Standard Operating Procedure

Access to Cardio-Pulmonary Suite

PC-SOP-CP-001-v04

Revision History

Version	Reason for Revision	Date
04	Updated version number, removed table of contents, removed definitions, removed introduction, removed emergency procedures, removed appendices, and updated content.	April 20, 2020

1. Overview

Equipment contained in the Cardio-Pulmonary Suite (C-P Suite) measures cardiac and pulmonary function. Users may perform a wide variety of education, community, and/or research related activities. The nature of the activities conducted may increase the risk of adverse events such as cardiac related issues; consequently, users of the area need to adhere to strict guidelines for use of equipment and testing procedures.

2. User Responsibilities

2.1 All users are responsible for:

2.1.1 Completing all training courses as directed by the current SOP and supervisor;

2.1.2 Booking equipment according to the procedure outlined in PC-POD-GA-001 "PERFORM Centre Booking System for Facilities and Equipment". Sufficient time should be booked for setting up equipment, running the experiment, sterilizing and cleaning the equipment and space, and storing equipment. Equipment should be placed back in its assigned location once usage is done;

2.1.3 Following all applicable safety rules and practices to assure the safe conduct and high quality of laboratory activities (e.g. using and wearing personal protective equipment, when applicable);

2.1.4 Reporting all potential hazards, unsafe conditions or safety issues to the supervisor. In the event that the supervisor is unavailable, report to

Environmental Health and Safety at extension 4877. Being familiar with the PERFORM emergency response procedures, as well as knowing evacuation routes from the C-P Suite and the location of emergency equipment such as fire extinguishers, first aid kit, AED, and emergency phones;

2.1.5 Completing incidental finding reports, when observed, according to PC-SOP-GA-011 "Guidelines for Management of Incidental Findings at PERFORM".

2.2 Principal Investigator/Project Lead responsibilities:

2.2.1 The principal investigator and/or project lead (as identified by the PI) is responsible for ensuring their team members, and all users in their protocols/projects have completed the proper training to be able to conduct activities in a safe manner.

3. Area-specific Training Requirements

3.1 Equipment Training

Specific training procedures and PERFORM Operating Documents (PODs) have been created for each piece of equipment. After being trained by the supervisor, user must demonstrate adequate ability to operate equipment prior to use.

3.2 Certifications

Specific user certifications may be required and will be dictated by the activity carried out and each user's level of involvement in these activities.

3.2.1 Training is available through Environmental Health and Safety Office training and/or PERFORM Centre and must be completed by all users prior to work initiation.

3.2.2 Workplace hazardous materials information system (WHMIS) training;

3.2.3 Biosafety and blood safety;

3.2.4 Emergency First Aid/CPR-C and AED training;

3.2.5 Canadian Society of Exercise Physiologist (CSEP) certified or equivalent, which will be requested based on the activity being conducted and the qualified personnel involved.

4. Health and Safety Measures

4.1 General Safety Rules

4.1.1 Food is not permitted;

4.1.2 Water is permitted in a closed container;

4.1.3 When appropriate, all users should wear personal protective equipment (PPE) (lab coats and gloves, long pants, closed toe footwear, or clothes that

provide maximum protection and cover most of the skin). PPE worn in the lab should not be worn in public areas kept in designated places at all times;

4.1.4 Wash hands before and upon completion of laboratory procedures;

4.1.5 Keep the assessment area clear from any cables, wires or any other material that can pose a risk of tripping;

4.1.6 All non-hazardous waste material shall be disposed of in a garbage container. Reusable materials no longer used must be disposed of following proper procedures;

4.1.7 The disposal of hazardous materials: biological waste, broken glassware, solvents waste, used hypodermic syringes and needles shall be done according to Concordia University Policy VPS-47.

4.1.8 In case of accidents and incidents, complete the Near Miss/Injury report https://www.concordia.ca/campus-life/safety/injury.html.

4.2 Laboratory equipment precautions

Any reconfiguration must be approved by area supervisor.

4.2.1 All compressed gases have potential health and safety hazards related to the chemical properties of the gas, as well as pressure hazards. Take precautions to protect personnel from these potential hazards.

4.2.1.1 All gas cylinders, empty or full, must be properly secured so they cannot be knocked over.

4.2.1.2 Compressed gas cylinders should be transported capped and chained on appropriate carts;

4.2.1.3 Always use the appropriate regulator for the gas being used.

NOTE: Failure of either the diaphragm or the regulator can occur unexpectedly. Be cautious when opening the main valve of a compressed gas cylinder.

5. Clearance for Physical Activity

All PERFORM participants are required to undergo an appropriate screening/clearance protocol for physical activity as per PC-POD-CF-001 "Clearance for Physical Activity at PERFORM" prior to commencement of equipment testing, educational, community, or research activities that require the individual to partake in physical activity, exercise testing, and/or exercise training. Use of this document is strongly recommended prior to conducting any physical activity that elevates the heart rate above resting. Should the PI/project lead decide against the use of PERFORM's screening protocol, it is their responsibility to use tools of equivalent caliber and, if applicable, specific to the medical condition of the participant. The supervisor will review with PI/project lead's chosen protocol to ensure participant safety. The level of risk, determined through the screening procedure, will determine the level of medical supervision and/or professional supervision required during physical activity.

6. State of Emergency Declared by Government

In the event that a state of emergency is declared by a public official, the C-P Suite will defer to public health, governmental declarations, professional licensing body regulations (CSEP/FKQ) and university communications and official recommendations. There can be several evolving phases, considerations for the CP Suite are as follows:

6.1 First phase: In-person activities and access with attention to a pending state of emergency

- Practice physical distancing if recommended, by keeping 2 meters from others.
- Wash hands frequently for 20 seconds.
- Additional frequency of cleaning and sanitation protocols to high-touch surfaces after each participant appointment (doorknobs, light switches, taps, handles, phones, equipment, etc.)
- Ensure communication to students, casual staff and participants in the C-P Suite of the above 3 steps
- Ensure communication with users, students, casual staff and participants prior to activities or appointments to screen for recent external travel and symptoms, advise as per public health and government recommendations

6. 2 Second phase: Suspension of in-person activities and access

- Check small refrigerator in cleaning room in the event that lab teams have items stored. Communicate with any lab teams that have items stored and coordinate an alternate storage solution.
- Unplug all metabolic carts, exercise equipment and MOXUS.
- Ensure that dirty laundry can be laundered and dried to avoid mold or mildew.
- Ensure participants for upcoming C-P Suite appointments are contacted by phone or email to communicate the suspension of in-person activities, and to reassure that contact and activities will resume when it is considered safe to do so.
- Activate call forwarding for working remotely, using the universities' guidelines.
- Use of VPN for working remotely, using the universities' guidelines and respecting guidelines from the FKQ to access digital dossiers, files, and to store items on the universities' password protected and secure network server.
- Use of technology and forms for communication, virtual appointments and meetings that respect confidentiality and security of information, using guidelines from governmental bodies, such as the *Ministère de la Santé et des Services sociaux* (MSSS), the university and from the FKQ.

6.3 Third phase: Access resumes with physical distancing

- Virtual in-person appointments may continue using the guidelines for technology and communication above.
- In-person activities defer to public health and governmental recommendations and university polices at all times and respect physical distancing, symptom screening, testing and reporting guidelines.

Should there be no access to the C-P suite, remote access to computers will be granted to research teams as required and/or data will be extracted by the C-P suite supervisor. Instructions on how to obtain remote access to the CP suite computers are in PC-SOP-IT-001 Remote Access to Systems at PERFORM.