

Operational guidance

Reducing exposure and contamination risks in drug checking services



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Document Purpose

This document provides operational guidance for drug checking sites to develop safety policies for their individual worksites and contexts including guidance to mitigate and prevent harms specific to drug checking services.

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Target Audience

Community groups, organizations, policy makers and people with lived and living experience that deliver drug checking services across British Columbia.

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Land Acknowledgement

The British Columbia Centre on Substance Use would like to respectfully acknowledge that the land on which we work is the unceded territory of the Coast Salish Peoples, including the territories of the x^wməθkwəyəm (Musqueam), Skwxwú7mesh (Squamish), and səlíp lwətał (Tsleil-Waututh) Nations.

We recognize that the ongoing criminalization, institutionalization, and discrimination experienced by people who use drugs disproportionately harm Indigenous peoples and that continuous efforts are needed to dismantle colonial systems of oppression. We are committed to the process of reconciliation with Indigenous peoples and recognize that it requires significant and ongoing changes to the health care system.

We hope that this guide contributes to developing systems of care that provide safe, respectful, evidence-based support for people at risk of harms from the toxic unregulated drug supply.

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Common Acronyms

AACT	American Academy of Clinical Toxicology
ACMT	American College of Medical Toxicology
BCCSU	British Columbia Centre on Substance Use
DCS	Drug Checking Services
FTIR	Fourier-transform infrared (spectroscopy)
GC-MS	Gas chromatography-mass spectrometry
GHB	Gamma hydroxybutyrate
LC	Liquid chromatography
MDA	3,4-Methylenedioxyamphetamine
MDMA	Methylenedioxy-methylamphetamine.
OPS	Overdose Prevention Site
PPE	Personal protective equipment
SCS	Supervised Consumption Site
SOP	Standard Operating Procedure

Background

Drug checking is a public health intervention. It allows the analysis of drug samples from unregulated drug supply chains, providing vital information about the composition of drug samples for community members. Drug checking enables individuals to make informed decisions about the drug samples on hand to avoid using unanticipated toxic substances, taking action to reduce overdose risk and other harms. Drug checking services use different service delivery models—many are offered by harm reduction organizations at fixed supervised consumption sites, at community health centres, or at temporarily designated events such as music festivals.

Low-barrier community <u>point-of-care drug checking services</u> test for a range of substances, including opioids, stimulants, and other psychoactive drugs such as MDMA. Services give people information about what is in their drugs in less than

10-minutes and discuss approaches for reducing risk and harms. Results from drug checking also provide significant data about the illegal drug supply that is shared with local and provincial public health officials to help identify trends and inform responses to the toxic drug crisis. Drug checking services (DCS) across Canada use different types of technology to conduct their analyses, including immunoassay test strips, which detect the presence of specific drugs; traditional forensic drug analysis equipment, such as liquid chromatography and gas chromatography—mass spectrometry (LC and GC-MS); and Fourier-transform infrared spectrometry. In British Columbia, DCS primarily use Fourier-transform infrared spectrometry (FTIR) in combination with immunoassay test strips at point of care drug checking sites.

Promoting healthy work environments is essential to protecting the health of people working in DCS while offering low-barrier services to people at high risk of drug related harms.

Trained staff operate DCS and, as part of this work, routinely handle drugs in the process of receiving, analyzing and disposing of samples brought in for this service. During testing, different types of instruments, consumable supplies (eg: disposable gloves, Kim-wipes, paper medicine cups), and surfaces upon which services are provided come into contact with samples. Because of the potential for harm to people who may be exposed to drug samples through DCS, it is important to provide guidance for the prevention of unintentional exposure or contamination.

Purpose and Scope of this Document

The purpose of this document is to provide drug checking sites with a standard of expectations to refer to when developing safety policies for their individual worksites and contexts. It is a supplement to:

- existing protocols on workplace safety. Where discrepancies or gaps exist, it is recommended that the organization providing DCS develop and/or reconcile protocols with the guidance outlined within this document. Guidance on broader workplace health and safety considerations, such as workplace violence and ergonomics policies, are beyond the scope of this document.
- augment Section 3.3 "Site and Staff Safety" of the <u>Drug Checking Operational</u> <u>Technician Manual Version 2</u>. Specifically, this document identifies areas of risk for exposure and contamination specific to the provision of DCS and offers guidance for mitigating and preventing harms.

