

Standard Operating Procedure Emergency Procedures			
SOP Number:	SOP-EP-02	Category:	Administrative
Supersedes:	SOP-EP-01.1	Original Date:	December 1, 2017
		Revised:	May 1, 2019
		Pages	1 of 33
Issued by: Director, Health Sciences Research			

1.0 POLICY

It is the policy of the W.J. Henderson Centre for Patient-Oriented Research (WJHCPOR) to maintain a safe environment for all users, research participants, visitors, volunteers, contractors and Kingston Health Sciences Centre (KHSC) employees that promotes comprehensive life safety and injury prevention, emergency preparedness, security services, and environmental management programs. KHSC's Protection Services Department is responsible for the overall emergency management within the hospital. Kingston General Health Research Institute (KGHRI) will enforce emergency procedure best practices to ensure health, safety, and environmental protection for all users of the WJHCPOR.

2.0 PURPOSE

The purpose of this standard operating procedure (SOP) is to provide information to users of the WJHCPOR that will save lives during emergencies or disasters, and hasten the resumption of normal operations within the WJHCPOR after these events. Prior planning and preparedness is critical due to the nature of situations that occur at any time with little or no warning. This SOP outlines procedures to be followed by all users of WJHCPOR when responding to, and recovering from, a variety of emergency and disaster situations. These events may include fires, medical emergencies, hazardous spills, evacuation, hostile encounters, bomb threats, or catastrophes.

3.0 DEFINITIONS

Bomb - any device, which by design produces an explosion, or due to additional incendiary, toxic, or radiological substances, some dangerous environmental condition upon activation.

CBRN - is an acronym for **C**hemical, **B**iological, **R**adiological & **N**uclear event.

Decontamination - is the process of cleansing the human body to remove contamination, or the possibility (or fear) of contamination, by hazardous materials.

Disaster - A sudden natural or man-made event that causes widespread destruction and distress.

Disaster Management - requires the allocation of limited resources for the greatest good of the greatest number of casualties.

Emergency - a serious, unexpected, and often dangerous situation requiring immediate action.

Flood - a very large amount of water that has overflowed from a source such as a river or a broken pipe onto a previously dry area. An accumulation of fluid that wets fixed porous materials such as drywall, carpeting, ceiling tiles, wooden furniture, etc. and/or covers a water-impervious area that will require more than 10 minutes removing the water.

Hazard - a danger or risk that has the capability of producing adverse effects to the health, well-being and safety of an individual.

Hazardous Material - any substance or compound that has the capability of producing adverse effects to the health, well-being and safety of an individual.

Hazardous Spill - the escape from containment of any substance, which by its nature presents a threat to life or safety of the person or the environment through contact, absorption, inhalation or ingestion or a secondary threat of fire or explosion effects to the health, well-being and safety of an individual.

Man-Made Disaster - resulting from man-made hazards (threats having an element of human intent, negligence, or error) or involving a failure of a man-made system. May be the result of sociological hazard (crime, civil disorder, terrorism), technological hazard (industrial, structural, fire, hazardous material), or transportation hazard (aviation, rail, road).

Mass Casualty - any event resulting in number of victims large enough to disrupt the normal course of emergency and health care services.

Natural Disaster - is the effect of a natural hazard (i.e. flood, tornado, hurricane, volcanic eruption, earthquake, or landslide). It leads to financial, environmental or human losses depending on the vulnerability of the affected population.

Remediation - general clean up, repair, or replacement of building components after water intrusion.

Water Intrusion - entry of environmental (rain), potable (broken water pipe), damaged infrastructure systems (HVAC or sprinkler) or sewage (pipe break or backup) into a building's interior spaces, requiring actions beyond simple removal.

4.0 RESPONSIBILITY

Users are responsible for:

- Familiarizing themselves with all of KHSC's emergency procedures while conducting research within the WJHCPOR.

KGHRI is responsible for:

- Training all users of the WJHCPOR on all of KHSC's emergency procedures.
- Ensuring KHSC's complete emergency protocol plans are posted within WJHCPOR for users to access. Emergency protocol plans are located in reception, Clinical Investigation Unit, and along the east and west corridors.

5.0 PROCEDURES

- When calling an emergency code, dial KHSC-KGH campus extension **4444** and speak with one of the switchboard operators.
- Indicate your name and title, the code (i.e. CODE RED) and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
- A list of hospital CODES is below:

CODE RED: Fire
CODE GREEN: Evacuation
CODE ORANGE: External Disaster
CODE YELLOW: Missing Person
CODE AMBER: Missing Abducted Child Infant
CODE 11: Inmate Escape
CODE BLACK: Bomb Threat/Suspicious Package
CODE BROWN: Hazardous Spill
CODE GREY: External Air Exclusion & Severe Weather
CODE 99: Medical Emergency
CODE BLUE: Adult Cardiac Arrest
CODE PINK: Paediatric Cardiac Arrest
CODE WHITE: Violent/Behavioral Situation
CODE PURPLE: Hostage Situation
CODE SILVER: Lockdown for Active Shooter/Dangerous Weapon Situation
Contingency Plans: Loss of Power, Loss of Potable Water, Loss of Communications, Loss of Information Technology, Loss of Heat & Steam, Flood Contingency, or Loss of Medical Gases

- **CODE RED: Fire (30 tones per minute (slow tone))**
 - o Upon discovery of smoke or fire follow the principals of **R.E.A.C.T.:**
 - **R**emove individuals from immediate danger. Remove individuals adjacent and directly across from the smoke/fire.
 - **E**nsure containment. Close windows and doors in and near affected area to confine smoke and fire.
 - **A**ctivate the fire alarm using the nearest pull station.

- Call switchboard (ext. 4444). Indicate your name and title, CODE RED, and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
- Try to extinguish fire if within your capacity or evacuate all individuals in the affected area to safety beyond the nearest fire separation doors.
- o If you hear a CODE RED being called in areas that are above, below or adjacent to the WJHCPOR (Connell 4) stay put until the CODE RED is called in the WJHCPOR or you see smoke/fire in the WJHCPOR.
- o Fire Classifications and Extinguishers:
 - Class A (wood, textiles, rubbish, linens, paper, etc.): pressurized water or dry chemical extinguishers used.
 - Class B (grease, ether, alcohol, oil, paint, acetone, etc.): CO₂ or a dry chemical extinguishers used.
 - Class C (toaster, microwave, anything energized electrically): CO₂ or a dry chemical extinguisher used.
 - Class K (grease, cooking oils, animal/vegetable fats): wet chemical extinguisher used.
- o If you feel comfortable using a fire extinguisher, remember **P.A.S.S.**:
 - Pull the pin.
 - Aim at the base of the fire.
 - Squeeze the top handle of lever.
 - Sweep from side to side.
- o When using an extinguisher, remember the following:
 - Make sure you have an exit.
 - Make sure that there is someone else with you.
 - Never put your back to the fire.
 - Only use an extinguisher if you have been properly trained and the fire is small and manageable
- o Ensure that all patients, research participants, visitors, volunteers, contractors, KHSC employees, and other users of the WJHCPOR are aware of the fire alarm and provide instructions to evacuate the area.
- o **DO NOT** use elevators.

- o Evacuate immediately through the nearest **FIRE EXIT**. Fire exits are located outside the Clinical Investigation Unit (Room 2-4-021-0) on the south wall (**EXIT A**) and outside the staff and main entrance doors near reception of the WJHCPOR on the north wall (**EXIT B**). If using EXIT A, you will head down the stairs and go out the basement level door onto King Street. If using the main or staff entrances of the WJHCPOR, use the Connell 4 stairs (directly across from elevators) and head down the stairs and go out through the ground level door near Emergency Department.
- o **DO NOT** re-enter the hospital until KHSC's Protection Services gives the all clear. Keep all entrances/exits clear to facilitate emergency personnel. A **CODE RED ALL CLEAR** will be announced to advise individuals that it is safe to return to their area. In the event of a total hospital evacuation (CODE GREEN), returning may be staged to minimize impact to patient care.
- o Individuals with mobility restrictions should be assisted safely, if possible. If you are not able to assist individuals with mobility restrictions, please notify emergency personnel **immediately** once you have vacated the area.
- o See Appendix A for a more detailed emergency response CODE RED (Fire) Plan.
- **CODE GREEN: Evacuation (3 quick tones then a pause)**
 - o CODE GREEN is used when a pre-existing emergency has expanded beyond the ability to ensure the safety of individuals within WJHCPOR and/or KHSC and it is necessary to relocate individuals to another part of KHSC or external location. Activation of CODE GREEN is generally a last resort response when all other response measures have been exhausted.
 - o Stages of Evacuation:
 - Limited Evacuation: evacuation of the immediate area within the hazard to a designated/alternate safe area horizontally on the same level if possible or vertically (downward) if not. Notification of a limited evacuation will come from the individual discovering the hazard.
 - Extended Evacuation: evacuation involves the large scale removal of all individuals from an entire level or wing containing the initial hazard to another location within the hospital. Notification of an extended evacuation will come from a higher authority (i.e. Protection Services, Fire Department, President & CEO or delegate).
 - Total Evacuation: evacuation involves the removal of all individuals from a wing or the entire hospital to external locations (outside the hospital). Notification of a total evacuation will come from a higher authority (i.e. Protection Services, Fire Department, President & CEO or delegate).
 - o CODE GREEN will be announced in one of three ways: CODE GREEN CAUTIONARY (prepare to evacuate), CODE GREEN STAT (start evacuation right away in a designated area of the hospital), and CODE GREEN KHSC (start evacuation of all individuals in the hospital). If CODE GREEN STAT is called for Connell 4 (WJHCPOR), all individuals will go to the primary meeting place beyond fire separation doors in an adjacent wing. If CODE GREEN KGH is called for

