SUBJECT: BODY SUBSTANCE ISOLATION (BSI): THE STANDARD OF CARE

RATIONALE: Isolation systems are designed to prevent the spread of microorganisms among patients, personnel and visitors. Body Substance Isolation is a system of isolation in which barrier techniques are used for specific patient interactions rather than for specific diagnosis. Body Substance Isolation requires use of hand hygiene and barrier precautions for ALL persons whether or not they have a diagnosed or suspected infection. Compliance with Body Substance Isolation, as the standard of care and infection prevention, protects the health care provider, the patient, and others from unrecognized or asymptomatic cases as well as recognized or symptomatic cases.

SCOPE: Hospital-wide

DEFINITIONS: Barrier Equipment – gloves, gowns, eye/face protection

EQUIPMENT: Standard Barrier Equipment supply in each patient room and patient treatment area.

Hygiene sanitizer dispensers at each patient room (outside or inside room entrance).

POLICY:

I. Body Substance Isolation (BSI) is the standard of care for all patients to prevent contact spread of infectious agents between patients,
caregivers, and others in the Craig Hospital environment.

II. A private room is assigned if the patient soils the general room environment with moist body substances, or if designated by the hospital infection control team (physician and/or infection control coordinator).

III. VRE, MRSA and other antibiotic resistant organisms (AROs) are managed with BSI unless otherwise indicated.

IV. Respiratory/Cough Etiquette is recommended for all individuals with signs and symptoms of a respiratory infection.

V. Airborne Precautions, negative-air pressure room and respirator requirement, (only respirator fitted and trained persons in the room) for patients with airborne communicable diseases. This includes measles, chickenpox and active tuberculosis. Negative-air pressure rooms are not available at Craig Hospital; patient will be transferred to another facility if a negative-air pressure room is needed.

VI. BSI Plus is enhanced precautions for patients if secretion and epidemiological situation indicate.

PROCEDURE:

I. BODY SUBSTANCE ISOLATION

A. HAND HYGIENE is the single most important control measure to break the chain of infection and to prevent transmission of infectious agents from person to person. To promote improved hand hygiene practices in healthcare facilities and reduce healthcare acquired infections CDC has issued new guidelines.

1. Utilization of alcohol-based, waterless hand rubs
   a. reduce bacterial counts on the hands more effectively than plain or antimicrobial soaps.
   b. are more accessible.
   c. require less time to use.
   d. less skin irritation and dryness.

2. Use soap and water hand washing especially if hands are visibly dirty and/or patient care involves fecal contact, known C diff, or diarrhea. Effective soap and water hand wash requires:
   a. 10–15 seconds vigorous friction to all lathered surfaces (entire hand, between fingers, around fingernails, wrist area).
   b. Complete rinse in a flowing stream of water, fingers pointed downward to provide good drainage of rinse water into the sink.
c. Thorough drying with clean paper towel.

3. Hand hygiene frequency (with either alcohol gel or soap and water)
   a. Hand hygiene after contact with any patient.
   b. Wash hands after situations in which hands will likely become contaminated, especially contact with mucous membranes, blood and body fluids, secretions or excretions; and after touching contaminated items.
   c. Hand hygiene before gloving for the performance of invasive procedures (placement of IV catheters, indwelling urinary catheters, or other invasive procedures)
   d. Hand hygiene immediately after removing gloves.
   e. Wash hands pre food contact
   f. Wash hands after all personal hygiene and bathroom functions.

4. Skin care regimen with moisturizer allows the moisturizer time to act before being washed off.
   a. Beginning of shift, hand hygiene and moisturizer
   b. Pre and post lunch or breaks, hand hygiene and moisturizer
   c. End of shift, hand hygiene and moisturizer
   d. Pre going to bed, hand hygiene and moisturizer

B. GLOVES

1. Must be worn if:
   a. anticipated contact with moist body substances, mucous membranes, tissue, non-intact skin of all patients.
   b. contact with surfaces and articles visibly soiled/contaminated by body substances.
   c. performing venipuncture or other vascular access procedures (IV starts, phlebotomy, in-line blood draws)
   d. handling specimens when contamination of hands is anticipated (emptying urine bags, suctioning)

2. Don gloves at patient care site, immediately prior to task

3. Remove and discard gloves after each individual task involving body substance contact, before leaving the patient.

4. Gloves should not be worn away form the site of use to other areas, i.e. nursing station, to handle charts, to handle clean linen, clean equipment or patient care supplies, or in hallways or elevators.

5. Perform hand washing or hand sanitizing as soon as possible after glove removal.

C. GOWNS to protect skin and to prevent soiling of clothing during procedures and patient care activities that are likely to result in splashing or contamination with body fluids or substances.
1. Wear gown if gross liquid, blood, or body substance contamination is likely (fecal incontinence, diarrhea)
2. Wear gown for fecal incontinence, diarrhea, and known C diff.
3. Wear gown for wet/soiled patient bed environment contact and care.
4. Remove and discard gown before leaving the immediate patient care use area.