Within this document, the term "drug" encompasses any substance that may be tested

at a drug checking service, including, but not limited to, pharmaceutical grade and illicit substances. These drugs are most often intended to be consumed by a person and would be the same substances that would be used in a supervised consumption site. Therefore, guidance on safe workspaces for supervised consumption sites are considered complementary to this guidance specific to drug checking.

Drug Checking Risk Overview

Type of Substances

According to data gathered through the provision of DCS within BC, the types of substances most commonly identified in tested samples belong to the following drug categories:

- Opioids (including heroin, morphine, fentanyl and fentanyl analogues)
- Stimulants (including cocaine and amphetamines)
- Depressants (including benzodiazepines and GHB)
- Psychedelics (broad category including MDMA, MDA and ketamine)

The above drug categories are not identified as hazardous under the US National Institute for Occupational Health and Safety's list of antineoplastic and other hazardous drugs in health care settings.1

Nevertheless, these drug categories are potentially harmful to most people and may result in serious injury or death in the event of an unintended exposure or contamination. Procedures for the initial handling of these drugs comply with strict health practices commonly followed in harm reduction settings, designed to avoid unintentional exposure and contamination. Because drug samples are actively handled further by drug checking staff for testing, there is a need for further guidance addressing activities and procedures related directly to DCS as described below.

Routes of Occupational Drug Exposure and Contamination

The potential routes of occupational exposure are dependent upon the dosage form of the substance being handled. The following three dosage forms are the most commonly tested on the Fourier-transform infrared (FTIR) spectrometer:

Solid Form substances typically come in the form of pressed pills, capsules, or a crystallized chunk. Drugs in solid forms are easier to see and handle. They are less likely to result in accidental exposure unless crushed into powdered form. Note that in order to be tested all solid form drugs must be crushed into a powdered substance.

Powdered substances have a greater likelihood of causing exposure as powder is more likely to cling to clothing or skin, be hard to see on surfaces, and as a result, transfer from hands to eyes or mouth. Powdered substances can also be at risk of getting into cracks in objects in the workspace, such as table surfaces, and potentially crosscontaminate other drug samples. Powder substances may need to be crushed further. If not crushed correctly or if swept from a dry surface, powders can also become airborne.

Liquid substances are not as commonly tested at drug checking services, though there are some exceptions. Using standard test strip procedures, substances are further mixed and dissolved in water with the resulting liquid/sample water requiring proper handling and disposal. The resulting liquid/sample water should be considered equivalent to the substance from the time the test begins until its disposal at end of testing.

For substance exposure to occur, the drug must enter the blood from the environment. In order to prevent this from occurring, all staff involved in a drug checking site should have a proper understanding of typical routes of unintentional exposure. When providing drug checking services, unintentional exposure may occur through the following routes:

- 1. Mucus Membrane/Ocular-Facial Drug Exposure: Contact of substances with mucous membranes present opportunity for drugs to enter the body and bloodstream. In the case of splashing or other accidental applications to the face, exposure to substances to the eyes and/or mucus membrane may occur.
- 2. Dermal Drug Exposure: According to the American College of Medical Toxicology (ACMT) and American Academy of Clinical Toxicology (AACT), the risk of absorbing a powdered substance through unbroken skin is low. From the ACMT and AACT:

¹ See National Institute of Occupational Safety and Health, Centres for Disease Control and Prevention (2016). List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings. Available at https://www.cdc.gov/niosh/ docs/2016-161/default.html

Based on our current understanding of the absorption of fentanyl and its analogs, it is very unlikely that small, unintentional skin exposures to tablets or powder would cause significant opioid toxicity, and if toxicity were to occur it would not develop rapidly, allowing time for removal².

Of more concern is that drugs, especially in powder form, are likely to sit on the skin and potentially be transferred to the mouth or eyes via the hands or clothing. Care must be taken to minimize the risks from routine handling of powdered substances. Some drugs may be absorbed through skin through mediums such as transdermal patches or solvents. However, these mediums are not commonly tested through drug checking services. For many substances, a primary concern for dermal exposure is the potential for skin or eye irritation and/or rash.

3. Aerosolized Drug Exposure: Inhalation is an exposure route of concern if drug particles are suspended in the air. However, if proper procedures are adhered to for: opening capsules, crushing drugs (e.g. tablets or crystalline chunks) in preparation for testing; processing samples; and cleaning equipment, the risk of drug particles reaching high airborne concentration is low. For example, in testing carried out at five supervised consumption sites (SCS) and overdose prevention sites (OPS), the BC Centre for Disease Control found that none of these sites had significant levels of fentanyl detected in the air.3 Notably, no substances are heated during the FTIR drug checking procedures, meaning vapourization of substances is highly unlikely.

