SUBMITTAL TO THE RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER GOVERNING BOARD COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

ITEM: 15.2
(ID # 25907)
MEETING DATE:
Tuesday, September 10, 2024

FROM : RUHS-MEDICAL CENTER

SUBJECT: RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER: Approve Policies, All Districts. [Total Cost: $0]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Review and approve the attached Medical Center and Clinics Policies.

ACTION:Consent

Jennifer Cruikshank
Jennifer Cruikshank, Chief Executive Officer – Health System 8/28/2024

MINUTES OF THE GOVERNING BOARD

On motion of Supervisor Gutierrez, seconded by Supervisor Perez and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes:	Jeffries, Spiegel, Washington, Perez and Gutierrez
Nays:	None
Absent:	None
Date:	September 10, 2024
xc:	RUHS-Medical Center

Kimberly A. Rector
Clerk of the Board
By: Deputy

SUBMITTAL TO THE RIVERSIDE UNIVERSITY HEALTH SYSTEM MEDICAL CENTER GOVERNING BOARD OF DIRECTORS COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	$0	$ 0	$0	$ 0
NET COUNTY COST	$ 0	$ 0	$ 0	$ 0
SOURCE OF FUNDS: N/A			Budget Adjustment: No	
			For Fiscal Year: 23/24 - 24/25	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Impact on Citizens and Businesses

The Riverside University Health System Medical Center (RUHS MC) is a licensed and accredited acute care hospital serving the needs of County residents since 1893. RUHS MC currently has two campuses – one in Moreno Valley and one on County Farm Road in the City of Riverside.

As an acute care hospital RUHS MC is required by the State of California to have a "governing body" separate from its administrative leaders and medical staff leadership. The "governing body" is "the person, persons, board of trustees, directors or other body in whom the final authority and responsibility is vested for conduct of the hospital." 22 CCR §70035. (See also 42 CFR 482.12 and Joint Commission Standard LD.01.03.01) The Board of Supervisors serves as the "governing body" for the hospital.

Various regulatory requirements mandate that the Governing Board participate in the leadership and decision-making of the Medical Center by reviewing and approving its policies relating to certain topics.

RUHS-MC is committed to furnishing a safe, accessible, effective and efficient environment consistent with its mission, services and applicable governmental mandates. This includes fostering the protection, safety and well-being of patients, employees, staff and visitors during natural or man-made disasters and ensuring to the greatest extent possible, adherence to our social responsibility and commitment to the community.

Impact on Residents and Businesses

The RUHS Medical Center offers a 439-bed providing adult, Pediatric and Neonatal Services, including a Level 1 Trauma Center, the county's only Pediatric Intensive Care Unit, a Stroke Center, with over 40 specialty care clinics, as well as a Medical and Surgical Center featuring state-of-the-art Outpatient Surgical, Diagnostic and Imaging Equipment, Rehabilitation Services, and an Outpatient Pharmacy. The RUHS Emergency Treatment Services/Inpatient Treatment Facility at the Arlington Campus located in Riverside is a 77-bed inpatient Psychiatric Treatment

Facility. The integrated healthcare continuum is fortified with 14 RUHS-CHCs conveniently located throughout the county which work in close partnership with RUHS-BH and RUHS-PH to offer access to comprehensive high-quality and integrated primary, Behavioral Health, Specialty Care, Dental Care and Health Promotion services.

Training future healthcare leaders is fundamental to our commitment to serving our community as well as our mission as a safety net institution. An efficient, well-functioning medical center providing care of high quality creates many positive benefits for Riverside County citizens and its businesses.

ATTACHMENTS:
Attachment A: BOS Update 3.18.24 to 06.26.24
Attachment B: BOS Policies 03.18.24 to 06.26.24

Jacqueline Ruiz, Principal Analyst 9/5/2024

Gregg Gu, Chief of Deputy County Counsel 8/29/2024

Submission for Board of Supervisors

Policies for Approval

3/18/2024-6/26/2024

Name	Version Effective Date
HW 151 Precleaning for Transport to Sterilization.pdf	3/19/2024
HW 407 Hand and Nail Hygiene.pdf	3/31/2024
HW 667 Use of Ultrasound Gel.pdf	3/31/2024
HW 201 Capital Assets.pdf	4/16/2024
HW 420 Dress Code.pdf	4/16/2024
HW 604.1 Universal Protocol.pdf	4/16/2024
HW 869 Antimicrobial Prophylaxis for Surgery.pdf	4/16/2024
HW 131 Patient Belongings.pdf	5/15/2024
HW 559 Handling of Patient Linen.pdf	5/15/2024
HW 1107 Tuberculosis TB Control Plan.pdf	5/24/2024
HW 601.1 Mental Health Patient Rights.pdf	5/24/2024
HW 632 Patient Discharge Planning and Patient Discharge.pdf	5/24/2024
HW 665 Emergency Cardiovascular Care Training Courses.pdf	5/24/2024
HW 677 IV Thrombolytics For Use in Acute Ischemic Stroke.pdf	5/24/2024
HW 689 Code Stroke.pdf	5/24/2024
HW 695 Stroke Program Scope of Service.pdf	5/24/2024
HW 699 Latex Sensitivity.pdf	5/24/2024
HW 822 Downtime Procedures Inpatient Infusion Center Pharmacy.pdf	5/24/2024
HW 851 Handling of Hazardous Medication.pdf	5/24/2024
HW 876 Management of Personal Insulin Pumps and Continuous Glucose Monitors D	6/18/2024
HW 601.5 Healthcare Decisions for Unrepresented Patients.pdf	6/20/2024
HW 602.4 Use of Levonorgestrel for Patients Unable to Give Consent.pdf	6/20/2024
HW 690 Care of the Patient Receiving Endovascular Angiography of the Brain with or \	6/20/2024
HW 852 Medication Administration.pdf	6/20/2024
HW 865 Hazardous Drug Spill Deactivation.pdf	6/20/2024
HW 886 Intranasal Medication Administration via Mucosal Atomization Device.pdf	6/20/2024
HW 818 Adult Inpatient Management of Solid Organ Transplant Pharmacotherapy.pdf	6/26/2024

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 151	Page 1 of 2
Title: Pre-Cleaning Instruments for Transporting for Sterilization/Disinfection	**Effective Date:** 3/19/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By: Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☒ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 This policy is Housewide for Riverside University Health System- Medical Center, excluding departments that conduct operative procedures.

