

## Hygiene Management of Devices with Water Circuits such as Heater-Cooler Units in the Operating Room

There have been scattered cases of *Mycobacterium Chimaera* infection after cardiac surgery, and a causal relationship cannot be denied with devices equipped with water circuits such as heater-cooler used in the operating rooms. Please reconfirm their hygiene managements.



### 【Points to note】

1. If heated circulating water is left in the water tank, organism will proliferate in the tank, causing biofilm formation, which can lead to mold, bacteria (like Legionella, Acinetobacter, etc.) and water stains in the device, as well as contamination of the air inside the operating room.
2. There is a possibility of contact exposure to contaminated circulating water via fingers that come in contact with the circulating water of the water circuit with blood circuit connected to the patient.
3. Follow the recommended procedures for hygiene management in the instructions for use of the device.
4. Not only the circulating water in heater-cooler units for cardiopulmonary bypass, but circulating water used in devices such as patient heating, blood transfusion or infusion heating devices should also be confirmed for its appropriate management.



### Countermeasures

- Each facility should establish its own procedures for hygiene management of circulating water by referring to the instructions for use of each device, such as draining and drying the device after each use or replacing the water periodically.
- Similar procedure should be applied in the method of periodic cleaning of the water tubings and the device itself.
- Add items such as “No color change and turbidity of circulating water” to the daily inspection items for the device and circulating water as appropriate. When not in use, implement proactive hygiene management in a way that is possible at each facility, such as “keeping it dry”.

### Point

Please follow the procedures described in the instructions for use and conduct thorough periodic inspections for hygiene management of circulating water in devices and systems equipped with water circuits, such as heater-cooler units.