STANDARD OPERATING PROCEDURE (SOP) Department: Regenerative Medicine Research Center SOP No: 07 Ver: 01 SOP Title: Blood contaminated material clean-up

SOP Number: 07-ver 01

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1. PURPOSE

The purpose of this SOP is to set out the procedures for blood contaminated material clean-up.

2. INTRODUCTION

Blood and blood contaminated material may contain viruses, bacteria, and parasites that can cause harm to exposed individuals. In order to reduce exposure to these blood borne pathogens all custodial staff must use the following procedures when cleaning up blood.

3. SCOPE

- 3-1- All of the cleanroom user and custodial staff.
- 3-2- All of the cleanroom area

4. **DEFINITIONS**

- **4-1- Cleanroom:** A cleanroom is an engineered space, which maintains a very low concentration of airborne particulates. It is well isolated, well-controlled from contamination, and actively cleansed.
- **4-2- Blood:** Human blood, human blood components and products made from human blood.
- **4-3- Blood-Borne Pathogens (BBP):** Pathogenic microorganisms that can cause disease in humans. These pathogens include but not limited to hepatitis B (HBV) and human immunodeficiency virus (HIV). These pathogens have been detected in blood, blood components, urogenital secretions, urine, salvia, and cerebrospinal fluid. Of these materials, human blood presents the greatest potential for transmitting infections.
- **4-4- Contaminated**: The presence of blood or the reasonably anticipated presence of blood or other potentially infectious materials (on a surface or item).
- **4-5- Contaminated Sharps:** Any contaminated objects that can penetrate the skin including, but not limited to, needles, scalpels, broken glass and broken capillary tubes.
- **4-6- Decontamination:** The use of physical or chemical means to remove, inactivate, or destroy blood-borne pathogens (on a surface or item) to the point where they no longer capable of transmitting infectious particles; and the surface or item is rendered safe for handling, use, or disposal.
- **4-7- Personal Protective Equipment (PPE):** Is specialized clothing or equipment worn by an employee for protection against a hazard. It includes: gloves, gowns, face shields, masks and protective eyewear.

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5. **RESPONSIBILITIES**

- **5-1- Supervisor:** Supervise the full implementation of the SOP
- 5-2- Clean room Staffs: Execute the standard steps listed in the SOP
- **5-3- Quality control officer:** Checking the steps of blood contaminated material clean-up and their compliance with the SOP and recording the relevant data for validation.

6. SPECIFIC PROCEDURE

- 6-1- Items to be included in a Body Fluid Spill Kit:
- 6-1-1- Germicidal disinfectant:
- A solution of 5.25 percent sodium hypochlorite (household bleach) diluted at 1:10 (10% bleach solution – this cannot be premixed, must be mixed at time of disinfection, can use small bleach packets appropriately sized to mix with sterile water).
- "Hospital disinfectant" chemical germicides that have a label claim for tuberculocidal activity. These are chemical germicides that are approved for use as hospital disinfectants and are tuberculocidal when used at recommended dilutions.
- Products as being effective against human immunodeficiency virus (HIV).
- **6-1-2-** Tweezers or forceps (for removing contaminated sharps).
- 6-1-3- Biohazard waste bags.
- 6-1-4- Disposable waste bag.
- **6-1-5-** Disposable gloves (latex, vinyl, or nitrile).
- 6-1-6- Absorbent material:
- High-absorbent paper towels
- Absorbent pads
- 6-1-7- Splash-resistant goggles.
- **6-1-8-** Safety mask/ face shield (if possibility of splashing or aerosolization exists).
- **6-1-9-** Antimicrobial hand wipe (if water source not readily available to wash hands with soap and running water).
- 6-1-10- Disposable gown.
- 6-1-11- Disposable shoe covers.
- **6-1-12-** Sharps Container (available for use).

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6-2- Responding to a Blood Spill:

- **6-2-1-** The first step in responding to a Blood Spill is to select and don the appropriate personnel protective equipment. Always check PPE for tears or damage before wearing. Select the following PPE based on the situation:
- Gloves: Mandatory for all blood clean-up.
- Eye protection: Use when splashing may occur.
- Face Mask: Use when splashing may occur.
- Face Shield: Use when splashing may occur.
- Disposable Coveralls: Use when splashing may occur.
- Booties: Use if walking on blood contaminated area is unavoidable.
- **6-2-2-** If any sharp objects or broken glass is contaminated with blood, remove objects with tongs or forceps and place in a sharps container. Never remove sharps/broken glass by hand.
- **6-2-3-** Contain spill by covering with absorbent material (paper towels, powder, or absorbent pad).
- **6-2-4-** Carefully apply disinfectant solution (1/10 bleach solution, hospicidal cleaner) on and around blood spill. Take care to not splash disinfectant during application.
- **6-2-5-** Allow disinfectant to work: Let sit for 10 minutes. If this is not possible, allow to sit for as long as possible.
- **6-2-6-** Remove absorbent material (paper towels, absorbent powder). Place all contaminated absorbent material in a biohazard bag, autoclave bag or appropriate disposal bag. Repeat process until all visual soilage has been removed. (See SOP: 02-ver 01)
- **6-2-7-** Re-apply disinfectant to area. Allow to air dry or stand for 10 minutes before wiping dry.
- **6-2-8-** Inspect the blood spill area closely; making sure that there is nothing missed and that the clean-up process is complete.
- **6-2-9-** Decontaminate any reusable equipment by placing in bucket of disinfectant solution and allowing it to soak.
- **6-2-10-** Dump waste water down sanitary drain. Place all contaminated disposable equipment in a biohazard bag, autoclave bag or appropriate disposal bag. (See SOP: 02-ver 01)
- **6-2-11-** Remove PPE with caution. Dispose of disposable PPE (e.g., gloves, face mask or shoe cover) into appropriate waste bag.
- **6-2-12-** Wash hands immediately with soap and running water for 30 seconds.
- 6-2-13- Be careful that blood stain disinfection tools, be used for this purpose only.
- 6-2-14- Replace all used PPE after the have been disinfected.

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6-3-Personal Contamination:

- 6-3-1- Remove any contaminated clothing or protective equipment.
- 6-3-2- If skin has been contaminated, wash with soap and warm water.
- **6-3-3-** If eyes have been splashed, rinse under running water (eyewash or faucet) for at least 15 minutes.
- 6-3-4- Administer normal First Aid.
- **6-3-5-** Tell your supervisor about exposure incident.
- 6-3-6- Visit Health Services for evaluation and follow-up care.

6-4- Using a mop for major spills on hard floors:

- 6-4-1- Place WET FLOOR signs around spill area.
- 6-4-2- Assure all necessary equpiment is in the immediate vicinity of the spill.
- **6-4-3-** Mix disinfectant in appropriate bucket.
- 6-4-4- Put on gloves, mask, and eye protection.
- 6-4-5- Put on shoe covers and protective gown.
- 6-4-6- DIP mop head in disinfectant. DO NOT WRING OUT.
- 6-4-7- DO NOT TOUCH MOP TO SPILL. Drip disinfectant over spill.
- 6-4-8- Completely cover spill.
- 6-4-9- Avoid splashing.
- **6-4-10-** Wait the required time (10 minutes). Increase time if heavily soiled. (Keep spill area wet)
- 6-4-11- Return mop head to disinfectant. Wring out.
- 6-4-12- Thoroughly, MOP UP spill.
- Rewet and wring mop head as needed
- Large absorbent pads may be used to soak up solution.
- **6-4-13-** Leave MOP HEAD in the disinfectant solution for the recommended contact time (10 minutes). Wring out mop head and allow to air dry.
- 6-4-14- Discard solution in custodial sink.
- 6-4-15- If used, discard large absorbent pads in biohazard bag. (See SOP: 02-ver 01)
- 6-4-16- Remove PPE with caution.
- Discard disposable gloves and mask in appropriate bag.
- If heavy re-usable gloves are used, spray all outer surfaces with disinfectant and allow to dry.
- Disinfect eye protection with spray disinfectant. Allow to air dry. Replace in biohazard clean-up kit.

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- 6-4-17- Wash hands with soap and running water for 30 seconds.
- **6-4-18-** Dispose of biohazard bag. (See SOP: 02-ver 01)
- 6-4-19- Assure surface is dry.
- 6-4-20- Remove wet floor signs.
- 6-4-21- Replace all used PPE after they have been disinfected.

6-5- Needle or other sharps in Regular Trash:

- **6-5-1-** Locate a sharps container.
- 6-5-2- Put on gloves and safety glasses.
- **6-5-3-** Find a mechanical way to pick up the needle (tweezers, tongs or pliers).
- 6-5-4- Using the tweezers, lift the needle out of the trash can.
- 6-5-5- Carefully place the needle into the sharps container.
- 6-5-6- Wash the tweezers with disinfectant.
- **6-5-7-** Take off gloves and put on new gloves. Wash hands with soap and water if your work is done.

7. FORMS/TEMPLATES TO BE USED

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8. INTERNAL AND EXTERNAL REFERENCES

8.1 Internal References

8-1-1- SOP: 02-ver 01

8.2 External References

8-2-1- Biosafety Manual. IBC-approved version (May 18, 2010).

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9. CHANGE HISTORY

9-1- Initial version:

SOP No: 07-ver 01

Effective Date: "see page 1"

• Significant Changes: --/

• Previous SOP no.: --/

9-2- Replacing a previous SOP:

• SOP No: --/

• Effective Date: --/

Significant Changes: --/

• Previous SOP No: --/

SOP No.	Effective Date	Significant Changes	Previous SOP No.