2. PROCEDURE

2.1 RUHS – Medical Center departments will pre-soak dirty instruments immediately after use and place disposable sharps in the sharps container.

2.2 Each department will a pre-soaking station equipped with easily accessible gloves, face shield/goggle, protective gown and eye wash kit.

2.3 Staff member pre-soaking the instruments will:

a. Don the gloves, face shield/goggles, and apron before beginning designate.

b. Place the dirty instruments in a container labeled: “Soiled instruments with enzymatic humectant” or “Biohazard”, arranging them to permit contact of cleaning solutions with all surfaces of the instruments.

c. Open and spray the instruments directly with the enzymatic humectant, covering all surfaces.

d. Place a lid on the container and set it aside to soak. As long as all surfaces have been completely covered with the enzymatic humectant it is not necessary to reapply, as moisture is retained for 72 hours.

e. Remove the personal protective equipment and wash hands thoroughly in compliance with RUHS – Medical Center policy HW 407.10 Hand and Nail Hygiene.

2.4 Transport the container with the soaking instruments for cleaning and sterilization to the Central Processing Department (CPD) **prior to the end of shift**

2.5 The CPD will exchange the container with dirty instruments soaked in enzymatic humectant for a **clean and labeled container**.

3. REFERENCES

3.1 Infection Control Policies: # IC 9-03, at Infection Prevention and Control Manual on-line, 2020, RUHS-MEDICAL CENTER Portal.

3.2 Guideline for Cleaning and Care of Surgical Instruments. In: *Guidelines for Perioperative Practices*. Denver, CO: AORN, Inc; 2021.

3.3 *Prepzyme material safety data sheet* (Ruhof corporation Jan. 1, 2012) http://www.ruhof.com

3.4 *Prepzyme instructions for use* (Ruhof corporation Jan. 1, 2012) http://www.ruhof.com

3.5 RUHS – Medical Center policy HW 407.10 Hand and Nail Hygiene

3.6 Central Processing Policy C-23 on Decontamination of Trays and Instruments

3.7 ***CDC Toolkit: Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings*** **https://www.cdc.gov/legionella/wmp/toolkit/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Flegionella%2Fmaintenance%2Fwmp-toolkit.html**

3.8 **CDC Emergency Water Supply Planning Guide for Hospitals and Healthcare Facilities https://www.cdc.gov/healthywater/emergency/ewsp.html**

Document History:

Prior Release Dates: 5/2/2018, 3/20/2021	**Retire Date:** N/A
Document Owner: Infection Control	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
3/19/2024	Re-sign		

RIVERSIDE UNIVERSITY HEALTH SYSTEM
Housewide

	Document No: 407	Page 1 of 6
Title: Hand and Nail Hygiene	**Effective Date:** 3/31/2024	☐ **RUHS – Behavioral Health** ☒ **RUHS – Community Health Centers** ☒ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☒ **Procedure** ☐ **Guideline**

1. DEFINITIONS

1.1 Pathogen: a bacterium, virus, or other microorganism that can cause disease.

1.2 Subungual: situated or occurring under a fingernail or toenail.

1.3 WHO: The World Health Organization (WHO) is a specialized agency of the United Nations that is concerned with international public health.

2. BACKGROUND

2.1 Pathogen transmission in the health care setting primarily occurs via the contaminated hands of health care workers. Hand hygiene is one of the most important measures for prevention of health-care-associated infections.

2.2 Studies show high levels of bacteria subungually. The most frequently isolated organisms are coagulase-negative staphylococci, gram-negative rods (including *Pseudomonas* spp.), corynebacteria, and yeasts. These pathogens were isolated even after careful hand hygiene. Artificial nails increase the risk of harboring gram-negative pathogens. The length of nails is also a substantial risk factor and should be kept trimmed to less than ¼ inch in length beyond the fingertip.

2.3 Studies reveal that areas underneath rings are more heavily colonized than areas without rings. Rings increase the risk for carriage of gram-negative bacilli and S. aureus by the wearer. Wearing rings results in greater transmission of pathogens in health-care settings.

3. PROCEDURE

3.1 Hand Hygiene for Healthcare Providers

a. Handwashing/hand antisepsis shall be performed using water and agency approved liquid soap for a minimum of 15 to 30 seconds or until hands are dry if using alcohol based hand gel:

   i. At the beginning and end of every shift.

   ii. Before and after providing care or performing any procedures to/on a patient, including touching anything in the patient's immediate environment, including the medical record.

iii. Before and after eating.

iv. Before entering and prior to leaving any patient room and special care areas.

- Neonatal Intensive Care Unit (NICU) requires 3-minute scrub when entering.

v. Any time the hands are visibly soiled.

vi. Before donning gloves, prior to inserting a central intravascular catheter, inserting an indwelling urinary catheter or other invasive device that does not require a surgical procedure.

vii. After removing gloves.

viii. After toileting.

