

BU Agent Incident Reporting Summary January to March 2019

**CAMPUS	Date of Incident	Incident Type/Agent Involved	BSL	Transmissible Person to Person	Description	*Reportable Incident	Report of Clinical Illness	Agency Reported To	Comments/Corrective Actions
BU Medical Campus (BUMC)									
BUMC	1/9/19	Exposure to left eye with solid NaOH	BSL-2	No	A Research Associate walked into ROHP at about 12:30 pm. She reports while scooping solid form of NaOH to measure on a scale, a grain came into her left eye. She felt irritation right away but no vision changes.	No	No	N/A	As a follow up to this incident, EHS reviewed emergency response procedures with the research associate. It was mentioned that copious amounts of water are needed to flush the eyes and that rinsing immediately for at least 15 minutes at the nearest eyewash is best prior to following up with ROHP. We discussed the importance of performing weekly equipment inspections to confirm effective performance. Additionally, it was emphasized that eyewash stations must be unobstructed from clutter at all times to allow easy access in the event of an incident. Lastly, we talked about eye protection and the need for safety glasses. Root cause was lack of PPE and lack of training. To prevent recurrence, standard PPE (lab coat, gloves and safety glasses) must be worn when handling and/or transporting chemicals such as NaOH.
BUMC	1/23/19	Bilateral forearm dermatitis	BSL-2	No	A PhD student walked into ROHP with her supervisor this morning at 10:30 am reporting she noticed an itchy skin rash on her forearms at about 10:15 am this morning. She reports her lab experienced a flood of water Monday Jan. 21st. The supervisor reports facilities is working with his lab.	No	No	N/A	This incident is still being followed up and is on-going.
BUMC	1/28/19	Chemical exposure	N/A	No	ROHP received a phone call today at 10:50 am from a research technician that she accidentally spilled a small bottle of "TEMED" containing about 10ml of N,N,N,N-tetramethyl ethane-diamine.	No	No	N/A	As a follow up to this incident, EHS conducted an interview with the student. The student noted that she had wet her eyes in a bathroom bypassing the available eyewash in the lab which is contrary to their lab safety training. EHS reiterated the OSHA standard in the interview. The researcher was reminded that the proper PPE for working with chemicals is not just gloves and lab coat but goggles since the researcher wore prescription glasses. EHS had gone to the scene when spill was reported by ROHP but the student had cleaned it up before arrival. EHS referred to the BU safety training that no chemical waste should be thrown into a biowaste box but instead discarded as hazardous waste via the satellite accumulation area. To prevent a similar chemical spill containers should be tightly closed when not in use. The researcher needs to update their chemical safety training.
BUMC	1/29/19	Illness of two individuals in same unit	BSL-2	No	A director for a clinical research center walked into ROHP at 11:10 am to report one of her administrative staff members had a vomiting episode early this morning around 7:30 am requiring further evaluation at the emergency room. The administrative staff person does not work with any hazardous agents.	No	No	N/A	This incident is still being followed up and is on-going.
BUMC	1/31/19	Needle stick injury to left index finger potential Herpes B	BSL-2	No	At 6:10 am today, a maintenance mechanic sustained a needle stick injury while emptying a filter in a drain in the W building (700 Albany Street).	Yes	No	BPHC	EHS met with the maintenance mechanic and corroborates the ROHP report, with a minor discrepancy for the frequency required to clean the filter. There was no SOP specified for cleaning the filter and no PPE requirements. ASC reviewed the existing controls that could prevent a needle tip from getting into the drain. EHS and BU facilities evaluated procedures for cleaning the filter. EHS prompted retraining for lab personnel. Laboratory staff place used sharps, whether contaminated or not, into these containers. EHS recommended ASC get sink traps for each drain. As a control measure, ASC will install the sink traps. EHS worked with facilities management to develop a cleaning procedure for the filter and additional personal protective equipment were recommended for this task. Going forward, cut resistant gloves and safety glasses will be worn. With this evaluation, EHS recommended facilities add an in-line valve to the filter so that there was a closing mechanism to prevent dumping on the person cleaning the filter. To ensure sharps safety policies and procedures are being adhered to, EHS is reviewing laboratory safety training records and sending out reminders to researchers who were out of date for their compliance requirements.