Connell 4 (WJHCPOR), all individuals will go to the secondary meeting place outside of KHSC at ground level.

- o Meeting Places: the WJHCPOR has established both primary and secondary meeting places. The **primary** meeting place is in **KIDD 4 near the nurse's station**. The **secondary** meeting place is the **bottom of the Emergency Department ramp** (on King Street).
- o When evacuating patients, research participants, visitors, volunteers, contractors, KHSC employees or other users, they will be removed in the following order: (1) individuals in immediate threatened area(s); (2) individuals who are ambulatory; (3) individuals who are semi-ambulatory; (4) who are non-ambulatory; and (5) individuals who are aggressive or non-cooperative. The emergency response crew (i.e. Protection Services, Fire Department, etc.) will need to be notified of the location of individuals that cannot be safely evacuated due to extreme limitation on movement.
- o The following are various techniques that can be used to evacuate non-ambulatory patients:
 - Swing Carry (see figure below): two individuals grasp each other's arms and the individual with mobility restrictions sits on the arms and hangs onto the shoulders.



- Extremity Carry (see figure below): two individuals grasp the individual with mobility restrictions, one by the arms under the arm pits, the other by the legs at the bend of the knees.



- o A **CODE GREEN ALL CLEAR** will be announced to advise individuals that it is safe to return to their area. In the event of a total evacuation, returning may be staged to minimize impact to patient care.
- o See Appendix B for a more detailed emergency response CODE GREEN (Evacuation) Plan.

- **CODE ORANGE: External Disaster**

- o CODE ORANGE is used for the management of a casualty influx through KHSC's Emergency Department, as a result of some external disaster that exceeds the normal capacity of KHSC's Emergency Department.
- o Notification of an external disaster event involving mass casualties will most likely come from a confirmed public authority (police, fire, emergency medical services). Depending on the extent of KHSC's involvement in a disaster, a graduated system of response will be used:
 - Stage 1 (alert and preparation stage): potential involvement of KHSC. At this stage, personnel are assessing resources, contacting key personnel and preparing for the activation of a limited (Stage 2) or extended (Stage 3) response.
 - Stage 2 (limited response): current in-hospital resources and staff, or possibly a limited number of additional staff, will be used to manage the influx of casualty patients. Stage 2 may or may not be preceded by Stage 1. Stage 2 may or may not involve decontamination process.
 - Stage 3 (extended response): where the hospital is required to make use of all hospital resources, along with additional staff. The number of urgent or emergent casualties exceeds the capacity of KHSC's Emergency Department. At this stage, other facilities within and external to KHSC will be used to facilitate and temporarily relocate patients. Stage 3 may or may not be preceded by Stage 1 or Stage 2. Stage 3 may or may not include the decontamination process.
- o During CODE ORANGE Stage 2 or Stage 3, functional areas within KHSC will be activated to assist in the isolation of KHSC's Emergency Department in order for this department to deal with the casualties coming in. Casualties will be triaged upon arrival.
- o CODE ORANGE CBRN: need for decontamination identified. Staff **MUST** wear personal protective equipment and use decontamination equipment. Internal and external set up occurs by a decontamination response team, which includes 15 CBRN trained staff, including Physicians, Nurses, Protection Services and Maintenance. Set-up includes three zones:
 - Hot Zone: area outside of the decontamination set-up area that casualties will gather in prior to decontamination.
 - Warm Zone: area where patients will be decontaminated prior to entry into the KHSC's Emergency Department.
 - Cold Zone: inside KHSC's Emergency Department. It is imperative that KHSC's Emergency Department remain the Cold Zone and **no contaminates enter**.
- o User of WJHCPOR should continue with normal duties unless specifically involved in the disaster response. **DO NOT** leave the WJHCPOR unless authorized by your direct supervisor. Telephones will be restricted to necessary use only and should not be used for nonessential calls, either within the hospital or to the outside.

- o A **CODE ORANGE ALL CLEAR** will be announced to advise individuals once normal operations have resumed.
- o See Appendix C for a more detailed emergency response CODE ORANGE (External Disaster) Plan.
- **CODE YELLOW: Missing Person**
 - o CODE YELLOW is called when a patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR is discovered missing from their designated area without proper leave, or has failed to return from leave.
 - o All users of the WJHCPOR share in the responsibility of preventing patients, research participants, visitors, volunteers, contractors, KHSC employees or users of the WJHCPOR from going missing and to return such individuals to their designated areas within the WJHCPOR or other areas of KHSC should they be discovered missing.
 - o If the patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR is not visible within the WJHCPOR, immediately conduct a preliminary search of the immediate and adjacent areas to WJHCPOR, quickly checking all rooms in those areas.
 - o If the missing patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR is not found, call the switchboard (ext. 0) to page the patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR overhead to return to the WJHCPOR.
 - o If the patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR does not return, or there is a more urgent need to locate the patient, research participant, visitor, volunteer, contractor, KHSC employee or user of the WJHCPOR, call the switchboard (ext. 4444). Indicate your name and title, CODE YELLOW, and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
 - o If you hear a CODE YELLOW being called in your area (WJHCPOR) please provide assistance in the search for the missing individual(s), if possible.
 - o If you hear a CODE YELLOW being called in other areas of KHSC, look around your area for anyone that looks lost, confused or doesn't belong, who could potentially be the missing person.
 - o A **CODE YELLOW ALL CLEAR** will be announced to advise individuals the missing person has been found.
 - o See Appendix D for a more detailed emergency response CODE YELLOW (Missing Person) Plan.

- **CODE AMBER: Missing Abducted Child Infant**

- o CODE AMBER is called when an infant or child is missing or you witness an abduction. If an infant/child is missing it is assumed abducted until proven otherwise.
- o Call the switchboard (ext. 4444). Indicate your name and title, CODE AMBER, your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), and child's description (age, sex, hair colour).
- o If you hear a CODE AMBER being called all users of the WJHCPOR **MUST** conduct an immediate search of the WJHCPOR for the missing infant/child.
- o There is no guarantee that an infant/child abductor will fit this description but typically they fit the following operation:
 - Female of "childbearing" age (12 to 50), often overweight;
 - Usually compulsive; frequently relies on manipulation, lying, and deception to gain access;
 - Usually states that she has lost a baby or is incapable of having one;
 - Often married or cohabitating; companion's desire for a child or the abductor's desire to provide her companion with "his" child may be the motivation for the abduction;
 - Frequently lives or is familiar with the community where the abduction takes place;
 - Usually visits the Neonatal Intensive Care Unit or Obstetrical units at more than one healthcare facility prior to the abduction; asks detailed questions about procedures and the maternity floor layout;
 - Frequently uses a fire exit stairwell for her escape; and may also try to abduct from the home setting;
 - Usually plans the abduction, but does not necessarily target a specific infant; frequently seizes any opportunity present;
 - Frequently impersonates a nurse or other allied healthcare personnel;
 - Frequently becomes familiar with healthcare staff, staff work routines, and victim parents;
 - Demonstrates a capability to provide "good" care to the baby once the abduction occurs.
- o If a user of the WJHCPOR is asked to participate on the search committee, you will be assigned a search kit containing maps, checklists, master keys and a flashlight.