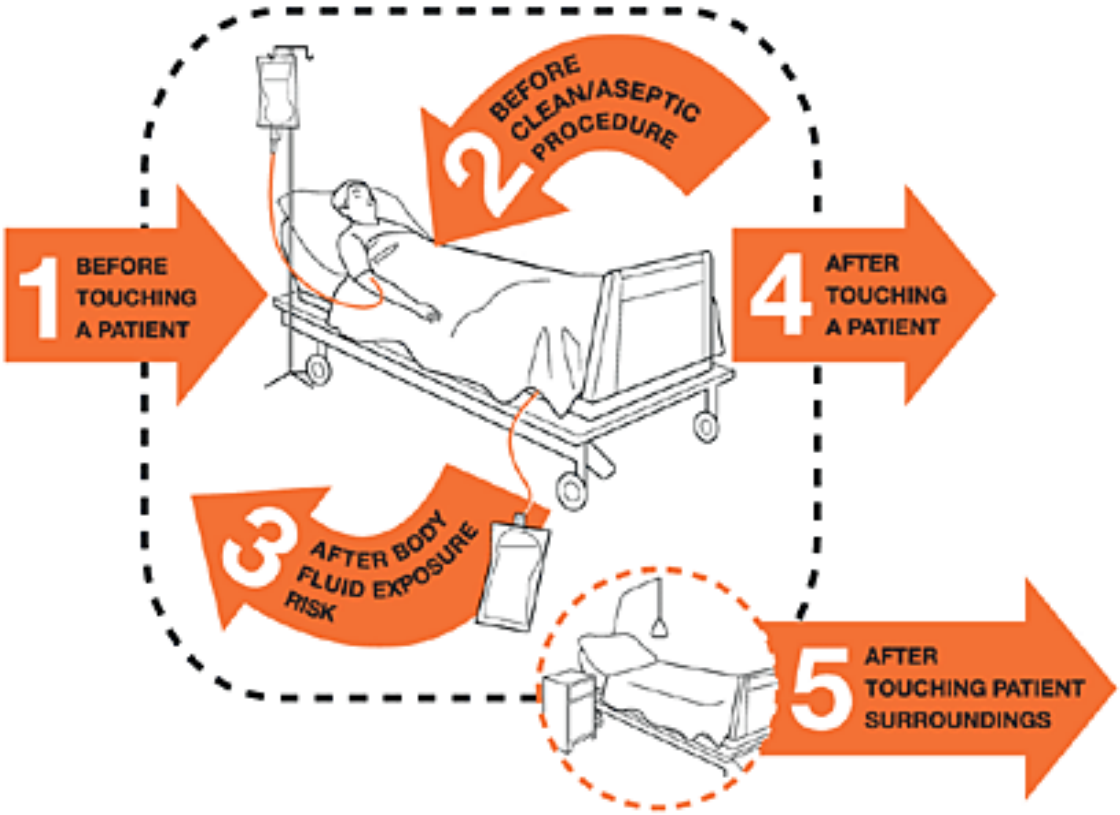
3.2 **My 5 Moments for Hand Hygiene (a World Health Organization tool)**

a. WHO's 'My 5 Moments for Hand Hygiene' approach defines the key moments when health-care workers should perform hand hygiene.

b. This evidence-based, field-tested, user-centered approach is designed to be easy to learn, logical and applicable in a wide range of settings.

c. This approach recommends health-care workers to clean their hands:

- Before touching a patient.
- Before clean/aseptic procedures.
- After body fluid exposure/risk.
- After touching a patient.
- After touching patient surroundings.



3.3 Hand Hygiene for Non-Healthcare Providers

a. Handwashing/hand antisepsis shall be performed using water and agency approved liquid soap for a minimum of 15 to 30 seconds or until hands are dry if using alcohol based hand gel:

- Upon cleaning or working in a patient care room or treatment area, and at the beginning and end of every shift.
- Before and after eating.
- Before entering and prior to leaving any patient room and entering special care areas (NICU)
- After toileting.

3.4 Hand Sanitizing gels

a. Can be used up to five (5) times before hands are to be washed with soap and water.

b. Can be used if hands are not visibly soiled.

c. If gloves did not tear/rip in the performance of job.

d. Before and after providing care or performing any procedures to/on a patient, including the taking of vital signs.

e. Before donning and after removing gloves.

4. PROCEDURES

4.1 Handwashing

a. Wet hands with water. Note: avoid using hot water, as repeated exposure may increase the risk of dermatitis (chapped skin).

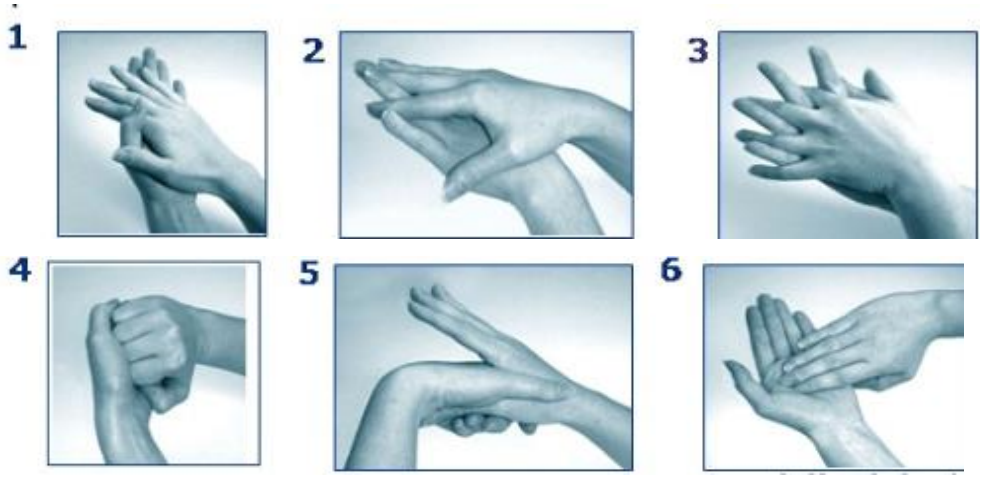
b. Apply the recommended amount of hospital approved liquid soap.

c. Rub hands together vigorously to create enough friction to work up a large amount of lather (this should take between 15-30 seconds), being sure to cover all surfaces of the fingers, hands and wrists. (See fig. below)

d. Rinse thoroughly under running water.

e. Dry fingers, hands and wrists thoroughly with disposable paper towel(s).

f. Once hands are dry, discard paper towel(s) in regular trash container.



4.2 Hand Sanitizing Gels

a. Squirt the manufacturer's recommended quantity of hand gel into the palm of one hand.

b. Rub hands together vigorously, being sure to cover the palmar and dorsal aspects of fingers and both hands and up to the wrist until hands are dry.

c. Be sure hands are dry prior to donning a new pair of gloves.

4.3 Hand-care

Nails

a. Keep cuticles trimmed and moisturized.

b. Natural nail tips are not to exceed more than ¼ inch in length beyond the fingertip.

c. Nail polish should not be chipped. If it is, it should be removed before providing tasks related to patient care.

d. The wearing of artificial fingernails, extenders, gels, silk wraps, tips, or nail jewelry is not allowed on employees/staff members who perform direct (e.g., Nurse, Physician) or indirect care (e.g., EVS, Nutritional Services).

