I. PURPOSE:

A. To establish guidelines for Isolation Precautions at Montana State Hospital (MSH) to meet the following objectives:

1. to be epidemiologically sound;

2. to recognize the importance of all body fluids, secretions, and excretions in the transmission of nosocomial pathogens;

3. to contain adequate precautions for infections transmitted by the airborne droplet and contact routes of transmission.

II. POLICY:

A. MSH will have two tiers of isolation precautions.

1. In the first, and most important, tier are those precautions designed for the care of all patients in hospitals regardless of status. Implementation of these "Standard Precautions" is the primary strategy for successful prevention of health care-associated infection control.

2. In the second tier are precautions designed only for the care of specified patients. These additional "Transmission-based Precautions" are used for patients known or suspected to be infected or colonized with epidemiologically important pathogens which can be transmitted by airborne or droplet transmission or by contact with dry skin or contaminated surfaces.

III. DEFINITIONS:

A. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.

B. Transmission-based Precautions are designed for patients documented or suspected to be infected or colonized with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission in hospitals. Transmission-based Precautions are to be used
on an empiric, temporary basis until a diagnosis can be made; these empiric, temporary precautions are to be used in addition to Standard Precautions.

There are three types of Transmission-Based Precautions: Airborne Precautions, Droplet Precautions, and Contact Precautions. They may be combined for diseases which have multiple routes of transmission. When used either singularly or in combination, they are to be used in addition to Standard precautions.

C. **Universal Precautions** - the name the CDC uses to describe a very aggressive plan which treats all blood and body fluids as a source of contamination and infection.

### IV. RESPONSIBILITIES:

A. All Direct Care Staff - Need to be familiar with this policy and are responsible for following the procedures contained within it.

B. Staff Development Services - Document that direct care staff receive orientation to this policy upon employment and are updated annually.

C. Infection Preventionist - responsible for updating information when available and staff and patient education.

### V. PROCEDURES:

A. **FUNDAMENTALS OF ISOLATION PRECAUTIONS:**

A variety of infection prevention and control measures are used for decreasing the risk of transmission of microorganisms in hospitals. These measures make up the fundamentals of isolation precautions.

1. **Handwashing and Gloving:**

   a. Handwashing is the single most important measure for preventing the spread of infection.

   b. Washing hands as promptly and thoroughly as possible between patient contacts and after contact with blood, body fluids, secretions, excretions and equipment or articles contaminated by them is an important component of infection prevention control and isolation precautions. In addition to handwashing, gloves play an important role in the prevention of the spread of infection.

   c. Gloves are worn for three important reasons in hospitals. First, gloves are worn to provide a protective barrier and prevent gross contamination of the hands when touching blood, body fluids, secretions, excretions, mucous
membranes and non-intact skin; the wearing of gloves in specified circumstances to reduce the risk of exposures to bloodborne pathogens. Second, gloves are worn to reduce the likelihood microorganisms present on the hands of personnel will be transmitted to patients during invasive or other patient-care procedures involving touching a patient's mucous membranes and non-intact skin. Third, gloves are worn to reduce the likelihood the hands of personnel contaminated with microorganisms from a patient or a fomite can transmit these microorganisms to another patient. In this situation, gloves must be changed between patient contacts and hands washed after gloves are removed.

d. Wearing gloves does not replace the need for handwashing.

e. Failure to change gloves between patient contacts is an infection control hazard.

2. Patient placement:

a. Appropriate patient placement is an important component of isolation precautions. When possible, patients with highly transmissible or epidemiologically important microorganisms are placed in a private room with handwashing and toilet facilities to reduce opportunities for transmission of microorganisms. A private room is also important to prevent direct- or indirect-contact transmission when the source patient has poor hygienic habits, contaminates the environment, or cannot be expected to assist in maintaining infection control precautions to limit transmission of microorganisms.

b. When a private room is not available, infected patients are placed with appropriate roommates. Patients infected by the same microorganism can usually share a room provided:

- they are not infected with other potentially transmissible microorganisms; and,
- the likelihood of reinfection with the same organism is minimal.

c. Such sharing of rooms, also referred to as cohorting patients, is especially useful during outbreaks or when there is a shortage of private rooms. When a private room is not available and cohorting is not achievable or recommended, it is very important to consider the epidemiology and mode of transmission of the infecting pathogen and the patient population being served in determining patient placement. Under these circumstances, consultation with infection control professionals is advised before patient placement.

3. Transport of Infected Patients:
Limiting the movement and transport of patients infected with virulent or epidemiologically important microorganisms, and ensuring such patients leave their rooms only for essential purposes, reduces opportunities for transmission of microorganisms in hospitals. When patient transport is necessary, it is important that:

- appropriate barriers (i.e., mask, impervious dressings) are worn or used by the patient to reduce the opportunity for transmissions of pertinent microorganisms to other patients, personnel and visitors and to reduce contamination of the environment;

- personnel in the area to which the patient is to be taken are notified of the impending arrival of the patient and of the precautions to be used to reduce the risk of transmission of infectious microorganisms; and

- patients are informed of ways by which they can assist in preventing the transmission of their infectious microorganisms to others.