Drug Checking Site: Possible Scenarios of Exposure

The following scenarios demonstrate possible routes of exposure that may result in the course of drug checking procedures:

1. Drug checking technician Alex is conducting a test on a powdered substance using the FTIR. Their personal water bottle is on the table at the edge of the workstation, and while waiting for test results they pick up the water bottle with a gloved hand and take a drink. This leaves residue from the testing substance on the water bottle. Later, when they are taking a lunch break, they remove their gloves and carry the water bottle to the lunchroom. After touching the water bottle, they pick up their sandwich to eat.

Possible route of exposure: Trace amounts left from residue on their gloves was transferred to the water bottle, to the sandwich where it was ingested.

Risk Mitigation Control: No food, drink, or other personal items should be in the drug testing area, training for all staff on health and safety practices around drug checking services.

2. Bryce is an administrative assistant working at a site that offers drug checking services. He stops by to visit with the drug technicians while they are testing a sample and leans his hand on the table. Soon after he touches his nose, and later develops a racing heart rate, feelings of anxiety, and nausea while he is alone in his office.

Possible route of exposure: Residue on the table was transferred to an individual not working in drug checking. Individual is exposed through casual visit to drug checking service area; he picks up traces of the testing substance on his hand, taking it with him when he returns to his desk.

Risk Mitigation Control: training for all staff on health and safety practices around drug checking services.

² Moss MJ, Warrick BJ, Nelson LS, et al. ACMT and AACT Position Statement: Preventing Occupational Fentanyl and Fentanyl Analog Exposure to Emergency Responders. Journal of Medical Toxicology. 2017, 13(4): 347–351. doi. org/10.1007/s13181-017-0628-2.

³ Chiang T, Leung V, Lem M. Assessment of Occupational Fentanyl Exposure in Overdose Prevention and Supervised Consumption Service Sites in British Columbia. BC Centre for Disease Control. 2018. Available at http://www.bccdc. $ca/resource-gallery/Documents/Educational\%20 Materials/Epid/Other/BCCDC_occupational\%20 fentanyl\%20$ exposure%20asessment%20report.pdf

3. After beginning the FTIR testing, technician Kelly has substance residue on their nitrile gloves. They feel an itch in their eye and rub it without thinking, transferring the residue into their eye. They do not realize their error until they begin to feel irritation in their eye.

Possible route of exposure: Residue on their gloves was transferred to the eye Risk Mitigation Control: Gogales or safety glasses; training for all staff on health and safety practices around drug checking services.

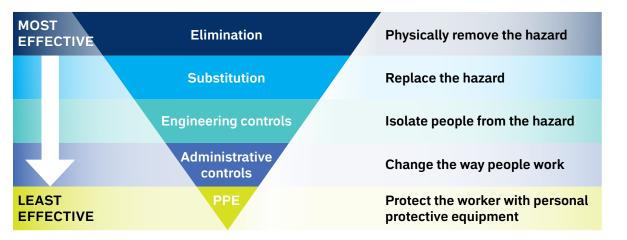
4. Technician Max completed a test strip procedure on a substance and left the remaining sample water on the table while completing another the FTIR analysis. Someone passing by in the drug testing area accidently bumped into the table, knocking over the remaining sample water, spilling it across the table and onto Max's gloved hands. Before Max thought about it, they wiped their face and transferred some of the test water near their mouth and eyes. Max started to feel ill about 30 minutes later and had another staff member give them naloxone.

Possible exposure: Individual not working in drug checking bumping into table and knocks over remaining sample, residue on gloves was transferred to mouth/eyes

Risk Mitigation Control: Disposing sample water as soon as testing is complete, training for all staff on health and safety practices around drug checking services.

Reducing Risks in Drug Checking through **Hierarchy of Controls**

The Hierarchy of Control is a method of reducing risk to employees in the workplace. It is a widely accepted system commonly used by occupational safety and health organizations.



Source: WorkSafeBC

Due to the nature and intent of drug checking services, the first two steps in the Hierarchy of Control – Elimination and Substitution – are not possible avenues for risk mitigation. For this reason, all sites are expected to develop procedures related to (1) engineering controls, (2) administrative controls and (3) personal protective equipment to reduce risk. At each level of control, resources are recommended for sites to use in developing their own guidelines according to each sites' specific location, staffing, and resources.