D. MASK, EYE PROTECTION, FACE SHIELDS: Facial protection is required when there is a potential of facial exposure to blood or other body fluids due to spraying, splashing or aerosolization.
1. Wear mask to empty urine bags if splashing is likely and you cannot distance, or position your face away from the splashing.
2. Consider a mask for suctioning when copious secretions are involved.
3. Wear mask/facial protection if patient has an open trach and is likely to cough into your face.
4. Wear mask/facial protection for any event likely to cause splashing, spraying, or aerosolization, (bronchoscope, tracheostomy tube change, etc)

E. RESPIRATORY/COUGH ETIQUETTE
1. Cover your cough/sneeze with tissue or cough/sneeze into your arm.
2. Do not contaminate your hands with respiratory secretions; if hands contaminated, do hand hygiene prior to touching anything.
3. Stay home if you have respiratory secretions and a fever 100.4F or greater.

F. SHARPS MANAGEMENT:
1. Sharps safety controls, in compliance with the Needle stick Safety and Prevention Act, are defined and implemented to include: sharps puncture proof disposal units, self-sheathing needles, sharps with engineered sharps injury protection, needle less systems.
2. Sharps are discarded immediately or as soon as feasible into impervious biohazard containers. The department of use is responsible that containers are routinely replaced when no more than 2/3 full.

G. EXPOSURE TO BLOOD OR BODY FLUIDS:
Exposure is defined as a contaminated needle stick or sharps injury; or contact with blood or body fluids to an open wound, on-intact skin or mucous membrane.
Following any contact of body areas with blood or other body fluids, immediately wash skin sites with soap and water; flush mucous membranes with water.

Report to Occupational Health exposure to blood, visibly blood contaminated body fluids and other potentially infectious materials associated with synovial fluid, pleural fluid, peritoneal fluid, amniotic fluids and all body tissues within first two hours post exposure.

H. RESUSCITATION DEVICES:
Available in patient rooms and patient areas where the need for resuscitation might occur.

I. BLOOD OR BODY FLUID SPILLS:
Clean up promptly with hospital approved disinfectant or a 1:10 bleach solution. Contaminated equipment, environmental and work surfaces must be cleaned and decontaminated after contact with blood or potentially infectious materials. Contamination is defined by secretion/body substance contact; not by whether a patient is known to be infected or not infected.

J. ENVIRONMENTAL CONTROL:
Glove and clean immediately “patient zone” environmental (bed rails, bedside equipment, commode chairs, sink areas) that are contaminated with blood or body fluids. Approved hospital disinfectants include 1:10 bleach solution, or hospital approved disinfectant.

All “patient zone” high touch areas (likely to be touched by patient, visitors, and patient care providers) are emphasized in the daily Environmental Service cleaning protocol.

K. PATIENT CARE EQUIPMENT:
Glove and handle patient care equipment soiled with blood or other body fluids, secretions or excretions in a manner that prevents skin and mucous membrane exposure, contamination of clothing or contamination to other patients and the environment.

L. LINEN:
All soiled, used linen is considered contaminated and is contained in the plastic fluid proof bags provided by the linen service. Handle soiled linen in a manner that prevents skin and mucous membrane exposure, prevents contamination of clothing and the environment. Contain linen at the location of use. Secure bag and send to the soiled linen area via the laundry chute or hand carry if necessary.
M. **REGULATED WASTE:**
Contain in Red Biohazard (or orange/red) bag system. Immediately contain in regular plastic bag at collection site and take to red bag system in the dirty utility area for final disposal. Regulated waste includes:
1. Liquid or semi liquid blood or other potentially infectious materials, e.g. blood, semen, vaginal secretions, cerebrospinal synovial pleural pericardial, peritoneal and amniotic fluids. In Dental procedures, only saliva.
2. Contaminated items that would release blood or fluids in a liquid or semi-liquid state if compressed (“squish and drip test”).
3. Items that are caked with dried blood or other potentially infectious materials and are capable to releasing these materials during handling.
5. Pathological and microbiological waste containing blood or other potentially infectious materials.

N. **NON REGULATED WASTE:**
Includes moist containers and tubing that have been drained or emptied and is contained in the regular plastic bag waste system.

O. **PERSONAL PROTECTIVE EQUIPMENT (PPE):**
Gloves, gowns, eye and facial protection are located in the patient rooms, in the supply area of each Nursing unit and other departments as needed. The department is responsible to determine and maintain supply requirements.

II. **ADDITIONAL PRECAUTION REQUIREMENTS**

A. **AIRBORNE PRECAUTIONS**
A private, negative air pressure room is required. Craig patients requiring Airborne Precautions will be transferred to a facility with appropriate negative air pressure system. Diseases that require Airborne Precautions: measles, TB, Chicken Pox (varicella) disseminated zoster in the immunocompromised host.

B. **BODY SUBSTANCE ISOLATION PLUS (BSI Plus)**
In situations where it is determined that extra precautions are required, Hospital Epidemiology (Infectious Disease Physician, Craig Infection Control) will institute BSI Plus for specific organisms and/or patients.

Appropriate signage and equipment will be placed at patient’s room.
C. PROTECTIVE/LEUKOPENIC ISOLATION
   1. Body Substance Isolation as the standard isolation.
   2. Use of gown, gloves and masks does not reduce the incidence of infection in compromised patients
      a. Patient may benefit from a private room (not with other patients with infection, secretion issues)

References:
Harborview Medical Center, Epidemiology/Infection Control, University of Washington
University of Utah Hospitals and Clinics
University of California San Diego (UCSD)
University of California San Francisco (UCSF)
Mid Michigan Medical Center
Penn State EMS
Centers for Disease Control, Hospital Infection Control Practice Advisory Committee Body Substance Isolation definition.