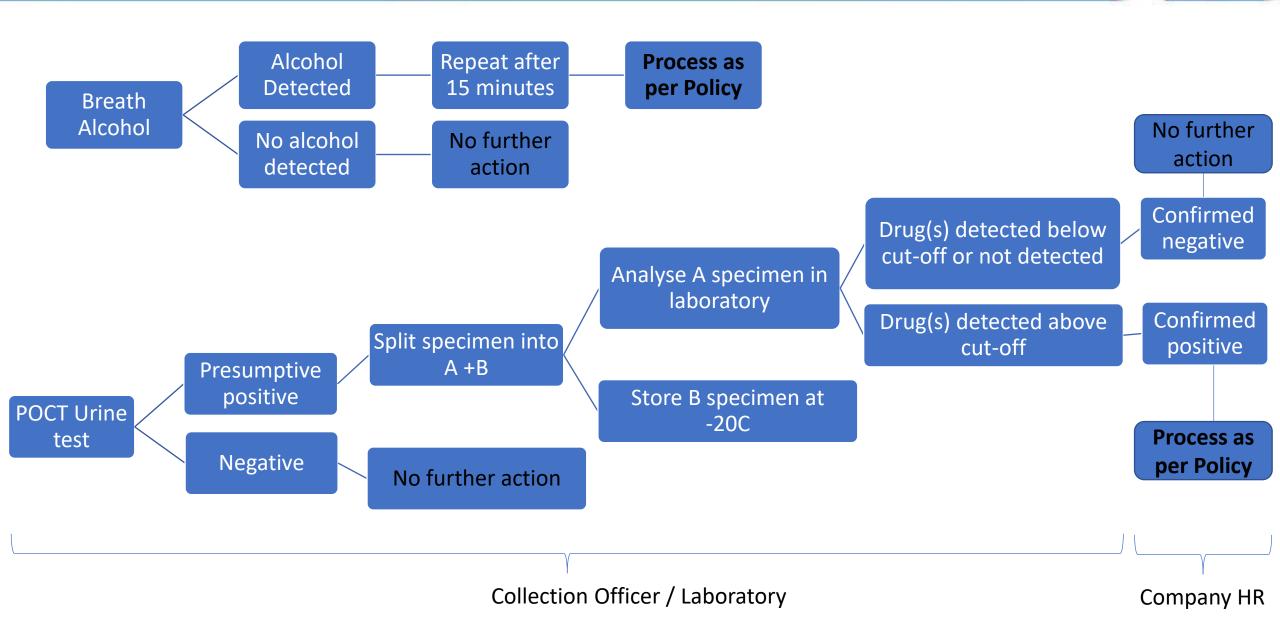




### DEALING WITH RESULTS – POSITIVE AND NEGATIVE

#### EMPLOYEE ASSISTANCE PROGRAMMES

## Negative / Positive Results



## **Employee Assistance Programmes**

- Substance addiction a recognised condition.
- Employee assistances programmes (EAP) to support recovery and re-integrate into workplace
- More employers now recognise an employee with an addiction is an asset worth recovering
- Employer's social responsibility







"What would you do if you suspected one of your employees was struggling with alcohol or drug dependence?"

- Apply your drug and alcohol policy
- Contact you drug and alcohol service provider
- Protect ALL of your employees, public and business interests





#### CASE STUDY 1



## CASE STUDY 1 – Collection event

- Business sector: Large scale fabrication facility in Northern England
- Employee type: Full time, permanent employee. Shift worker. Hopper filler on a feeder line.
- **Reason to test:** Near miss incident involving a fork-lift truck.
- Unscheduled call out initiated: Day 0
- Collection Officer attendance: Day 0 (+2 hrs).
- Testing format: Day 0
  - Exhaled breath alcohol NEGATIVE





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- Testing format: Day 0
  - Exhaled breath alcohol NEGATIVE
  - Urine drugs point of collection test device
    - SCREEN PRESUMPTIVE POSITIVE FOR AMPHETAMINES





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  - Urine specimen retuned to laboratory for confirmatory analysis



RANDOX Back to Lab Urine Kit



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  - Urine drugs point of collection test device
  - o Urine specimen retuned to laboratory for confirmatory analysis
- Employee: Suspended pending confirmatory analysis result.

