

**SimLEARN SOP: Creation of Artificial Substances for Use in Simulation Activities**

1. **PURPOSE:** This standard operating procedure (SOP) provides guidance related to the procurement or creation of artificial substances, such as blood, urine, sputum, etc., or the use of moulage to simulate physical conditions.
2. **RESPONSIBILITIES:** SimLEARN Directors, Simulationists, and other employees having responsibility to create, procure or use artificial substances or moulage for use with simulation activities.
3. **REFERENCES:** (1) Riley, R. (2008). Manual of simulation in healthcare. Oxford University Press: New York. (2) Smith-Stoner, M. (2011). Using moulage to enhance educational instruction. Nurse Educator, v 36(1), pp 21-24.
4. **PROCEDURES:** The following procedures will be adhered to for creating artificial substances and will address the use of props for simulation scenarios. A prop is considered to be anything that contributes to the realism of the scenario.
  - a. All implements and containers used to create artificial substances, such as spoons, spatulas, containers, bowls, etc., will be clearly labeled “**not for human consumption/use**” and stored away from eating areas. **No artificial substances will be housed in the food refrigerator.** Labels should be affixed securely and should not use ambiguous language to describe what is kept in the container.
  - b. Containers of ingredients will be clearly labeled for identification purposes as in 4a above and will not include any poisons or controlled substances. Substances will be stored in the Equipment/Decontamination Room where a sink is located for the preparation of artificial substances and subsequent cleaning of any utensils used.
  - c. Commercial off the shelf (COTS) products for simulated body fluids or special effects applications can be used alternatively if recipes involve the use of heat or refrigeration to achieve the most realistic effect.
  - d. Recipes for creating artificial substances or moulage will not use boiling water. The preferred method for creating artificial substances would be from ingredients that can be combined together without the use of heat or refrigeration. There are some instances when refrigeration is needed to assure realism, such as “blood” for a transfusion which normally arrives to the patient’s unit in a chilled fashion. These substances are housed in the Battery Refrigerator located in the Bio-Med Work Room.
  - e. Once the scenario is completed and as soon as feasible, cleaning of the implements and containers, surface areas, mannequins, and other equipment used in the scenario(s) will be undertaken in accordance with SOP # 005 Decontamination Process.
  - f. Any artificial substance developed and not discarded on the same day will have affixed a label citing the dates when reconstitution took place and when the item will be discarded.

- g. No long-term storage of artificial substances will occur once they are constituted and used within the intended scenario(s). For example, if an episode of training lasts for 2 or 3 days then the discard date would be at the end of the training. No more than 1 calendar week of storage (7 days) would be acceptable since there are not any preservatives in the artificial substances.

**/es/ Paula M. Molloy**

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