Rings, Watches and Jewelry

a. Rings with stones or irregular surfaces may not be worn by employees/staff members who perform direct (e.g., Nurse, Physician) or indirect (e.g., EVS, Nutritional Services) patient care. A plain, smooth band without stones may be worn.

b. Pay careful attention to ring and ring finger during hand hygiene if plain band is worn.

c. Watches with expandable bands may be worn if they are pushed up the forearm during patient care and hand hygiene. It is recommended that watches be affixed to the employees/staff member's uniform.

d. Bracelets may not be worn.

Hands

a. Moisturize hands frequently to prevent hands from drying and cracking.

b. Cover with appropriate dressing/bandage, any cuts/scratches on the fingers, hands, or wrists before providing patient care.

Gloves

a. Hand hygiene is to be performed immediately before donning and immediately after removing gloves.

b. Wear gloves whenever contact with blood or body fluids, mucous membranes and non-intact skin is likely to occur.

c. Remove gloves after providing patient care.

d. Do not wear the same pair of gloves for the care of more than one patient, or for servicing more than one patient room.

e. Do not wash gloves between uses with different patients.

f. Change gloves during patient care if moving from a contaminated body site to a clean body site on the same patient..

g. Do not wear gloves while walking in hallways unless required by the task being performed, i.e., taking a red bag to dirty utility room for disposal. Once task is completed, gloves are to be removed and discarded in proper waste container. Hand hygiene is to be performed.

5. REFERENCES

5.1 **World Health Organization Guidelines on Hand Hygiene in Health Care**, First Global Patient Safety Challenge Clean Care is Safer Care, ISBN 978 92 4 159790 6, Geneva, Switzerland, 2009.

5.2 **John M. Boyce, MD; Didier Pittet, MD. Guideline for Hand Hygiene in Health-Care Settings:** Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. Infect Control Hosp Epidemiol 2002;23[suppl]:S3-S40.

Document History:

Prior Release Dates: 11/1/2004, 12/28/2016, 7/25/2019, 4/1/2021	**Retire Date:** N/A
Document Owner: Infection Prevention and Control	**Replaces Policy:** Infection Prevention and Control Policy IC-9, release dates 11-1988; 11-2005; 04-2009; 06-2010; 7-2011

Date Reviewed	**Reviewed By:**	**Revisions Made Y/N**	**Revision Description**
3/2024	Manager, Infection Prevention and Control	Yes	Minor wording clarification changes, re-sign

RIVERSIDE UNIVERSITY HEALTH SYSTEM - MEDICAL CENTER

Housewide

	Document No: 667	Page 1 of 3

Title:	**Effective Date:**	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Use of Ultrasound Gel	3/31/2024	
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. POLICY

The policy of Riverside University Health System - Medical Center (RUHS - Medical Center) is to provide guidance regarding ultrasound coupling gel use to minimize risks of iatrogenic and hospital acquired infections.

2. DEFINITIONS

2.1 **Critical Procedures**: where the transducer is in contact with **sterile tissue** (e.g., needle aspiration, needle localization, and tissue biopsy; all ultrasound examinations performed on neonates; CVC or PICC line placements; intraoperative imaging procedures, and other interventions).

2.2 **Semi-Critical Procedures**: where the transducer is in contact with **mucous membranes** (e.g., esophageal, gastric, rectal, and vaginal) whether a biopsy is performed or not, or **non-intact skin** (near fresh surgical sites; scanning of infected or broken skin and wounds).

2.3 **Non-Critical Procedures:** where the transducer is in contact with **intact skin** (in the absence of infections or other skin pathology).

3. GUIDELINES

3.1 INTRODUCTION

a. Infection Prevention and Control is an integral part of the safe and effective use of ultrasound in medicine. Although aspects of ultrasound coupling gel management and administration have been implicated in outbreaks of nosocomial infections with a variety of pathogenic organisms, recommendations for reducing gel-related infections vary.

b. Ultrasound gels are generally composed of a polymer to establish the desired viscosity, and other substances such as tri-ethanolamine to stabilize the pH, deionized water, a moisture retaining agent such as a glycol derivative, and often preservative agents.

c. As bacteria are able to adjust their metabolism to a less favorable environment, these gel compounds are more than sufficient to allow bacterial survival and multiplication.

d. Even sealed ultrasound gel bottles must not be assumed to be sterile unless clearly stated on packaging. Whilst the risk of infection transmission through contaminated US gel appears to be generally low, several outbreaks related to medical gels have been published.

3.2 How should ultrasound gel be managed?

a. Determine if ultrasound gel is necessary for the procedure or examination. Gel-free viral barriers now exist for ultrasound.

b. If the use of ultrasound gel is necessary, consider CDC recommendations to minimize infection risk:

1. For **Critical Procedures** where the transducer is in contact with **sterile tissue** (e.g., needle aspiration, needle localization, and tissue biopsy; all ultrasound examinations performed on neonates; CVC or PICC line placements; intraoperative imaging procedures, and other interventions):
    - ***Use single use, sterile gel, packet***.
2. For **Semi-Critical Procedures** where the transducer is in contact with **mucous membranes** (e.g., esophageal, gastric, rectal, and vaginal) whether a biopsy is performed or not, or **non-intact skin** (near fresh surgical sites; scanning of infected or broken skin and wounds):
    - ***Use single use, sterile gel, packet***
3. For **Non-Critical Procedures** where the transducer is in contact with **intact skin** (in the absence of infections or other skin pathology):
    - ***it is preferred single use, non-sterile gel, packet*** **or**
    - ***multi-use, non-sterile gel (i.e., small bottle)***.