- o If the infant/child abductor is visible, activate the **CODE PURPLE (Hostage Situation)** emergency procedure.
- o A **CODE AMBER ALL CLEAR** will be announced to advise individuals the missing infant/child has been found.
- o See Appendix E for a more detailed emergency response CODE AMBER (Missing Abducted Child Infant) Plan.
- **CODE 11: Inmate Escape**
 - o CODE 11 is called when an inmate has been discovered to have escaped from the lawful custody of Police or Correctional Services while a patient or research participant at KHSC.
 - o Call the switchboard (ext. 4444). Indicate your name and title, CODE 11, your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), the last known location of the inmate, physical description of the inmate, information if any weapons involved, and if the inmate is Federal or Provincial (if known).
 - o If you hear a CODE 11 being called all users of the WJHCPOR **MUST** conduct an immediate (visual only) search of the WJHCPOR for the escaped inmate. Remain calm and isolate and contain the area (shut and lock doors) so as not to interfere with the search and to preserve any evidence. Instruct patients, research participants, visitors, volunteers, contractors, KHSC employees, and other users of the WJHCPOR to remain in their rooms with the doors closed, wherever possible.
 - o If the inmate is visible in your area **DO NOT** physically interfere with him/her. Notify switchboard **immediately**.
 - o If the inmate is visible and has a hostage, initiate the **CODE PURPLE (Hostage Situation)** emergency procedure.

If the inmate is visible and has a gun or dangerous weapon, initiate the **CODE SILVER (Lockdown for Active Shooter/Dangerous Weapon Situation)** emergency procedure.
 - o A **CODE 11 ALL CLEAR** will be announced to advise individuals the escaped inmate has been found/captured.
 - o See Appendix F for a more detailed emergency response CODE 11 (Inmate Escape) Plan.
- **CODE BLACK: Bomb Threat/Suspicious Package**
 - o CODE BLACK is when a bomb threat to the facility is received by any means, or a suspicious package is located on the premises.
 - o Call the switchboard (ext. 4444) if you receive, by way of telephone, fax, e-mail, written/printed or in person, notice that a "Bomb Threat" exists and advise the switchboard operator of the details.

- o Call the switchboard (ext. 4444) if a package is received which contains or is believed to contain an explosive device.
- o A bomb threat may be non-specific (caller does not specify a location and threatens the entire KHSC) or specific (caller has intimate knowledge of device location and threatens a specific area of the KHSC).
- o Bomb threats are most commonly made for any of the following reasons: (1) knows or believes an explosive device has been or will be planted and wishes to minimize personal injury and/or property damage; (2) the caller is "attention seeking" and wishes to disrupt normal activities by creating anxiety and panic; or (3) caller is attempting to gain a perceived negotiating advantage (extortion or political terrorism). In all cases, a bomb threat must be treated seriously.
- o In order for Police to obtain valuable forensic evidence:
 - Handle any written threat as little as possible. If it is necessary to handle the item (letter, note), hold it near the centre; latent fingerprints are usually found at the edges of paper documents;
 - Place the item (letter, note) into a plastic bag or a paper envelope, if at all possible;
 - Do not touch anything in the room where the threat was made from;
 - Do not use the telephone in the room where the threat was made from;
 - Do not allow anyone other than the responding Police to enter the room where the threat was found or made from;
 - Anyone found in or near the area where the threat was found or made from should be requested to speak to the Police.
- o The bomb threat questionnaire is used to record the details of a telephoned bomb threat. The questionnaire is located in Appendix G (detailed emergency response CODE BLACK (Bomb Threat) Plan).
- o For an organization as large as KHSC, it is neither practical nor recommended to initiate extended or total evacuation procedures (CODE GREEN), until the threat has been investigated. If a CODE GREEN is required, you will hear the announcement. Follow CODE GREEN emergency protocol if announced.
- o If you hear a CODE BLACK announcement, remain calm and instruct patients, research participants, visitors, volunteers, contractors, KHSC employees or users of the WJHCPOR to remain in or return to their rooms with the doors closed, wherever possible. Do not divulge any information surrounding the crisis to patients, research participants, visitors, volunteers or contractors.
- o After the decision not to evacuate has been made, it is the expectation that all users of the WJHCPOR and KHSC employees will be prepared to participate in a comprehensive search. Police do not have the manpower, and are unfamiliar with

the area, to do the search. Statistics reveal most bomb threats are “attention seeking” and bombings that have occurred were not preceded by a warning.

- o Look for items not consistent with area equipment and décor. Devices may not always look foreign to the environment. Do not spend time on locked areas that are known to have restricted access. Very carefully check garbage cans, laundry bags and any other receptacles, **DO NOT** open lids or physically disturb the items. Check any wheeled equipment such as carts, stretchers in area; try and determine its time of arrival and reason for being in the area. Mark rooms/areas which have already been searched (i.e. sticky notes, labels) to prevent duplication of searches.
- o Search areas in layers. First search layer is floor to waist. Second search layer is waist to chin/top of the head. Third search layer is chin/top of head to ceiling. Fourth search layer is areas above false ceiling.
- o **DO NOT** handle any items about which there are doubts; isolate them and contact the switchboard operator (ext. 4444) from an adjacent land-line telephone. Do not touch or attempt to handle the object. **DO NOT** activate the fire alarm. Radios, pagers, cellular phones **MUST NOT** be used.
- o If a bomb detonates and there are mass casualties, CODE ORANGE will be implemented and CODE ORANGE emergency protocol will be implemented.
- o A **CODE BLACK ALL CLEAR** will be announced to advise individuals the bomb threat is resolved. Advise patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the crisis is over.
- o See Appendix G for a more detailed emergency response CODE BLACK (Bomb Threat/Suspicious Package) Plan.
- **CODE BROWN: Hazardous Spill**
 - o Anyone working with chemical, radioactive or biological materials **MUST** take all precautions necessary to prevent/reduce the risk of a spill.
 - o CODE BROWN is announced for any hazardous spill. Only spills considered major, or unknown, will be announced overhead on the intercom by the switchboard operator. Anyone that is aware of a major chemical, radioactive or biological or unknown spill is authorized to activate a CODE BROWN. The fire alarm will be activated to shut down the ventilation systems.
 - o For major spills **initiate a limited evacuation of the immediately threatened area, pull the nearest fire alarm pull station, and call the switchboard (ext. 4444).** Indicate your name and title, your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), and the type of spill. The switchboard operator will call KHSC's Maintenance Department and KHSC's Protection Services who will need to turn up/off/down ventilation systems and arrive at the area. Let the switchboard operator and KHSC's Maintenance Department know if there is a particular aerosol hazard.
 - o Move to a safe place near the area and await the arrival of KHSC's Protection Services and the Fire Department and provide them with MSDS information on the chemical spilled.

- o Major spills are: (1) hazardous chemical or biological spill, which is physically **equal to or greater than 4 litres**; (2) radiological spill of any physical size, which displays a radioactivity level **greater than 5 times the annual limit on intake (5 ALI)**; or (3) genuine threat to persons or environment by virtue of airborne contamination, fire, explosion and/or highly infectious agents. Greater number of staff/equipment required for isolation and clean up. Limited evacuation likely; extended evacuation possible. Probable Hazardous Materials (HAZMAT) team or Fire Department involvement.
- o Unknown spill: when it is unknown what the substance is, or how harmful it is to people in the area, the spill will be considered a major spill until proven otherwise. **WHEN IN DOUBT, A SPILL SHOULD BE CONSIDERED MAJOR.**
- o For all major spills (report **immediately** to their supervisor/manager, the designated KGHRI staff member, and the appropriate institutional occupational health, safety and wellness department. KHSC employees need to complete a KHSC Employee Incident Report through the online Safe Reporting tool for workplace incidents. Queen's University Faculty, employees, students and trainees need to complete a Queen's Incident Report located on Queen's Environmental Health & Safety website.
- o Minor spills are (1) hazardous chemical or biological spill, which is physically **less than 4 litres**; or (2) radiological spill of any physical size, which displays a radioactivity level less than 5 times the annual limit on intake (5 ALI). Easily contained and minimal staff/equipment required for isolation and clean up. Evacuation unlikely or very limited.
- o For minor spills, CODE BROWN is not necessary. Isolate and contain the spill by damming and closing doors. Clean up the spill, according to departmental protocol or MSDS instructions.
- o Cleaning up of all minor spills. If needed, contact KHSC's Environmental Services (ext. 2309) to obtain a spill kit for containment. KHSC's Environmental Services may act in a supportive role by either assisting in containing the spill or cleaning the area after the initial cleanup process has been completed. If the spill exceeds the scope of the user's experience, training, or willingness to respond, the user **MUST** notify **immediately** their manager/supervisor and the designated KGHRI staff member who will assist.
- o For minor spills users **MUST** complete a **Spill Incident Report Form** that is available in the binder on the shelf above the centrifuges. Completed forms must be submitted to the designated KGHRI staff member within twenty-four (24) hours of the spill.
- o If chemical or biological agent(s) has been spilled on a person's skin: (1) move the person to the nearest shower, they should remove all clothing and shower for 15 minutes with soap and water; and (2) the person needs to change into uncontaminated clothing and report to KHSC's Emergency Department immediately.

