I. Title
   *Blanket and Fluid Warmer Operating Temperatures*

II. Policy
   This policy outlines the appropriate use of warming cabinets and safe monitoring of warming cabinet temperatures to ensure their safe use in patient-care areas. Warming cabinets will only be used for blankets and appropriate fluids, and will be maintained, utilized and monitored in such a manner to minimize the risk of thermal injury to patients and staff.

III. Procedures
   A. **General Instructions:**
      1. Blankets and fluids will be warmed in separate, dedicated compartments with separate heating elements and temperature controls.
      2. Warming cabinets of any kind will be labeled on the outside of the cabinet to identify the intended content (blankets or fluids).
      3. Warming cabinets of any kind will be labeled with the appropriate temperature range for the intended content.
      4. The blanket or fluid warming cabinets are not to be used for blood or blood products.
      5. If the warmer exceeds the recommended range:
         a. Remove the fluids or blankets.
         b. Adjust the temperature and document the ACTION taken on the appropriate form.
         c. Recheck the temperature approximately one hour post adjustment and document. If unable to regulate the temperature, notify the Clinical Equipment Services (CES) department and document the ACTION.
         d. Clinical warming cabinets will be inspected annually by CES or as needed to assure safe operating temperature settings and performance.

   B. **Temperature Regulation:**
      1. A thermometer or digital display must be present in each warming cabinet.
      2. Warmers will be set at a constant temperature based on the intended content.
      3. Since the temperature settings are adjustable, staff is cautioned not to change the settings outside of the posted ranges.
      4. Ongoing temperature monitoring of blanket warmers will be performed by staff working in the vicinity by visual observation of the posted maximum temperature and the temperature gauges on the equipment.
      5. Temperature monitoring of fluid warmers will be performed daily and recorded on a temperature log.
      6. Do not overfill warming cabinet compartments.
C. **Blanket Warming:**
The maximum temperature for warming blankets is 150° Fahrenheit or 65° Centigrade.

D. **All Warmed Fluids:**
1. Operators are cautioned not to put fluids in the blanket compartment due to the higher operating temperature of the blanket compartment.
2. If Lactated Ringers (LR) and irrigation solutions are stored in the same warming compartment, the lower maximum temperature must be used.
3. Solutions that are not patient specific should be placed behind the solutions already in the warming cabinet so that stock is rotated.
4. When placed in the warmer, containers will be labeled with a “remove by” date, which is the date the container is to be removed from the warmer.
5. The only fluid that may be re-warmed once it has been removed from the warming cabinet is Dakin’s solution. Lactated Ringers, irrigation fluid bags and plastic pour bottles should not be re-warmed.

E. **Irrigation Solutions in bag (within plastic overpouch):**
1. Irrigation solution bags may be warmed to a maximum temperature of 104° Fahrenheit or 43° Centigrade for a maximum of 14 days.
2. When placing the solution in the warmer, mark the solution with a “remove by” date (the date that it is to be removed from the warming cabinet).
3. At 14 days, these irrigation solution bags must be removed from the warming cabinet.
   a. If the irrigation solution bag is removed from the warmer, (but not opened) prior to or at 14 days, mark out the “remove by” date and then it can be used up until the manufacturer’s expiration date.
   b. Once an irrigation solution bag has been removed from the warmer, it should not be returned to the warmer.

F. **Irrigation Solutions in plastic pour bottles:**
1. The maximum temperature for warming irrigation solutions in plastic pour bottles is 104° Fahrenheit or 43° Centigrade for a maximum of 60 days.
2. When placing the plastic pour bottle in the warmer, mark with a “remove by” date (the date that it is to be removed from the warming cabinet).
3. At 60 days, the plastic pour bottle irrigation solution that has been warmed shall be removed from the warmer and discarded.
   a. If the plastic pour bottle is removed from the warmer, (but not opened) prior to the 60 day maximum warming period, mark out the “remove by” date and then it can be used up until the manufacturer’s expiration date.
   b. If the plastic pour bottle is removed from the warmer at the end of the 60 day maximum warming period and is not immediately used, it must be discarded.
   c. Once a plastic pour bottle irrigation solution has been removed from the warmer, it should not be returned to the warmer.

G. **Lactated Ringers (within plastic overpouch):**
1. Lactated Ringers may be warmed to a maximum temperature of 104° Fahrenheit or 40° Centigrade for a maximum of 14 days.
2. When placing LR in the warmer, mark the solution with a “remove by” date (the date that it is to be removed from the warming cabinet).
3. At 14 days, the LR fluid bag must be removed from the warming cabinet.
   a. If the LR is removed from the warmer, (but not opened) prior to or at 14 days, mark out the “remove by” date and then it can be used up until the manufacturer’s expiration date.
b. Once LR has been removed from the warmer, it should not be returned to the warmer.

H. Dakin’s Solution
1. Dakin’s solution compounded by UTMB pharmacy may be warmed to a maximum temperature of 104° Fahrenheit or 40° Centigrade for a maximum of 7 days.
2. Dakin’s solution that is commercially prepared may be warmed to a maximum temperature of 104° Fahrenheit or 40° Centigrade for a maximum of 3 months.
3. When placing Dakin’s solution in the warmer, mark the solution with a “remove by” date (the date that it is to be removed from the warming cabinet).
4. At 7 days or 3 months (as appropriate for the preparation methods stated above) the Dakin’s solution must be discarded.
5. Dakin’s solution may be returned to the warmer and re-warmed (even if opened) up until the “remove by” date written on the bottle representing the end of the 7 day or 3 month period.

IV. Related Documents
Fluid Warming Guidelines

V. Additional References


ECRI, “ECRI Institute Continues to Recommend Maximum Temperature Setting of 130 degrees Fahrenheit for Blanket Warming Cabinets” ECRI Institute, News, April 1, 2014.


House Lorna R. “Blankets Warmed to 200 Degrees °F Do No Harm”. Enthermics Medical Systems white paper.

CPI Century Pharmaceuticals, INC. (2012). UTMB Compatibility Study Dakin’s Solutions 0.025% w/v. Indianapolis, IN: Suchinda Stithit, Director of Regulatory Affairs.

VI. Dates Approved or Amended

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VII. Contact Information
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