4. Mask, Respiratory Protection, Eye Protection, Face Shields:

Various types of masks, goggles and face shields are worn alone or in combination to provide barrier protection. A mask which covers both the nose and mouth, and goggles or face shields are worn during procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions to provide protection of the mucous membranes of the eyes, nose and mouth from contact transmission of pathogens. A surgical mask is generally worn to provide protection against spread of infectious large particle droplets transmitted by close contact and generally travel only short distances (up to 3 feet) from infected patients who are coughing or sneezing.

5. Gowns and Protective Apparel:

Various types of gowns and protective apparel are worn to provide barrier protection and to reduce opportunities for transmission of microorganisms in hospitals. Gowns are worn to prevent contamination of clothing and protect the skin of personnel from blood and body fluid exposures.

6. Patient-Care Equipment and Articles:

Many factors determine whether special handling and disposal of used patient-care equipment and articles is prudent or required, including the likelihood of contamination with infective material; the ability to cut, stick, or otherwise cause injury (needles, scalpels and other sharp instruments [sharps]); the
severity of the associated disease; and the environmental stability of the pathogens involved. Used sharps are placed in puncture-resistant containers; other articles are placed in an appropriate bag.

Contaminated reusable critical medical devices or patient-care equipment (i.e., equipment which enters normally sterile tissue or through which blood flows) or semi-critical medical devices or patient-care equipment (i.e., equipment which touches mucous membranes) are sterilized or disinfected (reprocessed) after use.

Noncritical equipment (i.e., equipment which touches intact skin) contaminated with blood, body fluids, secretions or excretions is cleaned and disinfected after use. Contaminated disposable (single-use) patient-care equipment is handled and transported in a manner which reduces the risk of transmission of microorganisms and decreases environmental contamination in the hospital. The equipment is disposed of according to hospital policy and applicable regulations.

7. Linen and Laundry:

Although soiled linen may be contaminated with pathogenic microorganisms, the risk of disease transmission is negligible if it is handled, transported and laundered in a manner which avoids transfer of microorganisms to patients, personnel and environments.

8. Dishes, Glasses and Cups and Eating Utensils:

No special precautions are needed for dishes, glasses and cups, or eating utensils. Either disposable or reusable dishes and utensils can be used for patients on isolation precautions. The combination of hot water and detergents used in hospital dishwashers is sufficient to decontaminate dishes, glasses and cups, and eating utensils.

9. Routine and Terminal Cleaning:

The room or cubicle and bedside equipment of patients or isolation precautions are cleaned using the same procedures used for other patients unless the infecting microorganism(s) and the amount of environmental contamination indicates special cleaning.

B. STANDARD PRECAUTIONS:

Use Standard Precautions, or the equivalent, for the care of all patients.

1. Handwashing:
a. Wash hands after touching blood, body fluids, secretions, excretions and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed between patient contacts, and when otherwise indicated to avoid transfer of microorganisms to other patients or environments.

b. Use a plain (nonantimicrobial) soap for handwashing except for specific circumstances.

2. Gloves:

a. Wear gloves (clean, non-sterile gloves are adequate) when touching blood, body fluids, secretions, excretions and contaminated items.

b. Put on clean gloves just before touching mucous membranes and non-intact skin. Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces, and before going to another patient. Wash hands immediately to avoid transfer of microorganisms to other patients or environments.

3. Mask, Eye Protection, Face Shield:

a. Wear mask and eye protection or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions and excretions.

4. Gowns:

a. Wear a gown (a clean, non-sterile gown is adequate) to protect skin and to prevent soiling of clothing during procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, excretions or cause soiling of clothing.

b. Select a gown appropriate for the activity and amount of fluid likely to be encountered. Remove a soiled gown as promptly as possible and wash hands to avoid transfer of microorganisms to other patients or environments.

5. Patient-Care Equipment:

a. Handle used patient-care equipment soiled with blood, body fluids, secretions and excretions in a manner which prevents skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to other patients and environments.
b. Ensure reusable equipment is not used for the care of another patient until it has been appropriately cleaned and reprocessed and single use items are properly discarded.

6. Linen:
   a. Handle, transport and process used linen soiled with blood, body fluids, secretions and excretions in a manner which prevents skin and mucous membrane exposures, contamination of clothing, and avoids transfer of microorganisms to other patients and environments.

7. Occupational Health and Bloodborne Pathogens:
   a. Take care to prevent injuries when using needles, scalpels and other sharp instruments or devices; when handling sharp instruments after procedures; when cleaning used instruments; and when disposing of used needles. Never recap used needles or otherwise manipulate them using both hands, or any other technique directing the point of a needle toward any part of the body. Do not remove used needles from disposable syringes by hand, and do not bend, break, or otherwise manipulate used needles by hand. Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers.

   b. Use mouthpieces, resuscitation bags, or other ventilation devices as an alternative to mouth-to-mouth resuscitation methods in areas where the need for resuscitation is predictable.

8. Patient Placement:
   a. Place a patient who contaminated the environment or who does not (or cannot be expected to) assist in maintaining appropriate hygiene or environmental control in a private room. If a private room is not available, consult with infection control professionals regarding patient placement or other alternatives.