- o If chemical or biological agent has been spilled in a person's eyes, or has been ingested or inhaled, review first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes) and have that person report to KHSC's Emergency Department immediately. See "Emergency Eyewash Safety" SOP.
- o For mercury spills (less than 2 tbsp): (1) turn off fans and room air conditioners; (2) close the door to the affected area and restrict access to required personnel only; (3) contact KHSC's Environmental Services (ext. 2309) and request mercury spill kit; (4) contact KHSC's Maintenance (ext. 4030) of the mercury spill and request their assistance in controlling and cleaning up the spill and shutting down HVAC to the area of the spill; and (5) notify Protection Services (ext. 4142) and Occupational Health, Safety, & Wellness (ext. 4389).
- o If the mercury beads have made contact with a person's skin or eyes, immediately implement first aid measures (i.e. copious amounts of water to the eyes for a minimum of 15 minutes). See "Emergency Eyewash Safety" SOP. Should treatment beyond first aid only and/or consultation be required, Queen's University Faculty, employees, students and trainees may contact Walsh and Associates Occupational Health Services (at their Belleville number) during business hours if they need advice about whether a visit to an Emergency department is required, and to arrange follow-up for post exposure testing. If they cannot reach Walsh and Associates immediately then they should go directly to KHSC's Emergency Department (KGH campus). KHSC employees, when seeking emergency assistance, need to go to KHSC's Occupational Health, Safety & Wellness (OHSW) first. If OHSW is closed, visit KHSC's Emergency Department (KGH campus).
- o For mercury spills (greater than 2 tbsp): (1) wash hands and other exposed areas with soap and water immediately; (2) If clothing is contaminated, remove clothing as soon as possible and place in a plastic bag; shower with soap and water; (3) notify switchboard operator (ext. 4444); (4) turn off fans and room air conditioners; and (5) notify Protection Services (ext. 4142) and Occupational Health, Safety, & Wellness (ext. 4389).
- o For sewage spills (less than 4 Litres), call KHSC's Protection Services (ext. 4142). Indicate you name and title, your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), and give details regarding sewage spill or undetermined fluid leak. If assistance is required to contain the spill, call KHSC's Environmental Service (ext.2309) to assist and if needed, request a spill kit for containment.
- o If the sewage has made contact with a person's skin or eyes or has been ingested or inhaled, immediately implement first aid measures as necessary (i.e. copious amounts of water to the eyes for a minimum of 15 minutes). See "Emergency Eyewash Safety" SOP. Wash hands and other exposed areas with soap and water immediately. If clothing is contaminated, remove clothing as soon as possible and place in a plastic bag; shower with soap and water. Should treatment beyond first aid only and/or consultation be required, Queen's University Faculty, employees, students and trainees may contact Walsh and Associates Occupational Health Services (at their Belleville number) during business hours if they need advice about whether a visit to an Emergency department is required, and to arrange follow-up for post exposure testing. If they cannot reach Walsh and Associates immediately then they should go directly to KHSC's Emergency

Department (KGH campus). KHSC employees, when seeking emergency assistance, need to go to KHSC's Occupational Health, Safety & Wellness (OHSW) first. If OHSW is closed, visit KHSC's Emergency Department (KGH campus).

- o For sewage spills (greater than 4 Litres): (1) call switchboard operator (ext. 4444); (2) wash hands and other exposed areas with soap and water immediately; (3) If clothing is contaminated put on a N95 mask and remove clothing as soon as possible and place in a plastic bag; shower with soap and water; (4) turn off fans and room air conditioners; and (5) notify Protection Services (ext. 4142) and Occupational Health, Safety, & Wellness (ext. 4389). In the case of full body contamination, report to KHSC's Emergency Department for showering and decontamination.
- o For radiological spills (any size but displays less than 5 ALI), CODE BROWN is not necessary. Call KHSC's Environmental Service (ext.2309) to assist and request a spill kit for containment. Notify KHSC's Radiation Protection Officer (ext. 4536 or 6819) during normal business hours or Nuclear Medicine Technologist (613-536-7583) after hours. Ensure that decontamination procedures are followed.
- o Look for injured persons in the affected area and remove them to fresh air if possible to do so without becoming a casualty, activate CODE 99 (Medical Emergency) if required. Isolate and contain the spill by damming and closing doors. Initiate a limited evacuation of the contaminated area of unnecessary, uncontaminated staff. If qualified, measure the level of radioactivity in the spill.
- o For radiological spills (greater than 5 ALI), call switchboard operator (ext. 4444). Indicate you name and title, your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), and nature of emergency. Notify KHSC's Radiation Protection Officer (ext. 4536 or 6819) during normal business hours or Nuclear Medicine Technologist (613-536-7583) after hours. Move to a safe place near the area and await the arrival of the KHSC's Radiation Protection Officer or Nuclear Medicine Technologist.
- o If radioactive material has made contact with a person's skin or eyes or has been ingested or inhaled, immediately implement first aid measures as necessary (i.e. copious amounts of water to the eyes for a minimum of 15 minutes). See "Emergency Eyewash Safety" SOP. Have the person report to KHSC's Emergency Department **immediately**.
- o To learn more about spill control for CODE BROWN, please refer to "Spill Control Procedures SOP".
- o A **CODE BROWN ALL CLEAR** will be announced to advise individuals the major spill is resolved. Advise patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the crisis is over.
- o See Appendix H for a more detailed emergency response CODE BROWN (Hazardous Spill) Plan.

- **CODE GREY: External Air Exclusion & Severe Weather**

- o CODE GREY is activated when KHSC receives notification of an external air emergency or severe weather emergency from an appropriate authority (i.e. Police, Fire, etc.). External air exclusion or "CODE GREY procedures are designed to restrict the entry into the building of external contaminated air, by shutting down air exchange systems. This will permit individual to exist in a volume of non-affected air contained within KHSC.
- o In the event that heavier-than-air, flammable, explosive gases have entered the municipal sewer system and entered the building through the drains, CODE GREEN (evacuation of the building) may be mandatory.
- o If you hear a CODE GREY on the announcement, close all external windows and doors, shut off all fans and air conditioners, clear corridors of unnecessary items, and move all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR into rooms. **DO NOT** leave KHSC through the exterior doors. Stay indoors until CODE GREY is clear. Be prepared to evacuate (follow CODE GREEN emergency protocol). If evacuation is required, turn off all equipment. Ensure everyone has vacated the WJHCPOR.
- o Tornado watch: Conditions are conducive to the development of tornadoes in and close to the area. **CODE GREY–Severe Weather Cautionary.**
- o In the event of a tornado watch:
 - Return to your area of work.
 - Avoid using elevators.
 - Inform patients/research participants of weather risk and request they remain in the WJHCPOR/KHSC.
 - Clear the corridors of obstructions.
 - Turn off all external air conditioners.
 - Await further instructions.
- o Tornado warning: A tornado has been sighted by spotters or indicated on radar and is occurring or imminent in the warning area. **CODE GREY–Severe Weather Stat** applies.
- o In the event of a tornado warning:
 - Draw all shades and close all drapes (and windows if time permits) and close all doors to protect against shattering glass/airborne objects. Clear off windowsills to remove any items that could become airborne. Flying debris is the greatest danger from tornadoes.
 - **DO NOT** open windows. Opening windows increases the danger.
 - Do not use the elevators.

