1.16 Infection Control Plan for Admission of Patients with Viral Hemorrhagic Fevers

Purpose

The purpose of this plan is to outline the necessary steps in triage, admission and care of a patient who has a known or suspected viral hemorrhagic fever.

Audience

Personnel in Admitting, Hospital Administration, Hospital Epidemiologist, Healthcare Epidemiology, Physicians, and staff in Emergency Department, Clinical Labs, Autopsy Services, and Employee Health

Notification by US Quarantine Station

- In the event that a case of suspected or confirmed viral hemorrhagic fever has been located in the area by the U.S. Quarantine Station, the officer in charge shall contact the Department of Healthcare Epidemiology to inquire about patient admission.
- The Department of Healthcare Epidemiology shall in turn contact:
  - Medical Director for the Emergency Department and attending physician in the Emergency Department;
  - Hospital Epidemiologist;
  - Hospital Administrator on call.
- The Medical Director and the attending physician in the UTMB Emergency Department shall be put in contact with the officer in charge of the U.S. Quarantine Station, for patient report and transfer instruction.

Patients with suspected or confirmed viral hemorrhagic fever shall only be admitted to UTMB upon written authorization of the officer in charge of the U.S. Quarantine Station.

Transfer From Another Facility

- In the event that a patient is transferred from another medical facility with a confirmed or suspected case of viral hemorrhagic fever, the attending physician in the Emergency Room shall notify:
  - Medical Director for the Emergency Department;
  - Hospital Epidemiologist;
  - Hospital Administrator on call.

Identification of Unsuspected

- In the event that a patient presents to the Emergency Room, not having been triaged from a referring hospital or U.S. Quarantine

Cases

port authority, with a history of recent travel to a territory endemic for hemorrhagic fevers, and is exhibiting signs and symptoms of viral hemorrhagic fever, the attending physician in the Emergency Room shall notify:

- Medical Director for the Emergency Department;
- Hospital Epidemiologist;
- Hospital Administrator on call.

Patient Isolation

- Patients shall be taken directly to the decontamination room (#2.1006) and placed on All Barrier precautions.
- Entrance to the room shall be limited to essential personnel. The attending physician and charge nurse shall be assigned to the case. Additional personnel shall be assigned at the discretion of the charge nurse and attending physician.
- All persons entering the patient's room shall wear:
  - Disposable gloves (double gloves)
  - Impermeable gown
  - Mask (HEPA)
  - Shoe covers
  - Leg covers (if copious fluids are present)
  - Eye protection (face shields, goggles or eyeglasses with side shields).

These items shall be readily available inside or directly outside the decontamination room.

- Needles and other sharps shall not be bent, broken or recapped prior to disposal into a puncture-resistant container.
- Bulk blood, suctioned fluids, secretions or excretions must be autoclaved, processed in a chemical toilet or treated with several ounces of household bleach for $\geq$5 minutes before disposal into a sanitary sewer.
- Protective clothing shall be donned prior to entering the room and removed before leaving the room.
- All material used for the patient's care (i.e., linen, pajamas, suction containers, tubing, needles (in puncture-resistant containers), needles and syringes, marking pens, swabs, etc.) shall be contained in leak-proof bags. The outside of the bags shall be

wiped down with disinfectants prior to transport. These bags containing contaminated materials shall be either autoclaved or incinerated prior to discarding.

- Disposable items worn by staff (i.e. gowns, gloves) shall be treated as above.

- Environmental surfaces or inanimate objects contaminated with blood, other body fluids, secretions, or excretions shall be cleaned and disinfected using standard procedures. Disinfection can be accomplished using hospital grade disinfectant or a 1:100 dilution of bleach.

- Accidental spills of potentially contaminated materials shall be liberally covered with a disinfectant (i.e., 5% sodium hypochlorite, 2% glutaraldehyde) and, left undisturbed for 30 minutes. All sharps (broken glass, plastic, needles) shall be picked up with forceps prior to wiping up the fluid. The fluid shall be wiped up with absorbent material soaked in disinfectant. Persons cleaning up such spills shall wear gloves, impermeable gown, mask, shoe covers and eye shields.

- Laboratory personnel shall follow the same strict barrier precautions as patient care personnel. Laboratory testing shall be the minimum necessary for diagnostic evaluation and patient care. Specimens shall be collected in fluid-tight containers and then placed in plastic bags that are sealed, and transported in a leak-proof container directly to the laboratory. Laboratory staff shall be alerted to the nature of the specimen. The specimens shall be handled in a class II biological safety cabinet, following biosafety level 3 practices. Serum used in laboratory tests shall be pretreated with polyethylene glycol p-tert-octylphenyl ether (Triton ® X-100)* for 1 hour. Routine procedures can be used for automated analyzers. Analyzers shall be disinfected as recommended by the manufacturer or with 500 parts per million solution of sodium hypochlorite † after use.

- If the patient dies, handling of the body shall be minimal. The corpse shall be wrapped in sealed, leak proof material, not embalmed, and cremated or buried promptly in a sealed casket.

- Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions or excretions shall immediately wash the affected skin surfaces with soap and water. Application of an antiseptic solution or handwashing product may be considered also, although the efficacy of this supplemental measure is unknown.

Mucous membranes shall be irrigated with a copious amount of water or eyewash solution. Exposed persons shall receive medical evaluation and follow-up management.

Surgery and Autopsy

If surgery or an autopsy is planned for a patient with viral hemorrhagic fever, Healthcare Epidemiology, the state health department and the CDC must be notified for specific quarantine instructions.

***Use 10 µl of 10% Triton ® X-100 per 1 µl of serum**
†1:100 dilution of household bleach (¼ cup to gallon water)

Reference

CDC. Update: management of patients with suspected viral hemorrhagic fever-United States. MMWR 1995: 44: 475-479.