BUMC	2/6/19	Rat bite to left middle finger	ABSL-1	No	An undergraduate student research assistant walked into ROHP at 2:40 pm reporting she sustained a rat bite on her left middle finger at approximately 2:15 pm today.	Yes	No	BPHC	EHS conducted a follow up phone interview with the student. In summary, the rat was clean and did not harbor any pathogens or hazardous agents. To prevent recurrence, the student will use both hands to lid the cage. This will assure the student is not within reach of the rat during this task.
BUMC	2/8/19	Clean mouse bite to right ring finger	ABSL-1	No	At 2:30 pm today, a trainer called to report that an undergraduate student had sustained a clean mouse bite a few minutes earlier during a training session at the BUASC.	Yes	No	BPHC	EHS conducted a follow up phone interview with the student. In summary, the mouse was clean and did not harbor any pathogens or hazardous agents. The focus of the training was dosing a mouse by intra-peritoneal injection. The student is scheduled to continue his training with the ASC Training Coordinator and will attend training sessions until sufficiently trained.
BUMC	3/7/19	Mouse bite to left thumb	BSL-2	No	On 3/8/19, a 3rd year PhD student came to ROHP as a walk-in to report a mouse bite on 3/7/19 at 12:43 pm. She had not previously reported the bite.	Yes	No	BPHC	EHS conducted a follow up phone interview with the student. In summary, the mouse was clean and did not harbor any pathogens or hazardous agents. When asked, she did not feel rushed to complete the procedure and was conducting a typical workload for that day. When this incident occurred the student was following the SOP accordingly and wearing PPE. Steps to prevent recurrence are non-applicable, as there are no additional mouse handling practices to recommend.
BUMC	3/13/19	Lower back strain	BSL-2	No	A safety specialist walked into ROHP to report she strained her right lower back when performing a safety shower check.	No	No	N/A	This incident is still being followed up and is on-going.
Charles River Campus (CRC)									
CRC	1/15/19	Wound on back of left hand	BSL-2	No	A PhD student called ROHP this morning at 9:40 am to report he noticed a small pin point blood spot on the back of his left hand yesterday 1/15/19 at around 3:00 pm.	No	No	N/A	As a follow up to this incident, EHS spoke with the student. Immediately, he washed his hands with soap and water. He was performing cell cultures and noted that he did not spill any contaminants while working. He tested the gloves he was working with and found no holes or tears. It is suspected that the dry skin spot may have been caused by pulled hair from the back of his hand.
CRC	1/24/19	Clean mouse bite to left index finger	ABSL-1	No	An animal care technician was bitten by a clean mouse on 1/24/19 while participating in a training in the Animal Science Center on the CRC.	Yes	No	BPHC	As a follow up to this incident, EHS spoke with the animal care technician. In summary, the mouse was clean and did not harbor any pathogens or hazardous agents. The root cause was attributed to insufficient skills or expertise. The animal care technician is scheduled to continue her training with BUASC until sufficiently mastering the tasks for mouse handling and restraint.
CRC	1/25/19	Abrasion to right index finger	N/A	No	At 11:15 am, a lab safety coordinator called ROHP to report an injury in the lab. A visiting graduate student from China had cut her right index finger with a piece of broken glass and the wound was still oozing.	No	No	N/A	As a follow up to this incident, EHS recommends the student refrain from touching broken glass and equipment should be examined and determined to be in good working order before use.
CRC	1/30/19	Cut to left index finger	N/A	No	ROHP received a phone call from an organic chemistry lab supervisor reporting an undergraduate student was checking glassware while wearing gloves, when she accidentally sustained a cut at the base of her left index finger from a broken stirring rod. She washed the site immediately with soap and water. No chemicals or hazardous agents were involved with this incident.	No	No	N/A	As a follow up to this incident EHS confirmed there were no biological or hazardous agents involved. To avoid cuts, glassware should be examined for cracks and/or chips before use.
CRC	2/6/19	Splash of dichloromethane to chin	N/A	No	At 7:44 pm on 2/6/19, ROHP's answering service received a phone call from a stock room employee in the organic chemistry teaching lab related to a dichloromethane splash on an undergraduate student's chin, which had occurred at 7:30 pm. The responding M.D. spoke to the student involved in the incident shortly afterward.	No	No	N/A	As a follow up to this incident, the student was mixing a solution of benzyl and <0.25g of dichloromethane in a test tube covered with parafilm. When she shook the mixture vertically, some of the product escaped the test tube and splashed her in the face. Under the instruction of her teaching fellow, she irrigated her face for 15 minutes prior to following up with ROHP. This was an inadequate procedure and lack of training. EHS advised that all mixing take place inside of a fume hood with the sash lowered for protection.