- Lower all research beds to the lowest position, move the bed as far away from the window as possible, and cover patients/research participants with a blanket who are non-ambulatory.
- Move as many ambulatory patients, research participants, visitors, volunteers, contractors, KHSC employees and other users of WJHCPOR into a windowless corridor, if possible. Advise them to crouch as low as possible and cover their head and neck with a blanket (or their hands if no blankets are available).
- Evacuate large-span, flat roofed areas or areas encased with windows (i.e. café, main entrance).
- o Be prepared to implement CODE ORANGE and/or CODE GREEN emergency protocol.
- o A **CODE GREY ALL CLEAR** will be announced to advise individuals the crisis is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that crisis no longer exists.
- o See Appendix I for a more detailed emergency response CODE GREY (External Air Exclusion & Severe Weather) Plan.
- **CODE 99: Medical Emergency**
 - o CODE 99 is to be used if one of your patients/research participants is in need of emergent medical attention inside KHSC (KGH campus), other than due to cardiac arrest. If the patient/research participant is talking or is unconscious (but has a pulse and is breathing), call “CODE 99”. If the patient/research participant is unconscious and **DOES NOT** have a pulse/not breathing, call “CODE BLUE” (adult) or “CODE PINK” (infant/child). If your patient/research participant is outside of the hospital (i.e. on the sidewalk), you need to call “911”.
 - o Call switchboard operator (ext. 4444). Indicate your name and title, CODE 99, and your location in the hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
 - o For CODE 99, KHSC’s (KGH campus) RACE team will arrive with the crash cart and assume command. Ensure your patient/research participant is comfortable until help arrives. To learn more about CODE 99, please refer to “Calling Codes SOP”.
 - o If your research participant goes into cardiac arrest (no pulse, stops breathing), follow the CODE BLUE (adult) or CODE PINK (infant/child) action plan below.
 - o See Appendix J for a more detailed emergency response CODE 99 (Medical Emergency) Plan.

- **CODE BLUE: Adult Cardiac Arrest**

- o CODE BLUE is to be called when an adult research participant is suffering from a cardiac arrest. A cardiac arrest is defined when a person is not breathing or when a pulse cannot be felt.
- o Remember your three C's: **C**all for help, start cardiopulmonary resuscitation (**C**PR), and get the crash **C**art. To learn more about CODE BLUE, please refer to "Calling Codes SOP".
- o Call switchboard operator (ext. 4444). Indicate your name and title, CODE BLUE, and your location in the hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
- o If you are trained, start CPR. Remember your ABC's: airway, breathing, and circulation.
- o Send someone to grab the crash cart and return with it to your location. The crash cart is located on **KIDD 4 next to the nurse's station**. The Adult Cardiac Arrest Team arriving will need the crash cart.
- o In general, for research areas located in/near a clinical area, the crash cart is located on the clinic floor usually next to a nurse's station. For research areas located in a non-clinical area, you need to grab the automatic external defibrillator (AED) on a hallway wall closest to your location. It is recommended that users of WJHCPOR familiarize themselves as to the location of the closest crash cart or AED to their research location within the hospital in case of a future emergency.
- o See Appendix K for a more detailed emergency response CODE BLUE (Adult Cardiac Arrest) Plan.

- **CODE PINK: Paediatric Cardiac Arrest**

- o CODE PINK is to be called when an infant or child research participant is suffering from a cardiac arrest. A cardiac arrest is defined when a person is not breathing or when a pulse cannot be felt.
- o Remember your three C's: **C**all for help, start cardiopulmonary resuscitation (**C**PR), and get the crash **C**art. To learn more about CODE PINK, please refer to "Calling Codes SOP".
- o Call switchboard operator (ext. 4444). Indicate your name and title, CODE PINK, and your location in the hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
- o If you are trained, start CPR. Remember your ABC's: airway, breathing, and circulation.
- o Send someone to grab the crash cart and return with it to your location. The crash cart is located on **KIDD 4 next to the nurse's station**. The Paediatric Cardiac Arrest Team will need the crash cart.

- o In general, for research areas located in/near a clinical area, the crash cart is located on the clinic floor usually next to a nurse's station. For research areas located in a non-clinical area, you need to grab the automatic external defibrillator (AED) on a hallway wall closest to your location. It is recommended that users of WJHCPOR familiarize themselves as to the location of the closest crash cart or AED to their research location within the hospital in case of a future emergency.
- o See Appendix L for a more detailed emergency response CODE PINK (Paediatric Cardiac Arrest) Plan.
- **CODE WHITE: Violent/Behavioral Situation**
 - o CODE WHITE is called anytime there is violence or a threat of violence. KHSC has a zero tolerance for violent and threatening behaviour.
 - o Activating a CODE WHITE will bring necessary support to maintain or regain control of the situation and to minimize risk of injury to patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR. This plan is not limited to patients/research participants; it may be used for any aggressive/violent persons where you feel threatened and de-escalation techniques are ineffective.
 - o Call switchboard (ext. 4444). Indicate your name and title, CODE WHITE, and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
 - o When dealing with an aggressive/violent person ("aggressor"), remember to:
 - Be aware of any changes in the aggressor's behavior.
 - Maintain a safe distance (2 ½ to 3 feet) from the aggressor so that you can see the aggressor's entire body (head to toe) using peripheral vision while looking at their facial area.
 - Isolate the aggressor where possible by either placing him/her in a secluded room or by removing others in the area.
 - **DO NOT** approach an aggressive person alone; seek assistance wherever possible.
 - Be aware of the environment and always have an escape route identified.
 - Be aware of those who may need to be rescued in the area.
 - o If you are caught in a dangerous situation, or you are being attacked and cannot immediately retreat to safety; **CALL, SCREAM OR YELL** for help.
 - o If the aggressor is visible and has a hostage, initiate the **CODE PURPLE (Hostage Situation)** emergency procedure.
 - o If the aggressor is visible and has a gun or other weapon (with or without a hostage), initiate the **CODE SILVER (Lockdown for Active Shooter/Dangerous Weapon Situation)** emergency procedure.

- o A **CODE WHITE ALL CLEAR** will be announced to advise individuals the crisis is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that crisis no longer exists.
- o See Appendix M for a more detailed emergency response CODE WHITE (Violent/Behavioural Situation) Plan.
- **CODE PURPLE: Hostage Situation**
 - o CODE PURPLE is called anytime there is a hostage situation. A hostage situation will have occurred when a person(s) barricades themselves into an area and/or unlawfully confines, imprisons, or forcibly seizes another person(s) or for the purpose of gaining a perceived negotiating advantage, or in the case of sexual confinement, for obtaining sex from the “hostage”. The Police will at **ALL** times assume command of any hostage situation.
 - o Call switchboard (ext. 4444). Indicate you name and title, CODE PURPLE, and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
 - o When dealing with a hostage situation, the following measures should be implemented to prevent being taken as a hostage:
 - Be aware of, anticipate and avoid danger.
 - Report persons who are suspicious or believed dangerous.
 - Avoid unsafe, dark, secluded areas.
 - Trust your instincts (i.e. maintain a safe distance from a person who makes you nervous).
 - Do not interfere with a hostage situation.
 - Do not give anything to a hostage taker (i.e. coffee, food, cigarettes, etc.). These are important tools for Police negotiation.
 - Do not make deals with a hostage taker.
 - Be aware of those who may need to be rescued in the area.
 - o In the event that you are taken hostage, remember the following:
 - Try to recognize the purpose for which you have been taken. You will have to make a personal decision as to what your best odds for survival are, keeping in mind the potential state of mind of your captor(s). Terrorists and mentally unstable persons are unpredictable and often lack remorse for their actions. A hostage situation is most often the result of a taker’s perception that there is no other way; this is their last and greatest effort to attain some goal. If you decide your best odds for survival are to resist capture, it **MUST** be before the hostage taker gains control of you.

- In general, be a good hostage:
 - Remain calm.
 - Breathe deeply and slowly.
 - Mentally place yourself somewhere else that you would rather be.
 - **DO NOT** be a hero, because high adrenaline and anxiety levels make for unpredictable responses.
 - **DO NOT** show or attempt physical resistance once captured. Cooperate and follow instructions.
 - Behave, as you would have another behave if the roles were reversed.
 - Avoid sudden or threatening movement or gestures of any kind.
 - **DO NOT** make threats of retaliation, deals, or promise rewards.
 - Try to maintain a low profile and not underplay the hostage taker's role.
 - Maintain effective communication with the hostage taker. Allow the hostage taker to initiate conversation. Do not argue. Avoid political or controversial topics. Talk on the same level as the taker, using the same diction, recognizing their apparent educational background. **DO NOT** talk up or down. Speak more slowly than the taker to help calm them down.
 - **DO NOT** offer suggestions to the hostage taker.
 - Establish yourself as a person, making it difficult for the taker to harm you. If possible, do not allow your head to be covered. Maintain your dignity. Project a positive self-image. Maintain eye contact when spoken to, but avoid drawing attention to yourself by staring. Use your first name.
 - Empathize with the taker. Let them feel you understand why they are doing this. Befriend the hostage taker.
 - Hostages should try to stay together to provide each other with mutual support and to aid rescuers in the identification between the takers and the hostages in the event of a Police assault.
 - Don't refuse food, water and rest.
 - Be patient. It may appear as if nothing is happening, but the Police and KHSC's Senior Administration are collaborating to rescue you unharmed as quickly as possible.