3.3 How to reduce the spread of infection?

a. Discard unused portions of a single-use gel packet; do not use on other patients.

b. If your Unit/Department chooses to use “multi-use, non-sterile open gel container” in a small bottle for “non-critical procedures”, where the transducer will be in contact with intact skin, then:

- **Date**:
    - The US Gel bottles should be dated with the “**open date**” and “**expiration date**”
    - Expiration date should be “**28 days”** of the open date, or “**before”** based on the manufacturer expiration date.
- **Disposable bottles**:
    - Once the gel bottle is empty, it must be **discarded**. Never re-fill an empty US Gel bottle, as this can lead to microorganism growth, pathogen transmission, cross-contamination, and possible outbreaks.
- **Cross contamination**:
    - Ensure the tip of a multi-use gel bottle does not come in contact with the patient, transducer, and any ancillary equipment. If the multi-use gel bottle tip comes in contact, discard the multi-use gel bottle.

- If a multi-use gel bottle is used with an **isolation patient** (MRSA, COVID-19, VRE, CRE, ESBL, *Candida auris*, etc.), **discard** the multi-use gel bottle.
- Gel bottles should not be stored upside down in warmers as the gel dispensing tip may become contaminated through patient contact or indeed through contact with pathogens surviving/multiplying at the bottom of warmers.
- Appropriately seal the container when not in use.

▪ **Temperature of gel bottle**:

- Heating of gel is **discouraged**. Dry heat should be the only method used to warm gel.
- Gel warmers should be cleaned and disinfected regularly according to the manufacturers' recommendations. Electrical devices should be unplugged and devices may need to cool down prior to decontamination.
- Gels should be stored at room temperature. The multiplication of pathogens in gel bottles increases considerably when kept warm for patient comfort, thus turning bottle warmers into incubators. Therefore, if gel warmers are used, only bottles for immediate use should be warmed.

4. REFERENCES

4.1 Oleszkowicz SC, Chittick P, et al. Infections associated with use of ultrasound transmission gel. Proposed guidelines to minimize risk. *Infect Control Hosp Epidemiol.* 2012;33(12):1235–1237. doi: 10.1086/668430

4.2 Chittick P, Russo V, SimsMet al (2012) Outbreak of Pseudomonas Aeruginosa respiratory tract infections in cardiovascular surgery associated with contaminated ultrasound gel used for transesophageal echocardiography—Michigan, December 2011–January 2012. *MMWR Morb Mortal Wkly Rep* 61:262–264

4.3 Christiane M. Nyhsen et al. Infection prevention and control in ultrasound - best practice recommendations from the European Society of Radiology Ultrasound Working Group. *Insights Imaging.* 2017 Dec; 8(6): 523–535. Published online 2017 Nov 27. doi: 10.1007/s13244-017-0580-3

4.4 Society of Diagnostic Medical Sonography Guidelines for Infection Prevention and Control in Sonography: Reprocessing the Ultrasound Transducer. 2020.

4.5 "Is Your Gel Safe? Ultrasound Gel-Related Infections Prompt New FDA Guidelines — Compass Clinical Consulting." Compass Clinical Consulting, 28 June 2012, www.compass-clinical.com/is-your-gelsafe-ultrasound-gel-related-infections-prompt-new-fda-guidelines/. Accessed 1 Feb. 2020.

Document History:

Release Dates: 3/31/2021		**Replaces Policy:** None	
Date Reviewed	**Reviewed By:**	**Revisions Made** Y/N	**Revision Description**
3/31/2024			Re-sign

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 201	Page 1 of 7
Title: Capital Asset Property Control	**Effective Date:** 4/16/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By: Jennifer Cruikshank CEO/Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 To establish standard guidelines, controls and procedures for the acquisition, transfer, disposal and financial reporting of capital assets for Riverside University Health System – Medical Center.

2. DEFINITIONS

2.1 Capital assets are fixed assets and intangible assets of significant value having a utility/use which extends beyond the current year and are broadly classified as land, infrastructure, buildings and improvements, equipment, livestock, and intangible assets.

2.2 Significant value means the cost of the asset meets or exceeds the threshold amounts as described in this policy. The capitalization thresholds provided below applies to all assets acquired by, or donated to, RUHS – Medical Center.

3. POLICY

3.1 All RUHS – Medical Center assets shall be acquired, recorded, tracked and retired in accordance with the Board of Supervisors' Policy H-6 and the Auditor-Controllers' Standard Practice Manual (SPM) – Section 5 – Capital Asset Policies.

3.2 Department Manager Responsibilities

a. Department managers are responsible for keeping an up-to-date and accurate account of their department capital assets. Refer to Capital Asset User Department Flow Chart (Attachment H) for steps when taking inventory, and necessary forms to complete and submit when moving, disposing or transferring of department assets.

3.3 Cost Basis

a. Capital asset costs include purchase price or construction cost (for certain capital assets) as well as any other direct costs attributed to have the capital asset in place/service (e.g. shipping, set-up, testing, and other ancillary costs).

b. For donated capital assets basis refer to County of Riverside Office of the Auditor-Controller Standard Practice Manual Policy 509.

c. Assets should be capitalized when they meet the following minimum values:

Capital Asset	Minimum Value for Capitalization:
Equipment	**$5,000**
Real Property:	
Buildings	$1*****
Structures (sheds, monuments)	$1*****
Land	$1*****
Land Improvements (walls, fences, landscaping)	$1*****
Improvements/betterments	**$5,000**
Capital Leases	**Same as prescribed for leased assets**
Construction-in-progress (CIP)	
Building (Structures)	$5,000
Equipment	$5,000
Intangible assets (internally generated)	$150,000*******
Intangible assets (external)	$5,000
Museum & art collections**	$5,000

*****Holding value

******Generally, if museum and art collection assets meet all of the following, they are not required to be capitalized:

- Held for public exhibition, education, or research in furtherance of public service rather than financial gain,
- Protected, kept unencumbered, cared for, or preserved, and
- Subject to an organizational policy that requires the proceeds from sales of the items be used to acquire other items for collections.

***If the project has an estimated budget cost of at least $150,000, its costs should be charged to CIP from the project inception.

