

Roadside Drug Detection



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Background

- ❑ Drug use by drivers is an issue of increasing concern
- ❑ Legalization of recreational cannabis has the potential to increase overall cannabis use and use by drivers
- ❑ Drug-driving is a more complex issue than drinking and driving

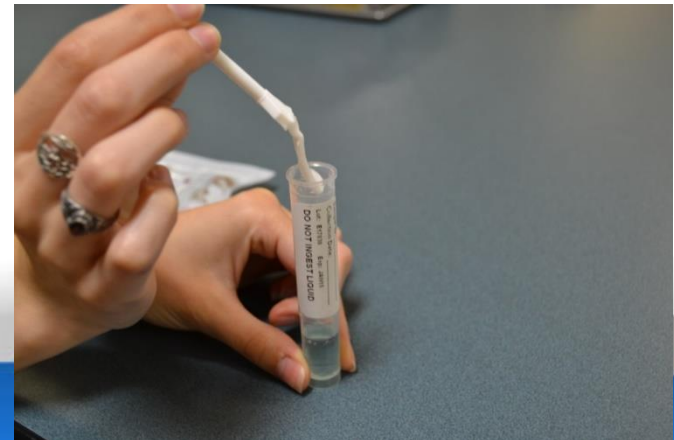


What's the problem?

- ❑ Desire to have a device that could detect and measure drugs quickly and easily
- ❑ Something similar to approved screening devices (ASDs) for alcohol
- ❑ Easily administered, unobtrusive, quick, accurate
- ❑ Indicate if drug level was over the limit
- ❑ Provide reasonable and probable grounds

What are the Options?

- Blood
- Urine
- Breath
- Sweat
- Oral Fluid



Oral Fluid Project

- ❑ Canadian Society of Forensic Science Drugs and Driving Committee
- ❑ Asked to investigate feasibility of point of contact oral fluid testing
- ❑ Test oral fluid drug screening devices to determine their adequacy for potential use in the enforcement of drug-impaired driving in Canada
- ❑ Develop standards for devices that manufacturers must meet to be able to sell their device in Canada

DRUG SCREENING DEVICES



Field Oral Fluid Collection

- Samples collected from a group of people who had been using drugs**
- 646 samples collected**
- Samples tested on site with one of three devices**
- A second sample was collected and sent to lab for confirmatory analysis**

Field Oral Fluid Collection

- **Drugs tested for:**
 - **Cannabis (THC)**
 - **Cocaine (benzoylecgonine)**
 - **Amphetamine**
 - **Methamphetamine**
 - **Opioids**
 - **Benzodiazepines**

Performance Measures

	Sensitivity	Specificity	Miss Rate	False Alarm Rate
All Drugs & Devices	.874	.932	.126	.068
THC	.869	.955	.131	.045
Cocaine	.846	.993	.154	.007
Amphetamine	.771	.964	.229	.036
Meth	.840	.965	.160	.035
Opioids	.899	.931	.101	.069
Benzo	.592	.976	.408	.024

Standards

- Standards are in development
- Provide clear direction as to what will be required of devices
- Process will be resource intensive:
 - Time & Money
- Devices must meet standards before use
- Who's going to do it? Who's going to pay?

How will Oral Fluid Screening be used?

- Officers trained in drug signs and symptoms *and* use of OF screening devices
- Reasonable suspicion of drug use
- Demand driver provide a sample of oral fluid to be screened for drug use
- Positive test provide reasonable and probable grounds for a blood test and/or evaluation by a DRE

How Would They Be Used?

Alcohol

Suspicion

SFST/Roadside
Breath Test

Administrative
Suspension

Evidential
Breath Test

Drugs

Suspicion

SFST/
Oral Fluid Screen

Admin
Suspension?

DRE/Blood Test

Points to Remember

- Only screen for a small number of drugs
- 'Miss rate' & 'False Alarm rate' need to be examined carefully
- Not evidential -- another sample submitted to a Forensic Laboratory
- Not** impairment detectors
- Do **not** remove the need for the DREs
- Oral fluid testing is a tool, not the solution

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