- Be observant. In the event of release, your information is of great importance to the Police: How many takers are there? What kind of weapons are they using? What are they saying and doing? Do they appear extremely agitated and nervous or absolutely calm? Do they seem to be showing sympathy towards the hostages? Are escape routes available to you, in the event that the opportunity for escape presents itself or if a rescue is made?
 - Trust the Police. They will minimize your importance to the takers, but are actually trying to save your life. They will try to prolong the situation beyond the first hours or so, in the course of standard calming and control procedures, the longer the situation goes on, the better the chances that it will end peacefully.
 - If you are permitted to speak on the telephone, be careful what you say. Be prepared to answer "YES" or "NO" to questions asked by the Police.
 - In the event of a Police assault, fall to the floor to get out of the line of fire and to distinguish the takers from the hostages. Stay down and keep your hands on your head. **DO NOT** make any sudden moves.
 - If you find that you have been taken for sexual purposes, you will have to make a personal decision as to whether to passively or actively resist. Passive resistance is most often recognized as the safest choice to avoid possible retaliation. Verbalize your unwillingness to be assaulted. Use minimal physical resistance (i.e. pushing their hands, crossing your legs), but **DO NOT** resort to higher levels of force, basically making difficult for the attacker to attain their goal. Active resistance is not considered the safest choice. It is recognized, however, that active resistance can aid in psychological recovery. Resistance may result in retaliation, so your decision to fight at this point **MUST** be without doubt or hesitation.
 - If you decide to "Fight for your life", use improvised weapons from the immediate environment and/or use the hostage taker's body's weak points (i.e. genitals, eyes, throat) to your advantage.
- o In the event that you hear a CODE PURPLE, remember the following:
- The Police will handle negotiations with the captors. **DO NOT** be hero and intervene. No one shall endanger themselves, but shall focus on the containment of the incident and on the safety of the patients, research participants, visitors, volunteers, contractors, KHSC employees and other users of the WJHCPOR in the affected area until additional assistance has arrived. If there is any sign of actual danger or violence to any person **DO NOT** attempt any action.
 - Remain in your area if safe. Cease all unnecessary work-related activity. All patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR should exit corridors, return to their rooms, close doors and remain in their rooms until the crisis no longer exists.
 - If patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR **MUST** evacuate for safety, follow the **CODE GREEN (Evacuation)** emergency protocol.

- If users or KHSC employees **MUST** enter into negotiations with the captor(s) until Police have arrived, use the following guidelines:
 - Use delaying tactics, such as “I’ll ask” or “I’ll seek clarification”.
 - Meet demands with “I will do my best”. Never say “no”.
 - Do not give drugs under any circumstances to the captor(s) until approved by the KHSC’s Senior Administrator and authorized by Police, **unless it is necessary medication for a hostage**.
 - Every effort should be made to regain control of the situation by peaceful means.
 - Leave the decisions to the Police and KHSC’s Senior Administration.
 - Do not follow orders given by a captor unless under conditions of duress or to save lives.
 - If the hostage-taker is a patient or otherwise known to staff, they are to contact any clinical staff who are familiar with and have some influence over, the person involved in the hostage incident. This is to be done whether or not the hostage-taker requested it.
- o If the aggressor is visible and has a gun or other weapon, initiate the **CODE SILVER (Lockdown for Active Shooter/Dangerous Weapon Situation)** emergency procedure.
- o A **CODE PURPLE ALL CLEAR** will be announced to advise individuals the crisis is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that crisis no longer exists.
- o See Appendix N for a more detailed emergency response CODE PURPLE (Hostage Situation) Plan.
- **CODE SILVER: Lockdown for Active Shooter/Dangerous Weapon Situation**
 - o CODE SILVER is called anytime there is an Active Shooter or a person with a dangerous weapon (with/without a hostage(s)) to ensure the safety of patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR in this situation.
 - o If you see an Active Shooter or a person with a dangerous weapon, find a safe place and call switchboard (ext. 4444). Indicate your name and title, CODE SILVER, and your location in the Hospital (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX).
 - o If you hear a CODE SILVER, **ALL** users of the WJHCPOR and KHSC employees **MUST**:

- **RUN** – Cease work activities and take cover. Have an escape route and plan in mind. Leave the area and help others (i.e. patients, research participants, visitors, volunteers, contractors, KHSC employees and other users of the WJHCPOR) escape, if possible. Leave personal belongings behind. Evacuate regardless of whether others agree to follow. Prevent others from entering the area where the active shooter or person with dangerous weapon may be. Keep your hands visible for Police and follow the instructions of the Police.
 - **HIDE** – if you cannot evacuate the area, take cover and hide in a room. Choose a hiding place out of view of the active shooter or person with dangerous weapon and does not trap you or restrict your options for movement. Close, lock and barricade doors with heavy furniture. Provide protection if shots fired. Silence your cellphone and Vocera, remove the phone off the receiver, and turn off any sources of noise (i.e. radio, television, etc.) so not to draw attention to the active shooter or person with a dangerous weapon of your hideout. Be as quiet as possible. Remain calm. Try to hide behind large objects (i.e. cabinets, desks). Await instructions over the intercom. **DO NOT** approach the area, where the CODE SILVER is called.
 - **FIGHT** – **As a last resort and only when your life is in imminent danger**, take action against the active shooter or person with a dangerous weapon to disrupt and/or incapacitate the person by acting aggressively as possible against him/her, throwing items and improvising weapons, and/or yelling. **COMMIT TO YOUR ACTIONS**. **DO NOT** attempt to confront the active shooter or person with a dangerous weapon if you have the option to evacuate or hide.
- o Guidelines for survival when there is an active shooter or person with a dangerous weapon:
- Quickly determine the most reasonable way to protect your own life. Patients, research participants, visitors, volunteers, and contractors will likely follow the lead of users of the WJHCPOR and KHSC employees during this crisis.
 - Be aware of your environment and possible dangers.
 - Take note of the two nearest exits in any location you are in.
 - Do not use social media to post updates on the status of the incident. The active shooter or person with a dangerous weapon may be monitoring social media and you may inadvertently give them useful information.
 - If you are unable to leave the incident for whatever reason:
 - If you are in an office, stay there and secure the door.
 - If you are in a hallway, get into a room and secure the door.
 - Know the difference between cover and concealment. Cover will protect from gunfire and concealment will merely hide you from the view of the shooter. Choose the best space that is available quickly.

- **As a last resort and only when your life is in imminent danger**, attempt to take the active shooter or person with a dangerous weapon down. When the shooter is at close range and you cannot flee, your chance of survival is much greater if you try to incapacitate him/her.
- Once you have reached a safe location you will likely be held in that area by Police until the situation is under control and all witnesses have been identified and questioned. **DO NOT** leave the safe location until Police have instructed you to do so.
- o The objective of the Police when they respond to an active shooter or person with a dangerous weapon is to stop the active shooter or person with a dangerous weapon as soon as possible. Police will proceed directly to the area in which last shots were heard. Police may be wearing normal uniforms or tactical gear/helmets, be armed with rifles, shotguns and/or handguns, use chemical irritants or incapacitating devices (i.e. pepper spray, stun grenades, Tasers, etc.) to control the situation, and shout commands and may push individuals to the ground for their safety.
- o Police will be responding **with the intent to use deadly force** to stop the active shooter or person with a dangerous weapon. When Police arrive:
 - Drop any items in your hands.
 - Immediately raise hands above your head and spread your fingers.
 - Keep hands visible at all times.
 - Remain calm and follow Police Officers' instructions.
 - Avoid making quick movements toward officers, such as attempting to hold on to them for safety.
 - Avoid pointing, screaming and/or yelling.
 - Do not stop to ask Police Officers for help or direction when evacuating, just proceed in the direction from which Police Officers are entering the area.
 - The most important pieces of information to give Police are: (1) location of the active shooter or person with dangerous weapon; (2) number of shooters, if more than one; (3) physical description of the shooter(s); (4) number and type of weapons held by the shooter(s); and (5) number of potential victims at the location.
- o The first Police Officers to the scene **WILL NOT** stop to help injured people. Expect rescue teams comprised of additional Police Officers and emergency medical personnel to follow the initial Police Officers. These rescue teams will treat and remove any injured persons. They may also call upon able-bodied individuals to assist in removing the wounded from the area.