C. AIRBORNE PRECAUTIONS:

1. Applies to patients known or suspected to be infected with a pathogen that can be transmitted by airborne route; these include but are not limited to:

   a. Tuberculosis, Measles, Chickenpox (until lesions are crusted over), Localized (in immunocompromised patient) or disseminated herpes zoster (until lesions are crusted over)
2. Patient Placement:

   a. Place the patient in a room having:
      
      - monitored negative air pressure in relation to the surrounding areas;
      
      - a minimum of six air changes per hour; and,
      
      - appropriate discharge of air outdoors or monitored high-efficiency filtration of room air before the air is circulated to other areas in the hospital.

   b. Keep the room door closed and the patient in the room.

   c. When a private room is not available, provide a facemask to the patient and place the patient immediately in a room with a closed door. Instruct the patient to keep the facemask on and to change the mask if it becomes wet, and initiate protocol to transfer the patient to a healthcare facility that has the recommended infection-control capacity to properly manage the patient.

3. PPE use:

   a. Wear a fitted N-95 of higher level disposable respirator, if available, when caring for the patient: the respirator should be donned prior to room entry and removed after exiting the room.

   b. If substantial; spraying of respiratory fluids is anticipated, gloves and gown as well as goggles or face shield should be worn.

   c. Perform hand hygiene before and after touching the patient and after contact with respiratory secretions and/or body fluids and contaminated objects/materials: note: use soap and water when hands are visibly soiled.

   d. Instruct patient to wear a facemask when exiting the room, avoid coming into close contact with other patients, and practice respiratory hygiene and cough etiquette.

   e. The patient room should remain vacant for one hour before anyone enters, if staff enter the room during this one hour wait time they are required to use respiratory protection.

4. Patient Transport:

   a. Limit the movement and transport of the patient from the room for essential purposes only. If transport or movement is necessary, minimize patient
dispersal of droplet nuclei by placing a surgical mask on the patient, if possible.

D. DROPLET PRECAUTIONS:

1. Applies to patients known or suspected to be infected with a pathogen that can be transmitted by the droplet route: these include, but are not limited to:
   a. Respiratory viruses (influenza), pertussis, and Neisseria meningitides (group A streptococcus) for the first 24 hours.

2. Place the patient in a private room. When a private room is not available, place the patient in a room with patient(s) who has/have active infection with the same microorganism, but with no other infection (cohorting). When a private room is not available maintain spatial separation of at least 3 feet between the infected patient and other patients and visitors.

3. PPE use:
   a. Wear a face mask when working within 3 feet of the patient. The face mask should be donned upon entering the patient’s room.
   b. If substantial spraying of respiratory fluids is anticipated, gloves and gown as well as goggles (or face shield in place of goggles) should be worn.
   c. Perform hand hygiene before and after touching the patient and after contact with respiratory secretions and contaminated objects/materials; note: use soap and water when hands are visibly soiled.
   d. Instruct patient to wear a facemask when exiting the patient room, avoid coming into close contact with other patients, and practice respiratory hygiene and cough etiquette.
   e. Clean and disinfect the patient room accordingly.
   f. Patient Transport:

   Limit the movement and transport of the patient from the room to essential purposes only. If transport or movement is necessary, minimize patient dispersal of droplets by masking the patient, if possible.

E. CONTACT PRECAUTIONS:

1. Applies to patients with any of the following conditions:
• Presence of stool incontinence (may include patients with norovirus, rotavirus, of clostridium difficile c-diff), draining wounds, uncontrolled secretions, pressure ulcers, or presence of ostomy tubes and/or bags draining body fluids.

2. Prioritize placement of patients in private room when available. When a private room is not available, place the patient in a room with patient(s) who has/have active infection with the same microorganism, but with no other infection. When this is not achievable, consider the epidemiology of the microorganism and the patient population when determining patient placement.

3. PPE use:
   a. Wear gloves when touching the patient and the patient’s immediate environment or belongings.
   b. Wear a gown/shoe coverings if substantial contact with the patient or environment is anticipated.
   c. Perform hand hygiene after removal of PPE: note: use soap and water when hands are visibly soiled, or after caring for patients with known or suspected infectious diarrhea.
   d. Instruct patients with known or suspected infectious diarrhea to use a separate bathroom if available.
   e. Clean and disinfect the patient room accordingly.

VI. REFERENCES: MSH Policy -- Standard Precaution; Consultants Network, Inc.; Department of Health & Human Services Center for Disease Control & Prevention

VII. COLLABORATED WITH: Infection Preventionist, Director of Nursing Services, Medical Director


IX. DISTRIBUTION: All hospital policy manuals.

X. ANNUAL REVIEW AND AUTHORIZATION: This policy is subject to annual review and authorization for use by either the Administrator or the Medical Director with written documentation of the review per ARM § 37-106-330.
XI. FOLLOW-UP RESPONSIBILITY: Infection Preventionist.

XII. ATTACHMENTS: None

Signatures:

John W. Glueckert           Thomas Gray, MD
Hospital Administrator      Medical Director