Drug Checking Workspace Safety Guidance

Prior to establishing safety policies and procedures for drug checking services, all drug checking sites are expected to assess the risks within the context of their local service associated with handling and disposal of substances at drug checking services with consideration of:

 Layout of the site and where drug checking is conducted within the site – degree of confinement, workspaces, workflow, storage of equipment, proximity to other work areas within the site.

- Information about the type of substances and paraphernalia that will be handled and disposed of during drug checking procedures including current information about contamination.
- Duration of time that workers are exposed to contaminants while conducting drug checking services
- Ability to mitigate risks according to the Hierarchy of Control

For more information on hazard identification and assessment of risk, including resources on developing a comprehensive risk assessment plan, please visit https:// www.worksafebc.com/en/health-safety/create-manage/managing-risk/assessing-risks

Engineering controls 1.0

Workspace set up

- A minimum 48" x 38" table with a clear working surface used only for drug checking services – the working surface should be large enough to conduct all procedures related to checking drug samples and should not be used for any other activities. This surface should be non-porous and be able to withstand repeated cleaning with alcohol, water and peroxide based cleaners. A dark color such as black makes seeing particles easier. Food, drink, personal effects, and any other items not used for the process of drug checking should be kept and used in other locations.
- A clear workflow of the drug sample from receipt to returning to the client that minimizes the handling of the substance – guidelines outlining every step of the drug checking process from start to finish should be established (see section 2 – Administration Controls: Drug Checking Procedures for more information). This workflow should emphasize the need to take appropriate time for procedures in order to reduce the likelihood of error and exposure.

1.2 Service location within Site

- Clear traffic flow for drug checking services clients In busy sites, it is important to have clear workflow for clients to access service without creating congestion in front of drug checking workspace. Waiting space, line ups or other methods may help reduce congestion and improve safety of working space around testing area. Having a clear flow for clients of drug checking services, arranging the queue in order to avoid clustering or traffic congestion at the workspace.
- Space that prevents distractions At all times during the drug checking procedure, technicians should be given the space, time, and focus in order to focus on performing their tasks safely. Drug checking services should be conducted in a location that provides the drug checking staff with few distractions and enough space to focus on analysis without requiring to be engaged in other activities. This space should be made clear to other staff working in proximity to the service to avoid distracting technicians while drug checking is occurring.
- Clear lines of sight for drug checking staff Drug checking technicians should strive to maintain clear lines of sight to clients and other staff in the area in the case of accidental exposure requiring assistance or support managing clients.
- Workspace should be set up in a space that has close by access to sink for handwashing.
- Lighting Ensure adequate lighting in the workspace while drug checking services occur. An appropriate color temperature and intensity for conducting precision work is required (>1000LUX and between 5000K and 6500K).
- Separate space for other activities There should be a location for staff to take breaks, eat meals, store personal items, etc. separate from the working surface used for drug checking services. Food, drink, personal effects, and other items not related to drug checking services should not be present on the work surface or workspace.
- Storage Secure storage specific for drug checking equipment and supplies. This storage is not to house other site equipment or should keep equipment and supplies used in other programs at the site well separated, such as a lidded bin, a file cabinet or a separate closet dedicated to drug checking.

 Ventilation – substances are not heated during drug checking procedures therefore ventilation is not required. Other processes such as opening capsules, crushing drugs prior to testing, and thoroughly cleaning equipment will help to reduce the opportunity for aerosolization of drugs.

1.3 Where possible, the following additional engineering controls should be considered:

- Eye washing station In case of mucus membrane/ocular-facial or dermal drug exposure emergency eye washing facilities (portable⁴ or existing running water capable of flushing an eye) should be near the working surface used for drug checking services.
- Spill kit⁵ Include written procedures to perform emergency clean-up of spills or release of hazardous chemical or biological agents. Appropriate personal protective equipment and other equipment necessary to control and dispose of the spill (e.g., absorbent pillows, detergents/disinfectants, biohazard bins) must be kept immediately available⁶.

