

**DIVISION OF DEVELOPMENTAL DISABILITIES SERVICES  
COMMUNITY SERVICES/ ADULT SPECIAL POPULATIONS**

**Health Care Services Protocol # 5**

**Management of Methicillin Resistant Staphylococcus Aureus**

Prepared by: Lisa Graves, RN, BSN and Susan Poore, RN, CDDN

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Medical Director's Approval Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**I. OBJECTIVE**

The objective of this protocol is to outline infection control practices to prevent and/or control the transmission of Methicillin Resistant Staphylococcus Aureus (MRSA) and provide an informational resource for staff.

**II. DEFINITIONS**

MRSA- Methicillin Resistant Staphylococcus Aureus. Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

Infection- is a condition whereby the bacteria has invaded a body site, is multiplying in tissue, and is causing clinical manifestations of disease, such as fever, suppurative wound, pneumonia or other respiratory illness or symptoms, or other signs of inflammation (warmth, redness, swelling). Infection is confirmed by positive cultures from sites such as blood, urine, sputum, or wound.

Colonization- is the presence, growth, and multiplication of the organism in one or more body sites without observable clinical symptoms or immune reaction. A 'carrier' refers to an individual who is colonized with MRSA. MRSA colonization can occur on the skin surface, wound or pressure ulcer surface, in the sputum, or in the urine. One of the most common sites of colonization in both health care worker and residents is the anterior nares.

Staph Aureus - often referred to simply as "staph," are bacteria commonly carried on the skin or in the nose of healthy people. Sometimes, staph can cause an infection. Staph bacteria are one of the most common causes of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be treated without antibiotics (also known as antimicrobials or antibacterials). However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

### **III. STANDARDS**

#### **A. Transmission**

All Staph Aureus, including MRSA, is commonly spread by skin-to-skin contact. The main mode of transmission of MRSA is via hands which may become contaminated by contact with a colonized or infected person, colonized or infected body sites of the personnel themselves, devices, items, or environmental surfaces contaminated with body fluids containing MRSA. MRSA is primarily spread through physical contact, not through air. MRSA is often found in hospitals, nursing homes and other health-care facilities. MRSA is also found in the community. Anyone can get infected with MRSA, even people who have not had recent medical care.

#### **B. Risk Factors**

Individuals may be at increased risk for MRSA if their body's immune system is weak and unable to fight off infections. Several factors may contribute to increased risk for MRSA infection in some people. The most common factors are having frequent contact with the healthcare system, having a chronic illness such as diabetes, cancer, HIV/AIDS, being very young or very old, frequent use of antibiotics, having an open wound, dermatitis, or skin lesions, living in a crowded environment, poor nutrition, and poor hygiene.

#### **C. Diagnosis**

MRSA is identified by a bacterial culture and antibiotic sensitivity of the suspected site of infection or colonization (i.e., blood, sputum, urine, wound, and exudates). Two criteria are necessary for the organism to be identified as MRSA. First, the organism is identified as *Staphylococcus aureus* or coagulase positive *Staphylococcus* species. Second, the antibiotic sensitivity test will show that the organism is resistant to oxacillin, methicillin, nafcillin, cephalosporins, imipenem, and/or other beta-lactams.

#### **D. Treatment**

Since MRSA is resistant to many antibiotics, it can be difficult to treat; however, some antibiotics can successfully cure MRSA. Antibiotic treatment will be ordered by the health care practitioner, the entire course of medication must be taken as prescribed. MRSA carriers usually do not need treatment.

#### **E. Infection Control Guidelines to Prevent the Spread of Methicillin Resistant *Staphylococcus Aureus***

##### ***General***

- Hand washing is the most effective way to stop the spread of MRSA. Caregivers should wash their hands with soap and water after physical contact with the infected or colonized individual and before leaving the home.

##### ***Proper Hand Washing Technique:***

1. Wet hands with water
  2. Apply soap
  3. Rub hands together vigorously for at least 15 seconds, covering all surfaces of hands and fingers
  4. Rinse hands with water and dry with disposable towel
  5. Use towel to turn off faucet
- If there is no soap and water available, an alcohol based hand sanitizer may be used.

### ***Use of Alcohol-based Hand Sanitizer***

1. Apply to palm of one hand, rub hands together covering all surfaces of hands and fingers until dry
  2. Volume will be based on manufacturers' guidelines
  3. Alcohol-based hand sanitizer designed for reducing the number of viable microorganisms on the hands will contain 60%--95% ethanol or isopropanol alcohol.
- Disposable gloves should be worn if contact with body fluids is expected and hands should be washed after removing gloves.
  - If the infection is in a wound, the area should be kept covered with a dry bandage. The bandage should be changed as ordered by the physician.
  - The individual's environment should be cleaned routinely and when soiled with body fluids. (Follow DDDS Community Services/Special Populations Disinfecting and Sanitizing Policy)
  - Individuals must not share towels, razors, toothbrushes, or other personal items.
  - Public sauna, hot tubs and pool should not be used by anyone diagnosed with MRSA.
  - When possible, dedicating the use of non-critical patient-care equipment and items such as stethoscope, thermometer, etc. to a single individual to avoid sharing between individuals.
  - Personal care services (i.e., haircut, manicure) should be avoided by anyone diagnosed with MRSA.
  - Infected or colonized individuals should be permitted to participate in group activities if draining wounds are covered, bodily fluids are contained, and the individual observes good hygiene practices as directed by the individual's physician.