3.4 Equipment

a. Consists of property that does not lose its identity when removed from its location, is not changed materially, or expended in use. Subclasses in the account include computer equipment, shop and yard equipment, construction equipment, fire equipment, aircraft equipment, etc.

b. Movable Equipment is not permanently affixed to, or part of a building and may consist of more than one component (e.g. computer, keyboard, mouse, monitor). The assembled components may be considered one item and recorded as a single capital asset. Component items that form one working equipment system are combined for capitalization purposes. Additions to equipment that become either component parts or permanently connected to existing equipment are then also defined as equipment and should be capitalized regardless of cost.

c. Fixed Equipment is permanently affixed to a building, but is separate from the building itself (e.g. light fixtures, wall-to-wall carpet, water fountains, fire control apparatus, fume hoods and built-in display cabinets).

d. Equipment purchased during new construction or renovations must be nonexpendable, tangible personal property having an economic useful life of more than one year. During the normal course of business, these items would be expensed solely because they did not meet the County's $5,000 threshold.

3.5 Average Life Expectancy

a. The average life description provided below is only a guideline and should serve as a starting point for estimating the useful life of a capital asset. The following factors should also be considered when determining the appropriate useful life of an asset.

- Quality – Similar assets may differ substantially in quality and useful life because of differences in materials, design, and workmanship (e.g. an asphalt road will not have the same useful life as a concrete road).

- Application/Usage – The useful life of a similar asset may vary depending upon its intended use (e.g. a public safety vehicle's useful life may vary from that of a park and recreation vehicle).
- Environment – Environmental differences among governments can have an impact on the useful life of their capital assets (e.g. a road in a climate subject to extremes in temperature is likely to have a useful life that differs from that of a similar road located in a more temperate climate).

3.6 Depreciation Policy

a. Depreciation is the allocation of the total acquisition cost of the capital asset over its estimated useful life. Depreciation of capital assets is computed on a straight-line basis over their estimated useful life (capitalized cost divided by useful life). Fiscal Services is responsible for assigning the useful life of capital assets based on usage. The estimated useful life of capitalized equipment is the period over which services are expected to be rendered by the asset. Depreciation is then calculated and recorded on a monthly basis for financial reporting purposes through the PeopleSoft AM Module.

3.7 Increasing the Useful Life of a Capital Asset

a. Certain improvements provide additional value to an asset which can be noted by increasing the estimated useful life of the asset or increasing the asset's ability to provide service(s). These costs will be capitalized (if they meet the capitalization policy threshold) and depreciated according to the assets useful life.

3.8 Acquisition of Capital Equipment

a. The acquisition of movable equipment begins with the creation of the purchase order and should itemize the equipment being purchased. Complete SPM Form AM-5 Capital Asset Form (Attachment A).

b. Fiscal Services will must review the purchase order, vendor invoice, accounts payable voucher, and proper capital asset account, to ensure that the above criteria has been met.

c. Record the capital asset in the PeopleSoft AM Module within 30 calendar days from receipt of the asset.

d. Equipment purchased with non-County monies will follow the capitalization requirements specified statutorily or defined in grant requirements.

e. Equipment acquired under a capital lease purchase must be entered as a capital lease and capitalized in the PeopleSoft AM module.

f. Fiscal Services will submit the SPM Form AM-5 Form to the Auditor-Controller's Office (ACO) within 30 calendar days of acquisition of the item(s).

3.9 Tagging Moveable Equipment

a. The primary purpose of tagging capital assets is to maintain an accurate identification of the assets. Accurate tagging is significant in identifying individual assets, aid in annual physical inventory, control the physical location, and track the maintenance of assets.

b. All assets should be received through Materials Management, they are to tag the capitalized equipment and packing slip immediately. Materials Management will add the asset tag number in the header comment in the PeopleSoft AM Module

during the receiving process. Materials Management is to hand deliver to Fiscal Services all documents related to the receipt of an asset within five (5) business days.

c. If equipment is delivered directly to a department, it is the responsibility of the department to contact Materials Management in order to follow procedure "3.8 b." above.

d. Tags should be placed consistently on the same location of each similar type of asset. The tag should be placed where the number can be easily seen and identified without disturbing the operation of the item and will assist during the annual physical inventory.

e. Do not tag sensitive technical equipment or other items where tagging will affect its function, value, or the ability to return if under warranty.

f. For capital assets habitually coated with dirt and grease, certain medical and laboratory instruments where labeling would not be practical, asset tag numbers should be painted or engraved on the equipment.

g. If an item cannot be tagged, the asset serial number should be used as its tag number.

h. A file with supporting documentation of capital assets that cannot be tagged must be maintained by Materials Management.

3.10 Moving of Equipment

a. When an asset is to be permanently moved to another department or agency, an SPM Form AM-6 Form must be completed and include signatures from both the transferring department and the accepting department. Both departments must keep a copy of the completed SPM Form AM-6 Form for their records and a copy hand delivered to Fiscal Services within five (5) working days.

b. Fiscal Services will update the PeopleSoft AM Module and inform the ACO within thirty (30) calendar days of the transfer.

3.11 Disposition of Moveable Equipment

a. Surplus or obsolete assets may be disposed of by transferring to another department, exchanging, discarding/scrapping, trading-in, donating, or sale of the asset.

b. The department an asset is assigned to is responsible for completing a Surplus Property Transfer Form (Attachment B) when requesting a transfer or disposal of an asset. For transfers an SPM Form AM-6 Capital Asset Transfer Form (Attachment C) must accompany the Surplus Property Transfer Form. Fiscal Services will complete the SPM Form AM-7 Capital Disposition Form (Attachment D) once the Property Surplus Transfer Form is submitted to Fiscal Services. Materials Management is to be contacted for the transfer or disposal of the asset.

c. Once Materials Management has possession of the asset, a representative from both the user department and Materials Management will sign the Surplus Property Transfer Form and SPM Form AM-6 Form confirming Materials Management now has possession of the asset. The user department is to keep a copy of the forms related to the transfer or disposal for their records.

d. Materials Management is responsible for properly disposing of the asset within thirty (30) days of notification of disposal. Before disposing of an asset Materials Management is responsible for ensuring that the Surplus Property Transfer Form is completely filled out and all RUHS – Medical Center tagging and identification is removed and affixed to the Surplus Property Transfer Form.

e. Materials Management must ensure the party accepting and removing the asset from RUHS - Medical Center premises signs the Surplus Property Transfer Form. Materials Management will hand deliver the copy of the completed Surplus Property Transfer Form and SPM AM Forms to Fiscal Services within five (5) business days and keep a copy of all documentation for their records.

f. When disposing of electronic devices (e.g. hard drives, storage drives, memory sticks, computers, printers, copiers, servers) an Electronic Surplus Liability and Release Form (Attachment E) must be completed to confirm that all electronic items have been wiped clean of any data. The Electronic Surplus Liability and Release Form will be attached to the SPM Form AM-7 Form that will be completed by Fiscal Services.

g. Materials Management is responsible for keeping a master surplus list to be reviewed monthly with a Fiscal Services representative.

h. Fiscal Services will submit the appropriate SPM Form AM-6 and SPM Form AM-7 to the ACO within thirty (30) calendar days of any transfer or disposal of capital assets.