For more information on emergency washing facilities and spill clean-up procedures including spills kits, please visit: https://www.worksafebc.com/en/law-policy/ occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-05chemical-and-biological-substances

- See example of portable eye washing station available at: https://www.grainger.ca/en/product/p/DSIFAEWS1114E
- See example of biohazard spill kit available at: https://www.promedicacanada.ca/biohazard-spill-kit-midi-10-spills Note spill kit equipment must tailored to specific substances in use at the drug checking site.
- See WorkSafeBC, Occupational Health and Safety Regulations (2011). OHS Regulation Part 30: Laboratories. Available at: https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ ohs-regulation/part-30-laboratories#SectionNumber:30.18

2.0 Administrative Controls

2.1 Drug Handling

- Every Drug Checking site is expected to provide services in a way that minimizes the risk of exposure to staff and clients. Most routine activities are well described in the BCCSU Drug Checking Technician Manual in accordance with safety measures to prevent exposure and contamination through cleaning, PPE, and safe handling. However, some activities require further safety considerations. Some drugs, such as pressed pills and capsules require preparation to a powder before being analyzed. In these activities of prepping a sample, there is the risk of contamination if powder is released into the air or if there is a spill.
- Opening capsules when possible, have clients open capsules into a baggie prior to presenting the sample for testing. If this is not possible, technicians should open capsules gently on a clean surface free of contaminates before proceeding with testing.
- Crushing drugs when a solid drug form requires to be crushed into powder prior to analysis, the technician should ensure that no powder is sprayed into the air. Pill crushers such as 'Silent Knight' are recommended as the substance is put into a plastic baggie and then contained within the device to keep powder from being expelled under pressure. Likewise, when using other crushing type devices or methods, drug sample must be at minimum double bagged in a strong plastic baggie to prevent tears in the plastic. See Standards of Procedures for Drug Crushing https://drugcheckingbc.ca/wp-content/uploads/sites/2/2023/11/ SOP-Drug-Crushing.pdf for more detailed guidance on procedures.
- Water used for test strips must be in clearly marked container used for drug checking and kept separate from any drinkable containers (technicians should take care not to confuse water bottles used for testing with staff drinking water bottles).
- If any liquids other than water are used in drug checking procedures (e.g., isopropanol or methanol), these liquids are to be kept in properly identified containers and appropriately labeled. Only use labware to handle substances and liquids.

The Canadian Centre for Occupational Health & Safety's Workplace Hazardous Materials Information System (WHMIS) has developed a comprehensive approach to labelling hazardous substances in the workplace, in concordance with the Globally Harmonized System of Classification and Labelling of Chemicals. Information about WHMIS and labelling is available at https://www.ccohs.ca/oshanswers/chemicals/whmis ghs/labels.html#section-1-hdr

2.2 Cleaning procedures for equipment

- The FTIR instrument needs to be cleaned regularly between samples as well as prior to use and at the end of each shift. The storage container must also be kept clean and free of dirt to ensure the device is kept clean. For more in-depth cleaning and storage protocols for FTIR refer to page 19 of the BCCSU Operational Technician Manual for more details.
- All reusable equipment, such as stainless steel spatulas, must be cleaned between samples, as well as before and at the end of each shift.
- Isopropyl alcohol must be used to clean equipment to ensure that any substance is dissolved before next sample is tested to avoid cross contamination and potential exposure. Stevens alcohol prep pads can be used for this purpose.
- All equipment should be cleaned prior to being stored for any length of time and should be stored in a safe and secure location dedicated to drug checking supplies.
- PPE requirements for cleaning procedures are indicated below in section 3.0.

2.3 Cleaning procedures for surfaces

- All surfaces should be cleaned at the beginning and end of each shift as well as after each sample is processed in order to reduce likelihood of exposure and sample cross-contamination. This includes the table and chairs of the drug checking workstation, as well as laptops, phones, keyboards, and other surfaces in immediate vicinity of where the service is provided. These cleaning protocols are in addition to regular cleaning required by an organization.
- Cross-contamination prevention via drug checking equipment technicians are expected to maintain a clean environment so as to avoid any possibility of cross-contamination of samples and unintentional exposure.
- Cleaning products need to be able to dissolve any drug residue left on equipment or surfaces. The following products are recommended for surfaces: isopropyl alcohol.
- PPE requirements for cleaning procedures are indicated below in section 3.0.

2.4 Handwashing

 Technicians are expected to wash hands with soap and water at the beginning and end of each shift, and at any point there may have been contact with a substance, and after removing gloves. The wearing of gloves does not replace the need for handwashing procedures. The use of alcohol hand sanitizer is not recommended because alcohol can increase absorption of substances through the skin.