CRC	2/11/19	Exposure to sodium azide	N/A	No	At 6:30 pm on 2/11/19, a 4th year graduate student in the Chemistry Department spilled a 0.05% solution of sodium azide (200 mg sodium azide in one liter of media). About 500 ml of the solution spilled, and the graduate student, wearing one pair of gloves, began to wipe it up with paper towels. The solution soaked through the paper towels and sent through the protective glove, immediately causing tingling in one of his fingers.	No	No	N/A	He immediately removed the glove, washed his hand and followed up with the ROHP after hours hotline. As a follow up to this incident, EHS conducted an interview with the graduate student. The student noted that at the time of the spill, the spill kits were empty, which is why he was using paper towels. To prevent recurrence in the future, the joint on the system was repaired to prevent future leaks, and spill kits were re-filled. The lab has implemented a policy that they will use chemical resistant gloves instead of nitrile gloves in the event a spill involving sodium azide needs to be tended to.
CRC	2/11/19	1st degree burn to palm of right hand	N/A	No	ROHP received a phone call from an organic chemistry lab supervisor around 1:20 pm that an undergraduate work study student accidentally touched and burned the palmer aspect of her right hand.	No	No	N/A	As a follow up to this incident, the work study student was working in the dispensing room putting away equipment turned in by the teaching fellows and grabbed a hot plate that had not cooled down. The student ran her right hand under cold water, applied burn cream and followed up with ROHP. In the future, EHS asked that equipment only be returned to the dispensing window once it has had adequate time to cool down.
CRC	2/11/19	Clean needlestick to right index finger	N/A	No	ROHP received a phone call from an organic chemistry teaching lab at 1:50 pm that an undergraduate student sustained a clean needle stick with a brand new needle on his right index finger as he was unwrapping so he could use it to dispense solvent into his reaction. No biologics or hazardous agents were involved.	No	No	N/A	As a follow up to this incident, EHS confirmed there were no biologicals or hazardous agents involved and reviewed sharps safety practices.
CRC	2/19/19	Non-exposure incident	BSL-2	No	A PhD graduate student researcher called the Charles River Campus BU Occupational Health office 2/19/19 to report he felt something sharp strike his finger as he was pulling a bag out of a bio-hazardous, non-sharps trash container.	No	No	N/A	As a follow up to this incident, EHS inspected the orange piece of plastic that had fused to the outside of the biohazard bag and determined it was a malfunction from the manufacturing bag process. He inspected his gloves and saw no tear or puncture. He filled the gloves with water and saw no leaking. Work conducted in the lab consists of human cell lines, not known to be infected with pathogens. In the future, the student will be more aware of his surroundings.
CRC	2/20/19	Mouse bite to left thumb	BSL-1	No	At 9:45 am on 2/20/19, an animal care technician (ACT) was bitten by a mouse while examining a mouse with a belly wound, which he noticed while transferring mice from a dirty cage to a clean cage. This occurred in the animal care facility on the CRC.	Yes	No	BPHC	As a follow-up to this incident, EHS conducted a phone interview with the technician. The mouse was in a group being fed a high fat diet, but was otherwise naïve. He noted that his grip could have been tighter while scruffing the mouse, and will consider this in the future.
CRC	2/26/19	Inhalation of benzyltriphenylphosphonium chloride powder	N/A	No	The on call physician reports a chemistry student from a teaching lab called 2/26/19 to report that at approx. 5:45 pm a student thinks she breathed in some benzyltriphenylphosphonium chloride powder.	No	No	N/A	As a follow up to this incident, the student was wearing gloves, goggles and a lab coat. EHS recommended to move the scales to inside a fume hood to prevent potential inhalation hazards.
CRC	2/27/19	Exposure to one or more dry chemicals	N/A	No	At 6:00 pm on Wednesday evening, 2/27/19, an undergraduate student in an undergraduate organic chemistry lab sustained a skin exposure to one or more chemicals on her left ulnar wrist.	No	No	N/A	As a follow up to this incident, the undergraduate student was beginning to set up her reaction in lab by measuring out powdered reagents. She shared that while changing her gloves, she felt a stinging sensation on her left wrist and noticed a small red spot in the same area. She was wearing a lab coat, close toed shoes, and eye protection at the time, but believes her lab coat had ridden up her arm, exposing her wrist. She thought that the chemical in question was dichloromethane. To prevent recurrence in the future, she will examine her PPE before starting work and ensure that the lab coat is fitting correctly and not exposing her wrist.