- o In all likelihood it will be impossible and completely unsafe for emergency medical personnel to respond to the location of an active shooter or person with a dangerous weapon until the Police arrive and/or the shooter is incapacitated. **Medical Emergency Codes will not be called for shooting victims until the incident site is secured by Police.**
- o Should a fire alarm be activated, a CODE RED **WILL NOT** be announced over the intercom by switchboard operator. **DO NOT** evacuate from your hiding place and become targets for the active shooter or persons with a dangerous weapon. Unless you feel unsafe in your hiding area (i.e. see/smell smoke/fire), **DO NOT** leave your area.
- o A **CODE SILVER ALL CLEAR** will be announced to advise individuals the crisis is resolved and you can come out of hiding. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that crisis no longer exists and they can come out of hiding.
- o See Appendix O for a more detailed emergency response CODE SILVER (Lockdown for Active Shooter/Dangerous Weapon Situation) Plan.
- **Loss of Power**
 - o The loss of incoming power to WJHCPOR may be isolated (loss of power due to a failure of an internal electrical component such as a breaker) or generally affecting all KHSC areas/departments. In the event of a power loss, continuity of patient/research participant care and services during the power loss and for the effective restoration of normal power are the priorities.
 - o KHSC has two emergency generators. In the event municipal power goes down, the emergency generators will start-up providing a continued service for patient/research participant care and other essential areas within KHSC. The generators will start up within approximately 10 seconds and will provide emergency power.
 - o Red electrical outlets or lights switches indicate emergency power service. All essential/critical patient/research participant care equipment should be plugged into the red outlet. If the equipment is not functional, it is not on emergency power. Try a different red plug. Conservation measures should be taken at this time to ensure a continuous supply of power by limiting the use of non-essential electrical devices (radios, coffee makers, air conditioners, etc.). Shut off ceiling fans and window air conditioners. Await further instruction from KHSC's Maintenance Department.
 - o The Cogen plant located in the Queen's University (Queen's) Central Heating Plant is a joint venture between KHSC and Queen's. In the event of a municipal power outage Cogen can be "activated" to allow both institutions to be taken off generator back up power. This activation process from a "cold start" is estimated to be 45 minutes and approximately 20 minutes from a "warm start (standby mode)". In the event of municipal power loss, Queen's will immediately activate Cogen. If this does not occur, KHSC's Maintenance Department will notify Queen's of the need for Cogen activation.

- o While operating under emergency power conditions, only select elevators will continue to operate. These select elevators are used for patient transfers and deliveries of meals only. Users of the WJHCPOR will need to use the stairs during loss of power.
- o ALL patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR are to remain where they are until advised to move elsewhere.
- o In the event KHSC loses use of all generators and no replacement is available, a CODE GREEN will be called and patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR **MUST** evacuate for safety. Users of the WJHCPOR should follow the **CODE GREEN (Evacuation)** emergency protocol.
- o All areas will be notified via the intercom whenever KHSC must assume emergency power. Power loss will be announced as:
 - Phase 1 Power Loss - Loss of power is due to the failure of any electrical components and/or power distribution panel, and only affects a specific area of KHSC. No interruption of municipal power to KHSC.
 - Phase 2 Power Loss - Loss of municipal power or Cogen power. KHSC emergency power is running on 2 generators.
 - Phase 3 Power Loss - Loss of municipal power or Cogen power. KHSC emergency power is running on 1 generator.
 - Phase 4 Power Loss - Loss of municipal power or Cogen power. KHSC lost all use of generators and no replacement is available. CODE GREEN will be activated.
- o In the event of a major power loss, power outage kits are available in each patient care area and support departments. Power outage kits contain flashlights, lanterns and alcohol hand rub. KHSC's Protection Services are responsible for checking the power outage kits on a monthly basis to ensure they remain stocked and functional. KHSC's Protection Services will patrol non patient-care areas and supply emergency lighting as needed.
- o A **POWER LOSS ALL CLEAR** will be announced to advise individuals the power loss is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the power loss no longer exists.
- o See Appendix P for a more detailed emergency response Loss of Power Plan.
- **Loss of Potable Water**
 - o The loss of potable/municipal water via a disruption of water service to a portion of or the entire KHSC represents a major hazard to the patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR.

- o KHSC's potable water is supplied by the municipal water source via six primary inlet feeds that supply domestic water to the following wings: Connell, Kidd, Dietary, Watkins, Victory and Burr. A network of internal pipes distributes that water within KHSC. A failure of the municipal water mains or any part of the internal network of pipes could represent a loss of potable/municipal water to a portion of or the entire KHSC.
- o Conservation measures should be taken any time there is a loss of potable/municipal water to KHSC to ensure a continuous supply to as many essential areas of the hospital as possible. This includes limiting the use of non-essential water use (i.e. washing hands when hand sanitizer is available, use of ice machines, etc.).
- o All areas will be notified via the intercom whenever potable/municipal water service is disrupted. Loss of potable/municipal water will be announced as:
 - Phase 1 Partial Loss of Potable Water - Loss of potable water is due to the failure of internal water transportation infrastructure which only affects a specific area of KHSC. There is no interruption of municipal potable water to KHSC.
 - Phase 2 Complete Loss of Potable Water - Loss of potable water is due to a complete loss of potable water service to KHSC.
 - Phase 3 Loss of Municipal Water Service - No supply of water from the municipality. A decision will be made by KHSC's Senior Administration as to whether KHSC can defend in place or conduct a staged evacuation (CODE GREEN). If a CODE GREEN is activated, follow the CODE GREEN (Evacuation) emergency procedures.
- o Users of the WJHCPOR and KHSC employees will ensure all patients, research participants, visitors, volunteers, and contractors are aware of the loss of potable/municipal water.
- o Ration water, as appropriate. During Phase 2 or 3 loss **DO NOT** drink or use water from any taps KHSC. Safe drinking water will be distributed, as required.
- o A **WATER LOSS ALL CLEAR** will be announced to advise individuals the water loss is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the water loss no longer exists.
- o See Appendix Q for a more detailed emergency response Loss of Potable Water Plan.
- **Flood Contingency**
 - o Anyone that is aware of a flooded area from water intrusion within KHSC is authorized to activate the flood contingency plan. Facility based flooding will occur immediately related to burst pipes, infrastructure failure or construction projects. Weather related floods develop slowly during an extended period of rain or in a warming trend following a heavy snow. Catastrophic floods are associated with burst dams, hurricanes, tsunamis and earthquakes.

- o Flooding can cause site erosion, structural and nonstructural building damage, the destruction or impairment of utilities and mechanical equipment, damage to or loss of contents, health threats from contaminated floodwater, and temporary or permanent closure. In addition, off-site flooding can block access routes to and from the site.
- o Call switchboard (ext. 4444). Indicate your name and title and your location in the Hospital where flooding is occurring (i.e. W.J. Henderson Centre for Patient-Oriented Research, Connell 4, Room 2-4-XXX), and if there is potential for considerable damage (i.e. electronic or sensitive equipment, patient records, potential for mould growth or structural damage). All areas affected by flooding will be notified by an announcement through the intercom.
- o Take necessary steps/precautions to mitigate water damage to personal and facility property in the affected area. The water from all floods should be considered contaminated until proven otherwise.
- o Use outlets in areas that are **NOT** affected by the flooding or have Ground Fault Interrupt (GFI) protection.
- o Consider which items in your area are absolutely necessary to protect and keep functioning.
- o Isolate and refrain from entering any areas affected by the flood.
- o Do not use elevators in the vicinity of the flood.
- o Be prepared for partial or full evacuation of affected areas (CODE GREEN).
- o If flood water is from the sanitary sewer system, activate CODE BROWN.
- o Remediation will need to be carried out by KHSC's Environmental Services and Maintenance Departments related to wet carpet, ceiling tiles, drywall, electrical, files/papers, laminate surfaces, and furniture.
- o A multidisciplinary KHSC team (Infection Control, Maintenance, Environmental Services, Protection Services, and staff from affected area) need to conduct an inventory of all water-damaged areas, building materials and furnishings.
- o A **FLOOD, Location Provided, ALL CLEAR** will be announced to advise individuals the flooding is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPO that the flooding no longer exists.
- o See Appendix R for a more detailed emergency response Flood Contingency Plan.