2.5 Disposal procedures

- Disposal procedures are intended to prevent diversion of drugs from waste and prevent unintentional exposure for anyone who may come in contact with the waste matter.
- All drug checking sites need have clear disposal procedures for samples and any consumables used in the process of drug checking. Drug checking sites are expected to develop disposal processes in alignment with BCCSU Standard Operating Procedures on Disposal of Drug Checking waste (SOPs) and any existing SOPs for their region or organization.
- Disposal procedures should address the following steps:
 - Drug checking technicians should strive to take only as much of the substance needed to have sufficient sample available for testing. Only return remainder of sample to client if requested.
 - Render any remaining substance/waste water inert this may be done by mixing with charcoal or kitty litter, or using Deterra Pouches.
 - Safe disposal of inert sample waste in an appropriate receptacle that will be destroyed, such as a biohazard bin (yellow sharps boxes).
 - Disposal of any consumable used during the testing procedure including test strips, plastic or paper cups, alcohol swabs, task wipes, single-use PPE (i.e., gloves), and/or any other materials that may be at risk of transporting residue can be deposited into regular garbage.
 - In the case that large amounts of substance (more than can be easily made inert) need to be disposed of, local RCMP detachment may be contacted to collect for destruction.

2.6 Spill Response

- Spills may include wet or dry substances. Drug checking sites are expected to create spill protocols that take into consideration the needs and limitations of their space, staffing, and resources (see procedure example 3)8. These protocols should detail steps to:
 - containing a spill
 - absorbing spilled substances
 - usage of PPE
 - cleaning products to be kept on hand and used when a spill occurs, specifically products that dissolve drug substances.
 - proper cleaning of surfaces after a spill
 - proper disposal of cleaning materials such as rags, paper towel, etc.

2.7 Training

- Every Drug Checking Site is expected to ensure that all drug checking staff have completed BCCSU drug checking training or equivalent to ensure proper operations and procedures are followed. In addition, Drug Checking Sites are required to ensure that drug checking staff complete any other safety trainings required for their site that address general safety. Training should at minimum cover the following subjects:
 - Potential exposure routes, likelihood and potential consequences of exposure
 - Safe handling of drug samples during drug checking procedures
 - Safe use of drug checking equipment including cleaning, storage, transportation, and operation.
 - Use of PPE when drug checking including safe donning, safe doffing, and limitations of PPE
 - How to clean surfaces with appropriate procedures and products.
 - Response to exposure All technicians are expected to know how to respond when an accidental exposure occurs. Training should include:
 - Naloxone All sites are expected to maintain Naloxone on site and to train staff in its administration. Naloxone should be administered to those with objective signs of hypoventilation from opioid intoxication.
 - Overdose response Workers who may encounter fentanyl or fentanyl analogs should be trained to recognize the symptoms and objective signs of opioid intoxication, should have naloxone readily available, and should be trained to administer naloxone.
 - General first aid staff should be aware of first aid procedures as well as the address of the DCS location should a call to emergency services become necessary. At least one staff with up-to-date first aid training must be available during drug checking service hours.

See WorkSafeBC, Occupational Health and Safety Regulations (2011). OHS Regulation Part 30: Laboratories. Available at: https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ ohs-regulation/part-30-laboratories#SectionNumber:30.18

3.0 Personal Protective Equipment

Gloves

Drug technicians are required to wear gloves. For routine handling of drug, one pair of nitrile gloves provide sufficient dermal protection. Gloves should be changed when contact with a sample occurs or every 30 minutes to prevent cross-contamination from one sample to another as well as to prevent accidental exposure. Note: handwashing procedures are not to be replaced by gloves.

3.2 Masks

Staff handling drugs for drug checking are expected to wear a medical mask to mitigate risk of drug exposure through face contact. As the risk of drug particles or droplets suspended in the air is negligible, a medical mask provides sufficient protection in preventing droplets or powdered substances from accidentally entering the mouth. In addition, substances are not burned, aerosolized, or vaporized during the testing process.

3.3 Protective Eyewear

Plastic goggles or safety glasses are recommended during tasks where there exists possibility of splash to the face. Protective eyewear should be cleaned with solvents before and after use, and in the event of possible contamination from substances.

3.4 Protective clothing

As mentioned previously, powdered substances may cling to clothing and be involuntarily carried outside of the drug checking workspace. Use of a lab coat or other overgarment is recommended to minimize the risk contaminants clinging to clothes and being transferred to other locations after a drug checking shift. Protective clothing is to be worn only for drug checking activities. Lab coats or overgarments should be placed in plastic bag when taken off site and laundered regularly. Ideally, lab coats stay on site until they are to be washed.