### ***Linens***

- Linens should be changed routinely and when ever soiled with wound drainage or body fluids.
- Healthcare staff must wear disposable gloves whenever handling soiled linen or clothing.
- When handling soiled linen hold the linen away from the body to prevent contaminating your clothing.
- If linens or clothing are contaminated with body fluids or wound drainage wash them separately from other clothing.
- Wash sheets, towels, and clothes with water and laundry detergent. Drying clothes in a hot dryer, rather than air drying, also helps kill bacteria in clothes.

### **Waste**

- Contaminated waste items, such as bandages and tissues, can be thrown into a normal trash receptacle.
- To prevent others from coming in contact with this waste, make sure it is in a securely tied plastic bag.

### **IV. Staff Responsibility**

- MRSA is considered to be a reportable communicable disease and falls under the Guidelines & Standards of the DDDS Communicable Disease Policy.
- MRSA shall be promptly reported to the assigned nurse. The assigned nurse in consultation with the Nurse Supervisor or State Nursing Administrator should review specifics of the case to assure proper follow up and that appropriate infection control measures are instituted.

### **V. References**

1. Association for Professional in Infection Control & Epidemiology, Inc. (2007, March). *Guide to the elimination of methicillin-resistant staphylococcus aureus (MRSA) transmission in hospital settings*. APIC, Washington, DC
2. Community-Associated MRSA Information for the Public. (ND). Retrieved December 5, 2007 from: [http://www.cdc.gov/ncidod/dhqp/ar\\_mrsa\\_ca\\_public.html](http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html)
3. Guideline for Hand Hygiene in Health-care Settings. *MMWR* 2002; Vol. 51, No. RR-16.
4. Multidrug-Resistant Organisms in Non-Hospital Healthcare Settings. (2000, December). Retrieved October 10, 2007 from: [http://www.cdc.gov/ncidod/dhqp/ar\\_multidrugFAQ.html](http://www.cdc.gov/ncidod/dhqp/ar_multidrugFAQ.html)

**Delaware Health and Social Services  
Division of Developmental Disabilities Services  
Community Services/Adult Special Populations**

Signed Policy in Office

Title: Communicable Diseases

Approved By: of PARC Chair

*Division Director*

Written/Revised by: Policy & Records Committee

Original Date: December 14, 2007

Revision Date: \_\_\_\_\_

This policy replaces the June 2000 Infection Control policy.

**I. PURPOSE**

To establish requirements that individuals who are at risk of/or have contracted a communicable disease receive timely and effective treatment. Proper infection control measures shall occur as well as required notification of communicable diseases to the Division of Public Health.

**II. POLICY**

Community Services/Adult Special Populations (CS/ASP) endorses the proper use of appropriate infection control measures in order to minimize the risk of exposure to communicable diseases, as well as the prompt treatment of individuals who have communicable diseases.

**III. APPLICATION**

CS/ASP staff, contracted agency staff, and shared living providers.

**IV. DEFINITIONS**

- A. Communicable Disease: An infectious disease that can be transmitted from person to person, or animal to person. Other similar terms used interchangeably are contagious disease and infectious disease.
- B. Contact: A person who has been potentially exposed to a communicable disease. Exposure may occur through their proximal association or physical contact with an infected person, infected animal, or a contaminated environment or surface.
- C. Notifiable Disease: A communicable disease or condition required to be reported to the Division of Public Health in accordance with state public health regulations. Refer to Exhibit A for complete list.

**V. STANDARDS**

- A. Individuals exhibiting symptoms of a communicable disease shall be examined by a physician or nurse practitioner as soon as arrangements can be made.
- B. Individuals shall receive treatment as prescribed by their physician or nurse practitioner.
- C. Notifiable diseases should be reported by the physician or nurse practitioner to the appropriate Division of Public Health official pursuant to the referenced *Regulations for the Control of Communicable and Other Disease Conditions* (Exhibit A).

- D. Staff who are aware of an individual's potential exposure to a communicable disease shall report such to the assigned nurse/on-call designee, prior to the end of his/her working shift.
- E. Communicable diseases shall be immediately reported to the Assigned Nurse/on-call designee; refer to Exhibits A for list of relevant communicable diseases. The Assigned Nurse in consultation with the Nurse Supervisor or Statewide Nursing Administrator should review specifics of the case to assure proper clinical follow-up and appropriate infection control measures are instituted.
- F. The nurse supervisor shall contact the appropriate Division of Public Health (DPH) office to assure that any notifiable disease has been properly reported. If such reporting has not taken place; then the nurse supervisor should inform the Statewide Nursing Administrator, who will consult with the DDDS Medical Director.
- G. As needed, a consult from the DDDS Medical Director can be obtained.
- H. CS/ASP staff, contracted agency staff, and shared living providers shall ensure compliance of established infection control policies, such as the Sanitizing and Infection Control policy, for the management of the individual's disease, environment, and contacts, as directed by established Health Care Service Protocols/CS policies. Any required treatment shall be received through accessing the individual's primary health care provider.
- I. When a communicable disease is diagnosed in an individual receiving residential or day service, any required training of applicable staff shall be immediately completed by a designated health care practitioner or DDDS Nurse/Designee as assigned by the Nurse Supervisor or Statewide Nursing Administrator.