3.12 Physical Inventory of Equipment

a. Fiscal Services will provide each department manager a listing of all assets assigned to their department as recorded in the asset module on an annual basis. The purpose of this physical inventory is to verify the existence and condition of assets, and ensure the accuracy of capital asset inventory records. Discrepancies will be noted and investigated by Fiscal Services.

b. It is the responsibility of each department manager to verify that the asset inventory listing is completed accurately. Accurate completion is defined as identifying the existence of every asset on the capital asset listing and includes the correct asset tag number and serial number. The completed list is to be hand delivered to Fiscal Services within five (5) business day.

c. If an asset that had been transferred to another department or disposed of appears on the capital asset inventory listing, make the notation on the capital asset inventory listing and provide a copy of the completed Surplus Property Transfer Form and SPM Form AM-6 Form with appropriate signatures to Fiscal Services within five (5) working days.

d. The results of the inventory, including unresolved discrepancies will be reported by Fiscal Services to the ACO within thirty (30) calendar days of the inventory. Lost or stolen property must be reported as soon as the loss or theft is known.

e. If it is suspected that a capital asset has been stolen the department is to notify the Chief Financial Officer immediately for further action.

f. Lost Assets – In accordance with SPM 514, capital assets that cannot be located after a diligent and thorough investigation, and considered lost or unaccounted for, require a discharge of accountability from the Board of Supervisors (BOS) via a Form 11 approval if the current market value of the capital asset is over $1,000.

The fair market value can be obtained from a purchasing agent via e-mail to use as supporting documentation. The e-mail to the purchasing agent should clearly identify the asset in question. It must include the description, Asset ID#, serial number and any other information that may be pertinent.

i. If the fair market value is less than $1,000, attach the e-mail correspondence from the purchasing agent to the completed SPM Form AM-7 as supporting documentation.

ii. If the fair market value is more than $1,000, attach the e-mail correspondence from the purchasing agent and a copy of the BOS Minute Order to the completed SPM Form AM-7.

g. Theft – In accordance with SPM 514, capital assets that cannot be located after a diligent and thorough investigation, and considered stolen, must be reported to the local law enforcement agency and a police report must be obtained. RUHS – Medical Center shall provide a copy of the official police report and if applicable, the insurance claim of the stolen capital asset along with the completed SPM Form AM-7 to the ACO.

h. Demolition – In accordance with SPM 514, destruction or demolition of a capital asset property/structure shall be reported to the ACO as soon as the event has taken place. SPM Form AM-7 must be completed to document what occurred to the capital asset and attached as supporting documentation. BOS Minutes that mention the destruction or demolition event are an acceptable form of supporting documentation.

i. Removal of Construction-in-Progress (CIP) Projects – In accordance with SPM 514, RUHS – Medical Center will submit an SPM Form AM-8 (Attachment F) to the ACO for the removal of CIP projects costs. SPM Form AM-8 will be attached to the SPM Form AM-7 along with any additional documentation such as BOS Minutes, regulations, letters received or any other official documents that may provide additional support for the CIP removal.

3.13 Transfer Accountability

a. When there is a change in department management, the accountability of the department's capital assets is transferred to the new or interim department manager. Fiscal Services is to be informed of the management change to provide the new or interim department manager the capital asset listing for the department. It is the responsibility of the new or interim department manager to conduct a physical inventory of the equipment as outlined in item "3.11" above. The new or interim department manager will sign off on the capital asset listing assuming accountability of the assets. A copy is to be hand delivered to Fiscal Services within five (5) working days.

b. When circumstances allow, the outgoing department manager, in collaboration with the new or interim manager, will sign the capital asset listing acknowledging the transfer of the assets. Signatures are to be obtained as soon as a department is aware of a pending departure.

c. Department managers will receive updated capital asset listings when new assets are added. The updated capital asset listing will need to be signed off by the department manager signifying acceptance of the updated capital asset listing.

d. Upon a change in department head, the accountability of the department's capital assets must be transferred to either the new department head or the acting department head. Notification must be given to the ACO of the date of such change by completing an SPM Form AM-1 Inventory of County Property for Capital Assets (Attachment G). If available, the outgoing department head must sign the SPM Form AM-1 acknowledging the transfer of inventory. Signatures should be obtained as soon as a department is aware of a pending departure. The SPM Form AM-1 Form must also contain a current capital asset listing with evidence that a full inventory has been taken. These documents must be signed and submitted to the ACO Capital Asset Team in accordance with SPM 512.

4. REFERENCES

4.1 County of Riverside Office of the Auditor-Controller Standard Practice Manual Policy 509

5. ATTACHMENTS

5.1 Capital Asset Form AM-5

5.2 Surplus Property Transfer Form

5.3 Capital Asset Transfer Form AM-6

5.4 Capital Asset Disposition Form AM-7

5.5 Electronic Surplus Liability and Release Form

5.6 Construction-in-Progress Project Removal for Capital Assets Form AM-8

5.7 Inventory of County Property for Capital Assets Form AM-1

5.8 Capital Asset User Department Flow Chart

Document History:

Prior Release Dates: 9/21/2020	**Retire Date:** N/A
Document Owner: Chief Finance Officer	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
4/2024	Joe Zamora	N	
4/2024	David Santilli	N	Re-sign

CAPITAL ASSETS FORM
Acquisition, Betterment & Capital Leases

OFFICE OF THE AUDITOR-CONTROLLER

Complete and return to the Auditor-Controller's Office, Mail Stop #1050.