4.0 Special Considerations

The preceding pages describe the safe operation of drug checking services under most common service circumstances. However, the procedures, controls, and guidelines above may at times need to be adapt to different service models. When adapting drug checking policies and procedures to different service models, technicians are expected to be mindful of their training and adhere to all safety protocols and legal requirements. At all times when operating away from the primary site the safety of clients and staff should be the top priority. The following considerations may need to be addressed in the context of different service models:

4.1 Mobile services

When moving equipment or transporting equipment in cars, refer to the BCCSU Operational Technician Manual (pg. 25). When operating out of 'host' sites, technicians are expected to maintain all safety procedures as well as considerations including workspace cleanliness, workflow, proper disposal procedures, and working free of distractions.

4.2 Drop off services

Some sites operate a drop-off service, where clients can leave samples after hours to be checked when technicians return. The handling and storage of samples when drug checking technician is not available to receive sample must conform to all safety requirements as otherwise outlines in this document and all relevant safety policies. Any staff handling substances must receive training on how to handle and store substances, as well as all procedures required by their designation such as recording samples in a log and securing samples in a safe.

4.3 Outdoor events:

Outdoor testing (such as music festivals) should be conducted whenever possible inside a tent or outdoor structure (i.e. picnic shelter). Ensure that adequate protection from the wind and other elements are in place prior to providing services. All other considerations (including workspace cleanliness, workflow, proper disposal procedures, and working free of distractions) must still be accounted for.

4.4 Legal considerations:

Drug checking services operate under federal and provincial regulations that relate to safe handling and storage of illegal substances to prevent diversion. All internal service and program level operational policies related to drug checking services must meet the requirements as laid out by these designations in addition to procedures to prevent exposure and contamination.

Overall Workplace Health and Safety

All organizations offering drug checking services are expected to adhere to their responsibility under the Workers Compensation Act and Occupational Health and Safety Regulation for ensuring health and safety of workers, ensuring adequate procedures are in place to eliminate or minimize risks. This includes any relevant local or organizational policies or procedures related to drug exposure response, crisis intervention, and other safety issues. Information on health and safety regulations and procedures can be found at WorkSafe BC.

To report a serious incident, contact WorkSafe BC's Prevention Information Line toll-free at 1.888.621.7233 (1.888.621.SAFE), 7 days a week, 24 hours a day.

If you have safety concerns, talk to your supervisor. Report all hazards and exposure incidents to your employer following employer procedures. For more information, refer to the WorkSafe BC contact us page: https://www.worksafebc.com/en/contact-us

Appendix A – Examples of Types of Safety Equipment and Cleaning Products

Gloves	 Required when conducting drug tests to prevent cross-contamination and exposure to potentially harmful substances/chemicals. Nitrile or polyurethane gloves should be used. 	Nitrile gloves
Goggles/safety glasses	 Protective eyewear such as goggles or safety glasses is recommended where there exists possibility of splash to the face. 	Safety Glasses
Medical mask	Masks are required when conducting drug tests to mitigate risk of drug exposure through face contact	Face masks
Protective Clothing	 Use of a lab coat or other overgarment is recommended to minimize the risk contaminants clinging to clothes and being transferred to other locations after a drug checking shift. Lab coats or overgarments should be placed in plastic bag when taken off site and laundered regularly. 	<u>Lab coat</u>
Stainless steel lab spatula	Used to load the sample onto diamond ATR crystal	<u>Spatula</u>
Isopropanol alcohol wipes	 Used to unload the sample and clean equipment to ensure any substance us dissolved before the next sample is tested to avoid cross contamination/potential exposure Stevens alcohol prep pads can be used for this purpose 	Stevens alcohol prep pads

Wash bottle	 Used to contain liquids required for drug checking procedures. Water should be in a wash bottle clearly marked to differentiate from staff drinking water bottles and other liquids. Isopropal alcohol or other liquids used for cleaning or testing procedures should be kept in appropriately marked bottles to distinguish from other liquids. 	Wash Bottle
Medical paper cups	 A small paper or plastic cup approximately one ounce in volume. Similar to fast food ketchup cups, disposed of after a single use to prevent cross-contamination. 	Paper cups
Task wipes (KimWipes)	 Lint-free, soft paper tissue used for drying scientific equipment. Task wipes are used to dry the alcohol residue after cleaning the spectrometer. 	<u>KimWipes</u>
Activated charcoal (Deterra Pouches) or kitty litter	 Approved to dispose of waste water from testing or left over drug sample (mix in water first) Example activated charcoal disposal methods include single use drug disposal pouches such as Deterra Pouches In the absence of biohazard waste bins or activated charcoal pouches, a container of kitty litter can be used to dispose drug-contaminated waste (e.g., test strip water). 	<u>Deterra</u> <u>Pouches</u>
Portable eye washing kit	 Designed to flush the eye in the event of accidental ocular-facial drug/ chemical exposure. Portable eye washing stations can be used for this purpose. 	Portable Eye Wash Station



References

British Columbia Centre for Disease Control. Assessing residual fentanyl on surfaces after cleaning with cleaning agents currently used in overdose prevention services and safe consumption sites (OPS/SCS) in British Columbia - Knowledge Update. 2019. Vancouver, BC: BC CDC.