CRC	3/2/19	Inhalation of dimethyl sulfate	N/A	No	On Saturday evening, 3/2/19, a third year Chemistry PhD student was working with 50 mg of dimethyl sulfate. At one point in the procedure, he used an evaporator to draw off volatile gases. When he disconnected the evaporator, he could smell the dimethyl sulfate, and realized that he had not properly destroyed it during the procedure. He moved away from the evaporator and at that time, felt no respiratory irritation, mucus membrane irritation, nosebleeds, chest pain, shortness of breath, or any other symptoms related to this brief exposure. The next morning, however, he woke with painful sinuses, especially the frontal sinuses behind his eyes.	No	No	N/A	As a follow up to this incident, a PhD student was working with dimethyl sulfate in a reaction under vacuum. He realized as he disconnected the vacuum that the reaction had not fully quenched and there was still dimethyl sulfate in the vial. The evaporator was outside of the fume hood. He could smell the dimethyl sulfate and moved away from his set up. He was wearing gloves, close toed footwear, protective eyewear and a lab coat. He reported that he felt no symptoms at the time of the incident but woke the next day with sinus pain and sought emergency medical attention. In discussion with EHS, the graduate student will modify the procedure and use a rotary evaporator and aqueous ammonium hydroxide (which is a more effective method for quenching and removing the dimethyl sulfate from the reaction).
CRC	3/6/19	Malachite green chemical on teeth	N/A	No	A Biology teaching lab supervisor called ROHP at 3:25 pm to report an undergraduate student reported got "malachite green" chemical on her teeth. The student was irrigating her mouth at the time of the call and was advised to continue irrigating for at least 15 minutes.	No	No	N/A	Immediately after the incident, the student irrigated her mouth with water for 15 minutes. To prevent recurrence in the future, the student will be more cautious when preparing slides next time and adhere to good chemical handling practices.
CRC	3/7/19	Exposure to acetone to right leg	N/A	No	At 8:58 pm on 3/7/19, a teaching fellow from organic chemistry called to report a spill in the organic chemistry teaching lab. Shortly before the phone call to the answering service, a 2nd year undergraduate student spilled a waste container containing acetone and water (500 cc or less) on her leg while trying to dispose of the waste in the waste container.	No	No	N/A	As a follow up to this incident, retraining was provided to the student so that chemical wastes are properly managed and disposed of.
CRC	3/7/19	Laceration to thumb	N/A	No	ROHP received a emailed Incident Report on 3/8/19. At 6:00 pm on 3/7/19, an undergraduate student sustained a cut on (his or her) thumb while cleaning glassware. The student flushed the area with cold running water for 20 minutes but failed to halt the bleeding, so the BUPD and EMTs were called.	No	No	N/A	Both ROHP and EHS continued to attempt to investigate this incident with numerous calls and emails to both the student and instructor who had reported the incident but were unable to reach them. To avoid cuts, glassware should be examined for cracks and/or chips before use.
CRC	3/8/19	Clean mouse bite to right index finger		No	At 3:15 pm today, an undergraduate student was bitten on her right index finger by a naive mouse during a training session on the CRC. The student was double gloved at the time of the incident. She was taking part in training related to scruffing the mouse at the time, and the mouse was able to turn its head and bite the finger.	Yes	No	BPHC	After several attempts to connect with the student, EHS conducted a follow up phone interview on 4/4/2019. In summary, the mouse was clean and did not harbor any pathogens or hazardous agents. The focus of the training was handling and scruffing a mouse. The student is scheduled to continue her training with the BUASC training coordinator and will attend training sessions until sufficiently trained.

NEIDL	1/7/19	Left foot contusion	BSL-4	No	A BSL4 NEIDL staff person walked into ROHP at about 1:00 pm to report left foot discomfort and redness after a shower door closed on her left foot while exiting the lab at about 10:00 am this morning. She was evaluated and treated in ROHP and knows to follow up with our office as needed.	No	No	N/A	As a follow up to this incident, it was found that the shower door was malfunctioning. Facilities replaced the broken door piston with a new one. In the future, any signs of broken or defective equipment needs to be reported to facilities for repair.
NEIDL	3/26/19	Breach in suit glove with inner glove contact	BSL-4	No	ROHP received a phone call from the scientific safety officer in the NEIDL at 3:20 pm today. He reported that a research technician who was in BSL4 bio-containment today reported a breach in his left suit glove after he entered the decontamination area around 3:00 pm. The research technician was working cells infected with Ebola and Marburg virus, using pipettes tips and no other sharps. There was no incident that occurred that would have explained the breach in the suit glove.	Yes	No	BPHC CDC	While working with agents, the researcher wore three pairs of gloves total: inner gloves, suit gloves and outer gloves. There were no reported spills of agent. After exiting BSL-4 chemical shower and doffing suit, the researcher noticed that his glove was wet. As a follow up, the researcher checked the integrity of his suit glove by removing it and filling it with water. He noticed that there were three small pin holes along the index finger of his suite glove and one pin hole on the thumb. The inner glove was filled with water and found to be intact. With this incident, the glove tear was attributed to the connecting and disconnecting air hoses in the chemical shower. Researchers were reminded by EHS to exercise caution when performing this task and to evaluate the integrity of their PPE at all times.
Other - Collaborating Laboratory		No incidents							

* Indicates if incident is reportable to local, state or federal agency (e.g. Centers for Disease Control, National Institutes of Health, Boston Public Health

** Campus Location

BUMC - Boston University Medical Center

CRC - Charles River Campus

NEIDL - National Emerging Infectious Disease Laboratories

Other - work done at collaborating laboratories