- **Loss of Information Technology**

- o Loss of KHSC's internal or external Information Technology communications system may be a partial or total information technology loss.
- o All areas will be notified via the intercom by the switchboard operator whenever Information Technology is disrupted. Loss of Information Technology will be announced as:
 - Stage 1 - Loss of Partial Information Technology: the main clinical systems are PCS (Patient Care System), PACS (Imaging System), Oncology (OPIS 2005), Varian (Cancer Treatment), xCelera, Lab (Lab Information System - LIS), Cardiology, Operating Room (PICIS/ORSOS), Emergency Room (EDIS), and Pharmacy (BDM/PYXIS). KHSC has over 200 technical systems/applications that run KHSC's clinical and business services.
 - Stage 2 – Loss of all Information Technology Service Network: loss of all clinical systems or a major system like email.
- o KHSC's Helpdesk will initiate an email distribution of the notice of an unscheduled service interruption for Stage 1 whenever one or more networks/systems will be down. KHSC's Helpdesk will initiate an email distribution of the restoration once resolved.
- o For complete loss of all networks/systems the switchboard operator will make an announcement "**Stage 2 Network Information Technology Loss**" over the intercom. An **Information Technology ALL CLEAR** will be announced to advise individuals the loss of Information Technology is resolved. KHSC's Helpdesk will also initiate an email distribution of the restoration once resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the loss of Information Technology is no longer exists.
- o See Appendix S for a more detailed emergency response Loss of Information Technology Plan.

- **Loss of Communications**

- o Loss of internal communications is when the telephone and/or overhead paging is down. If the internal communications system has failed, Vocera, cellular telephones and "Blue Dot" phones may be the only means of communication. Two way radios will also be available from KHSC's Protection Services.
- o In the event the standard overhead paging system is not working, the switchboard operator may use the "All Call" feature on the main fire alarm system enunciator panel in the EVAC Room (22-1-306) on Davies 1 to make overhead pages. In the event that the "All Call" feature does not work, the switchboard operator can use the "Blue Dot" phones for communication and inform all areas of the loss of communications.
- o Loss of communication occurs in phases:

- Phase 1 - Loss of communications expected to last less than 2 hours.
- Phase 2 - Loss of communications expected to last more than 2 hours.
- o “Blue Dot” phones are located in designated in various areas within KHSC in the loss of power kits. Using a “Blue Dot” phone is the same as using a phone in your home; you do not need to dial 9 first for an outside line. KHSC’s four-digit numbers will not work with these phones.
- o The switchboard operator will make an announcement “**Phase 1 Communications Loss**” or “**Phase 2 Communications Loss**” over the intercom. A **Communications Loss ALL CLEAR** will be announced to advise individuals the loss of communications is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the loss of communications is no longer exists.
- o See Appendix T for a more detailed emergency response Loss of Communications Plan.
- **Loss of Heat & Steam**
 - o The loss of heat/steam via a disruption of heat/steam service to a portion of, or the entire KHSC represents a major hazard to patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR.
 - o KHSC’s steam is supplied by Queen’s Central Heating Plant. The Cogen Power Plant is operated by Queen’s and generates power via natural gas heating water into steam to drive electrical generators. In the event of a Queen’s Central Heating Plant failure, the Cogen steam power plant does have the capability to supply steam for the hospital.
 - o Loss of heat/steam occurs in phases:
 - Phase 1 – Partial loss heat/steam service: loss of heat/steam is due to the failure of internal steam transportation infrastructure which only affects a specific area of KHSC. There is no interruption of Queen’s steam plant generation to KHSC.
 - Phase 2 – Complete loss of heat/steam service: complete loss of heat/steam service to KHSC.
 - o Conservation measures should be taken any time there is a loss of heat/steam to KHSC. This includes closing doors and windows, temporarily closing redundant exterior exits and shutting down of the ventilation system to avoid heat loss and freezing of coils. Assess need for blankets.
 - o All areas will be notified whenever steam service is disrupted. In emergency cases notification will be made via overhead announcements, all users email, Vocera, and/or by phone. In non-emergency cases, or during testing, this will be done in advance by e-mail or hard copy and by phone to affected areas.

- o The switchboard operator will make an announcement “**Phase 1 Heat/Steam Loss**” or “**Phase 2 Heat/Steam Loss**” over the intercom. A **Heat/Steam Loss ALL CLEAR** will be announced to advise individuals the loss of heat/steam is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the loss of heat/steam is no longer exists.
- o See Appendix U for a more detailed emergency response Loss of Heat & Steam Plan.
- **Loss of Medical Gases**
 - o The term “loss of medical gases” refers to both oxygen (O₂) and medical air. Nitrous oxide (NO) is also a medical gas, but normally its loss is not an emergency. The loss of vacuum (a.k.a. suction) lines will also be considered an emergency.
 - o All areas will be notified whenever medical gases are disrupted in their area. In emergency cases notification will be made via overhead announcements, all users email, Vocera, and/or by phone. In non-emergency cases, or during testing, this will be done in advance by e-mail or hard copy and by phone to affected areas.
 - o The medical gas alarms at KHSC’s Switchboard are designated into four categories of alarm, 1 being the lowest and 4 being the highest priority:
 - **Priority 1** – switchboard notifies KHSC’s Maintenance Department.
 - **Priority 2** – switchboard notifies KHSC’s Maintenance Department and KHSC’s Maintenance Manager.
 - **Priority 3** – switchboard notifies KHSC’s Administrative Coordinator/ Delegate, KHSC’s Maintenance Department and KHSC’s Maintenance Manager.
 - **Priority 4** – switchboard announces “Loss of Medical Gases Low Oxygen Alarm” over the intercom.
 - o Loss of medical gases is defined in two stages:
 - **Stage 1 – Localized Loss of Medical Gases due to failure of any internal delivery and/or distribution systems.** Loss of medical gases (O₂ and/or Medical Air) is due to the failure of any gas delivery components and/or distribution system, and only affects a specific area of the hospital. There is no supply interruption of medical gases to the rest of the hospital.
 - **Stage 2 – Loss of Medical Gases to Entire Hospital.** The supply of medical gases (O₂ and/or Medical Air) to the entire building has been compromised.
 - o There will be a point in the incident response where the level of auxiliary oxygen is just enough to maintain the supplies for a limited time or start the CODE GREEN (Evacuation) process. This will be dependent on the available supplies, and the number of patients/research participants requiring oxygen at that time.

- o The switchboard operator will make an announcement “**Loss of Medical Gases Low Oxygen Alarm (Priority 4)**” over the intercom. A **Medical Gases Loss ALL CLEAR** will be announced to advise individuals the loss of medical gases is resolved. Advise all patients, research participants, visitors, volunteers, contractors, KHSC employees and users of the WJHCPOR that the loss of medical gases no longer exists.
- o Users should verify that the medical gas supply is functioning properly in the Clinical Investigation Unit (bed areas and procedure room) within the WJHCPOR. If not, portable gas supplies (tanks) are available in the event of a loss of medical gases. During an emergency, delegate a user to report to KHSC-KGH’s Cylinder Room (Connell 0, Room 2-050) to obtain the required number of tanks of medical gases required. Tanks will be provided to priority/critical areas only.
- o See Appendix V for a more detailed emergency response Loss of Medical Gases.

6.0 SOP HISTORY

SOP Number	Date Issued	Summary of Revisions
SOP-EP-01	01-DEC-2017	Original version.
SOP-EP-01.1	01-FEB-2018	A few of KHSC’s emergency codes were updated or added to KHSC’s internal website under Protection Services. Appendix G (CODE BLACK) and Appendix O (CODE SILVER) were updated. Emergency code LOSS OF MEDICAL GASES was added to policy and code added as “Appendix V”.
SOP-EP-02	01-MAY-2019	Bi-annual review of SOP completed. SOP header format updated. SOP version number updated. SOP effective date updated. Removed “Contacts” section from SOP. Updated section number for “SOP History”. Updated titles in table and sub-headers for emergency codes (Code Orange, Code Amber, Code Black, Code Brown, Code Grey, Code Purple, Contingency Plans) under Section 5.0, under bullet 3. Updated sub-header title for Code Orange under Section 5.0, under bullet 6. Updated sub-header title for Code Amber under Section 5.0, under bullet 8. Updated sub-header title for Code Black under Section 5.0, under bullet 10. Updated sub-header title for Code Brown under Section 5.0, under bullet 11. Updated sub-header title for Code Grey under Section 5.0, under bullet 12. Updated sub-header title for Contingency Plans under Section 5.0, bullets 24.Updated “SOP History” section. Updated Appendix D, E, F, G, and L. No updates needed to Appendix A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, and V.