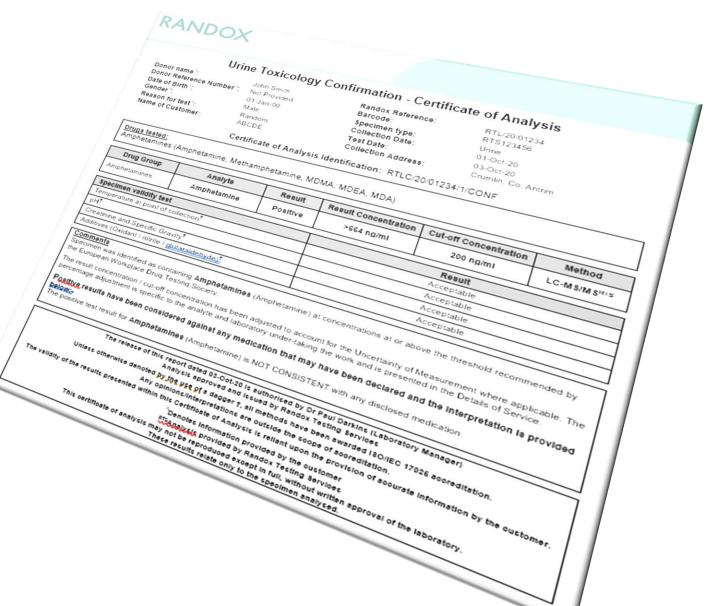
### CASE STUDY 1 – Follow up

#### Laboratory

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- Specimen receipt: Day 1, Continuity intact
- **Confirmatory analysis:** Day 2



### CASE STUDY 1 – Follow up

#### Laboratory

- **Specimen receipt:** Day 1, Continuity intact
- **Confirmatory analysis:** Day 2
  - POSITIVE FOR AMPHETAMINE



Certificate of Analysis Identification: RTLC/20/01234/1/CONF

#### Drugs tested:

Amphetamines (Amphetamine, Methamphetamine, MDMA, MDEA, MDA)

Drug Group	Analyte	Result	Result Concentration	Cut-off Concentration	Method
Amphetamines	Amphetamine	Positive	>664 ng/ml	200 ng/ml	LC-MS/MSRTS

#### **Comments**

Specimen was identified as containing **Amphetamines** (Amphetamine) at concentrations at or above the threshold recommended by the European Workplace Drug Testing Society.

The result concentration / cut-off concentration has been adjusted to account for the Uncertainty of Measurement where applicable. The percentage adjustment is specific to the analyte and laboratory under-taking the work and is presented in the Details of Service.

Positive results have been considered against any medication that may have been declared and the interpretation is provided below:-

The positive test result for Amphetamines (Amphetamine) is NOT CONSISTENT with any disclosed medication.

## CASE STUDY 1 – Follow up

### Laboratory

- Specimen receipt: Day 1, Continuity intact
- Confirmatory analysis: Day 2
   POSITIVE FOR AMPHETAMINE

### **Human Resources**

- Report receipt: Day 3
- Employee interviewed: Day 4
  - $\circ~$  Admitted amphetamine use at the weekend
  - Refused to acknowledge issue
  - Refused assistance to overcome substance misuse.
  - Drug and Alcohol Policy applied
- No legal requirement but within policy on health and safety grounds to dismiss.

## CASE STUDY 1 – Follow up

#### Laboratory

- Specimen receipt: Day 1, Continuity intact
- Confirmatory analysis: Day 2
   POSITIVE FOR AMPHETAMINE

netamine use at the weekend a acknowledge issue a assistance to overcome substance

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No legal requirement but within policy on health and safety grounds to dismiss.



Northern Ireland Safety Group



### CASE STUDY 2



### CASE STUDY 2 – Collection event

- Business sector: Pharmaceutical manufacturer, Scotland
- Employee type: Full time, permanent employee. Office-based
- **Reason to test:** Reasonable suspicion.
- Unscheduled call out initiated: Day 0
- Collection Officer attendance: Day 0 (+2 hrs).
- **Testing format:** Day 0
  - $\circ~$  Urine drugs point of collection test device NEGATIVE





### CASE STUDY 2 – Collection event

- o Business sector: Pharmaceutical manufacturer, Scotland
- Employee type: Full time, permanent employee. Office-based
- **Reason to test:** Reasonable suspicion.
- Unscheduled call out initiated: Day 0
- Collection Officer attendance: Day 0 (+2 hrs).
- Testing format: Day 0
  - Urine drugs point of collection test device NEGATIVE
  - Exhaled breath alcohol ALCOHOL DETECTED
    - $\circ$  34 µg alcohol / 100 mL breath (10:17 hrs)
    - 31 μg alcohol / 100 mL breath (10:32 hrs)

Breath alcohol cut-off in Policy = 22 µg alcohol / 100 mL breath



## CASE STUDY 2 – Follow up

### **Human Resources**

- Employee interviewed: Day 1
  - o Admitted alcohol use
  - $\circ$  Acknowledged issue
  - Open to assistance to overcome substance misuse.
  - $\circ~$  Drug and Alcohol Policy applied
  - Employee Assistance Programme
  - Abstinence testing