British Columbia Centre for Disease Control. BCCDC knowledge update: Assessing risk of occupational fentanyl exposures. British Columbia Centre for Disease Control. 2018. Available at http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/ Other/20180802 BCCDC%20Knowledge%20Update Assessing%20risk%20of%20occupational%20 fentanyl%20exposures.pdf

British Columbia Centre for Disease Control. BC Overdose Prevention Services Guide -Requirements for Indoor Inhalation Overdose Prevention Services. BC Centre for Disease Control. 2019. Available at http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20 and%20Forms/Guidelines%20and%20Manuals/Epid/Other/BC%20Overdose%20Prevention%20 Services%20Guide Jan2019 .pdf

British Columbia Centre on Substance Use (BCCSU). Sample and Drug Checking Waste Disposal SOP. British Columbia Centre on Substance Use. 2021. Available at https://drugcheckingbc.ca/ wp-content/uploads/sites/2/2022/02/2022 02-Sample-Disposal-SOP.pdf

Canadian Centre for Occupational Health and Safety. WHMIS - Labels and Safety Data Sheets. 2022. Available at https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/labels.html#section-1-hdr

Chiang T, Leung V, Lem M. Assessment of Occupational Fentanyl Exposure in Overdose Prevention and Supervised Consumption Service Sites in British Columbia. BC Centre for Disease Control. 2018. Available at http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/ Other/BCCDC_occupational%20fentanyl%20exposure%20asessment%20report.pdf

Government of British Columbia. Workers Compensation Act, RSBC 1996, c. 492. Available at https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/296 97 03/

Health Safety & Prevention Team. Safe Work Procedure - Drug Checking. Northern Health Authority. 2022. Available at OurNH portal.

Leung V, Lem M. Fentanyl Surface Cleaning Assessment Report. BC Centre for Disease Control. 2018. Available at http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/ Epid/Other/BCCDC_fentanyl%20surface%20cleaning%20assessment%20report.pdf

Moss MJ, Warrick BJ, Nelson LS, et al. ACMT and AACT Position Statement: Preventing Occupational Fentanyl and Fentanyl Analog Exposure to Emergency Responders. Journal of Medical Toxicology. 2017, 13(4): 347-351. doi.org/10.1007/s13181-017-0628-2.

National Institute of Occupation Safety and Health. List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings. Centres for Disease Control and Prevention. 2016. Available at https://www.cdc.gov/niosh/docs/2016-161/default.html

Sage C, Meeson J., Aasen J., The Manual. Drug Checking Education Project. 2022. Available at https://dredproject.ca/

WorkSafeBC. Managing Risk: Assessing Risks. WorkSafeBC. n.d. Available at https://www.worksafebc.com/en/health-safety/create-manage/managing-risk/assessing-risks

WorkSafeBC. OHS Regulation Part 5: Chemical Agents and Biological Agents. WorkSafeBC. n.d. Available at https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchableohs-regulation/ohs-regulation/part-05-chemical-and-biological-substances.

WorkSafeBC. Searchable OHS Regulation & related materials. WorkSafeBC. N.d. Available at https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation

WorkSafeBC. OHS Regulation Part 30: Laboratories - Section 30.13. WorkSafeBC. 2011. Available at https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchableohs-regulation/ohs-regulation/part-30-laboratories#SectionNumber:30.13

WorkSafeBC. OHS Regulation Part 30: Laboratories - Section 30.18. WorkSafeBC.2011. Available at https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchableohs-regulation/ohs-regulation/part-30-laboratories#SectionNumber:30.18

WorkSafeBC. Best Practices for the Safe Handling of Hazardous Drugs. WorkSafeBC. 2015. Available at https://www.worksafebc.com/en/resources/health-safety/books-guides/bestpractices-safe-handling-hazardous-drugs?lang=en

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If you would like more information about drug checking services in BC, please visit:

www.drugcheckingbc.ca

or email drugchecking@bccsu.ubc.ca