## VI. REFERENCES

- 1. Delaware Health and Social Services, Division of Public Health. (2006, February). *Regulations for the Control of Communicable and Other Disease Conditions. Document No. 35-05-20/06/09/05.*
- 2. Delaware Long Term Care Residents Protection Guidelines. (2007, April). *Delaware Regulations for Neighborhood Homes for Persons with Developmental Disabilities.*
- 3. Community Services/Adult Special Populations policy; Sanitizing and Disinfection

## VII. SYNOPSIS

This policy explains the requirements for ensuring that people who are at risk of/or have contracted a communicable disease receive treatment in a timely and effective manner, infection control measures are taken and proper reporting of notifiable diseases are made to the Division of Public Health.

**VIII. EXHIBITS**

A. State of Delaware List of Notifiable Diseases

**EXHIBIT A****STATE OF DELAWARE LIST OF NOTIFIABLE DISEASES**

Acquired Immune Deficiency Syndrome (AIDS) (S)	Human Papillomavirus (S)
Amoebiasis	Influenza
Anthrax (T)	Influenza Associated Infant Mortality (T)
Arboviral human infections (including West Nile Virus, Eastern Equine Encephalitis, etc...)	Kawasaki Syndrome
Babesiosis	Lead Poisoning
Botulism (T)	Legionellosis
Brucellosis (T)	Leptospirosis
Campylobacteriosis	Listeriosis
Chancroid (S)	Lyme Disease
Chickenpox (Varicella); including Herpes Zoster	Lymphogranuloma venereum (S)
Chlamydia (S)	Malaria
Cholera (toxigenic Vibrio cholerae 01 or 0139) (T)	Measles (T)
Coccidioidomycosis	Melioidosis
Creutzfeldt-Jakob Disease (T)	Meningitis
Cryptosporidiosis	Meningococcal Infections (all types) (T)
Cyclosporiasis	Money Pox (T)
Cytomegalovirus (neonatal only)	Mumps (T)
Dengue Fever (T)	Norovirus
Diphtheria (T)	Nosocomial (Healthcare Associated) Disease Outbreak (T)
Enterhemorrhagic E. Coli including but not limited to E. Coli 0157:H7 (T)	Pelvic Inflammatory Disease (N. gonorrhea, C. trachomatis, or unspecified) (S)
Ehrlichiosis	Pertussis (T)
Encephalitis	Plague (T)
Enterococcus species, Vancomycin resistant (A)	Poliomyelitis (T)
ESBL resistance (Extended-Spectrum B-lactamases) (A)	Psittacosis
Foodborne Disease Outbreaks (T)	Q Fever
Giardiasis	Rabies (man, animal) (T)
Glanders (T)	Reye Syndrome
Gonorrhea (S)	Rheumatic Fever
Granuloma inguinale (S)	Ricin Toxin (T)
Guillain-Barre	Rickettsial Disease
Hansen's Disease (Leprosy)	Rocky Mountain Spotted Fever
Hantavirus (T)	Rubella
Haemophilus influenzae, invasive	Rubella (congenital) (T)
Hemolytic Uremic Syndrome (T)	Salmonellosis
Hepatitis A (T)	Severe Acute Respiratory Syndrome (SARS) (T)
Hepatitis B	Shigatoxin Production
Hepatitis C	Shigellosis
Hepatitis Other	Silicosis
Herpes (congenital) (S)	Smallpox (T)
Herpes (genital) (S)	Staphylococcal Enterotoxin (T)
Histoplasmosis	Staphylococcal aureus, Methicillin Resistant (MRSA) (A)
Human Immunodeficiency Virus (HIV) (S)	Staphylococcal aureus, Vancomycin Intermediate or Resistant (VISA, VRSA) (T) (A)
	Streptococcal Disease, invasive group A or B (T)



Streptococcus pneumoniae, invasive (sensitive and resistant (A)	Typus Fever (endemic flea borne, louse borne, tick borne)
Syphilis (S)	Vaccine Adverse Reaction
Tetanus (T)	Vibrio, non-cholera
Toxic Shock Syndrome (Streptococcal or Staphylococcal)	Viral Hemorrhagic Fevers (T)
Toxoplasmosis	Waterborne Disease Outbreaks (T)
Trichinellosis	Yellow Fever (T)
Tuberculosis ((T)	Yersiniosis
Tularemia (T)	
Typhoid Fever (T)	

(T) eport by rapid means (telephone, fax or other electronic means)

(S) Sexually transmitted disease, report required within 24 hours

(A) Drug Resistant Organisms required to be reported within 48 hours

Others – report required within 48 hours