## CASE STUDY 2 – Follow up

### **Human Resources**

- Employee interviewed: Day 1
  - Admitted alcohol use
  - Acknowledged issue
  - Open to assistance to overcome substance misuse.
  - Drug and Alcohol Policy applied
  - Employee Assistance Program
  - Abstinence testing

#### Laboratory

- Unannounced PEth testing
  - Phosphatidylethanol analysis of dried blood spot



- Can support claim of abstinence for up to one month prior to specimen collection
- Sporadic testing over 3 months
   (Day 41, 55, 86)

## CASE STUDY 2 – Follow up

### Human Resources

- Employee interviewed: Day 1
  - Admitted alcohol use
  - $\circ$  Acknowledged issue
  - Open to assistance to overcome substance misuse.
  - Drug and Alcohol Policy applied
  - Employee Assistance Program
  - Abstinence testing

### Laboratory

#### Unannounced PEth testing

#### Certificate of Analysis Identification: RTM04678/1/BAB

Biomarker / Analyte	Result	Result Concentration	Cut-off	Method
Phosphatidylethanol (PEth 16:0/18:1)	Not Detected	-	20 ng/ml	LC-MS/MS <sup>CAN</sup>

#### Interpretation of Results

Comment

<20 ng/ml – Light or No Consumption – Supports claim of abstinence or low alcohol consumption up to a month prior to specimen collection. Low alcohol consumption is considered as < 1-2 standard alcoholic drinks per day for several days a week.

20-200 ng/ml – Significant Consumption – Indicates moderate level of alcohol consumption up to a month prior to specimen collection. Significant alcohol consumption is considered as 2-4 standard alcoholic drinks per day for several days a week.

>200 ng/ml – Heavy Consumption – Indicates Excessive alcohol consumption up to a month prior to the specimen collection. Heavy alcohol consumption is considered as more than 4 standard alcoholic drinks per day for several days a week.

Note: The frequency of alcohol consumption can affect PEth results, ten drinks consumed in one episode will produce a higher PEth level than if ten drinks were consumed in five episodes.



## CASE STUDY 2 – Follow up

### **Human Resources**

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  - Employee Assistance Program
  - Abstinence testing

### Laboratory

- Unannounced EtG testing
  - Ethyl glucuronide analysis of hair specimen



• Can support claim of abstinence for up to three months prior to specimen collection

## CASE STUDY 2 – Follow up

### **Human Resources**

- Employee interviewed: Day 1
  - Admitted alcohol use
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  - Open to assistance to overcome substance misuse.
  - $\circ~$  Drug and Alcohol Policy applied
  - Employee Assistance Program
  - Abstinence testing

## Laboratory Unannounced EtG testing

Segment I.D.		N/A		Section Length	0.0 – 3.0cm	
Period of Detection		Approx. Mid-May2021 to Mid-August 2021 (~3 months)				
Biomarker / Analyte		Result Result Concentration		Cut-off Concentration	Method	
Ethyl Glucuronide	e (EtG)	Negative	-	> 5 pg/mg	LC-MS/MS <sup>CAN</sup>	
-		-	alcohol consumed within t chemical / thermal cosme			
<u>Ethyl Glucuronide (EtG</u> EtG ≤ 5 pg/mg		laim of abstinenc	e - Occasional drinking e	events cannot be exclu	ded.	
EtG >5 to <30 pg/mg	Strongly sugg	Strongly suggests repeated alcohol consumption (jg. multiple episodes of moderate drinking)				
EtG ≥ 30 pg/mg	*The World He	y suggests chronic excessive alcohol consumption* /orld Health Organisation defines chronic excessive alcohol consumption as 60g (approximately 7.5 of ethanol per day over several months)				

## CASE STUDY 2 – Follow up

Em

### Human Resources

- Employee interviewed: Day 1
  - o Admitted alcohol use
  - Acknowledged issue
  - Open to assistance to overcome substance misuse.
  - Drug and Alcohol Policy ap
  - Employee Assistar:
  - Abstinence test

loyee. Office-based



Conclusion

"What would you do if you suspected one of your employees was struggling with alcohol or drug dependence?"

- Apply your drug and alcohol policy: Both case studies invoked this policy
- *Contact you drug and alcohol service provider*: Donor tested within 2 hours
- Protect ALL of your employees, public and business interests:
   Either by removal or rehabilitation and re-integration, all were protected in both case studies.





testingservices@randox.com