SPM FORM AM-5

"*" Indicates optional field	ASSET ID:

DEPARTMENT		BUSINESS UNIT	

FUND	DEPT ID	PROGRAM *	CLASS *	BGT PER	PROJ/GRANT *

CATEGORY	ACCOUNT	COST	

BOOK	FINANCING CODE	LOCATION	

ACQUSITION DATE	IN SERVICE DATE

VENDOR CODE:	VENDOR NAME

MANUFACTURER	SERIAL NUMBER	MODEL

ASSET DESCRIPTION:

DEPRECIATION METHOD	USEFUL LIFE (in months)	SALVAGE AMOUNT

PURCHASE AUTHORIZATION	VOUCHER

For Betterments Only:

BETTERMENT DESCRIPTION	
TOTAL BETTERMNT VALUE	

For Capital Leases Only:

LEASE ID#		LIABILITY AMOUNT (PRIN)	

ATTACH THE FOLLOWING AND CHECK THE BOX FOR EACH ATTACHMENT PROVIDED:

☐ P.O. s, ☐ Property schedules, ☐ Amortization schedules, ☐ Financing agreements,

☐ CAPITAL LEASE TEST.XLS

Prepared by: _____ **Phone:** _____

Date: _____ **Dept:** _____

Distribution: Department and Capital Asset Section of the ACO

January 2006 (This form replaces GEN FORM 34)
Capital Assets Form (pending approval)

County of Riverside
Purchasing and Fleet Services Department, Supply Services Division
Surplus Property Transfer Form

63759

Transfer From:

Agency/Department: _____

Street: _____

City: _____

Floor: _____

Contact Person: _____ Telephone _____

Transfer To:

Agency/Department: _____

Street: _____

City: _____

Floor: _____

(If items to be turned in exceed the number of available lines, separate sheets containing the information below can be used in lieu of multiple forms. Indicate "See Attached" in the "Description" block.

ITEM NUMBER	QTY.	PEOPLESOFT ASSET I.D. NUMBER	FIXED ASSET TAG NUMBER	MODEL NUMBER	SERIAL NUMBER	DESCRIPTION	SUPPLY DISPOSED OF PROPERTY (Y/N)	DATE DISPOSED	DISPOSED TO
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Signature of Authorization (Print/Sign): _____ Date: _____

Signature of Person Accepting Transferred Property: _____ Date: _____

All electronic devices with hard drive have been removed or formatted.
Electronic Surplus Liability Form must be included. Initials

INSTRUCTIONS:

1. When declaring property surplus, only Agency/Departmental personnel authorized to declare the property surplus are to sign this form for the agency/department.
2. After transferring the materials to another department or Supply Services. Assure that the department accepting the materials signs for the shipment and keep the pink copy for your records.
3. Complete a separate form for each County fixed asset.
4. For other than fixed assets, you may use this form for more than one item.
5. Do not complete the shaded section.
   Supply Services will complete this section and forward to the Auditor-Controller, Fixed Asset Section, after the material has been transferred to another agency/department or disposed of by Supply Services

CAPITAL ASSET TRANSFER

OFFICE OF THE AUDITOR-CONTROLLER

For intra-departmental and inter-departmental use. Both signatures are required when transferring an asset from one department to another. Submit completed form to the Auditor-Controller, Mail Stop #1050.

SPM FORM AM - 6
(POLICY #XXX)

TRANSFER AUTHORIZATION	TRANSFER OUT		
	Effective Date	Asset Number	
Department Name		Business Unit	
Department Head or Authorized Designee Signature	***Provide the information above, authorized signature, and forward to the department receiving the asset.***		
Date			

ACKNOWLEDGEMENT OF RECEIPT	TRANSFER IN		
	Acquisition Date	Asset Number	
Department		Business Unit	
	Description		
Department Head or Authorized Designee Signature			
Date			

Asset Class/ Category	Acquisition Code	New Financing Code	New Class/ Location	Serial Number

Model Number	Amount	Purchasing Authority No.

New Fund	New Dept ID	New Account	New Program	Fiscal Year

New Project/Grant	Profile ID	New Book

New Salvage Value	New Service Date	New Useful Life	New DEPR Method

Prepared By (Print Name) _____ **Date** _____ **Phone** _____

Auditor-Controller's Use

System Updated By:	Initials	Date

CAPITAL ASSET DISPOSITION

OFFICE OF THE AUDITOR-CONTROLLER

Complete and return to the Auditor-Controller's Office, Mail Stop #1050.

SPM FORM AM - 7
(POLICY #XXX)
PAGE ___ OF ___

Department	Business Unit	FY

Name of Contact _____ Phone _____

Disposition Codes							
Abandonment	AB	Disappeared Asset	DIS	Missing Asset	MIS	Scrapped Asset	SCR
Cannibalize	CAN	Disposal Due to Theft	DPO	Retirement by Sale	RTR	Traded in for Other Asset	TRD
Casualty Loss	CAS	Donated to External Group	DON	Returned to Inventory	RET		

	Category Code	Asset Number	Disposition Code	Quantity	Retire Amount	Proceeds	Removal Costs	Disposition Date
1								
	Other Information *(Description of equipment, serial number, etc.)*							
2								
	Other Information *(Description of equipment, serial number, etc.)*							
3								
	Other Information *(Description of equipment, serial number, etc.)*							
4								
	Other Information *(Description of equipment, serial number, etc.)*							
5								
	Other Information *(Description of equipment, serial number, etc.)*							

Authorized Signature for Deposition (Department Head or Designee) _____ **Date** _____

To Be Completed By the Auditor-Controller's Office

Central Asset Management Reviewer/Approver _____ **Date** _____

Distribution: **Original:** Auditor-Controller **Copy:** Originating Department

ELECTRONIC SURPLUS LIABILITY AND RELEASE FORM

DATE: _____

My signature below certifies that all Electronic Surplus items: Hard Drives, Memory, and drums (of Computers, printers, copiers, servers, cellulars, and/or fax machines) listed on the attached surplus form #_____ (Surplus Control Number), have been sanitized of all magnetic and electronic residues, that is all personal records and County information. All items have been identified and verified by respective IT Department prior to turning into the custody of the Surplus, Supply Services Division, Purchasing and Fleet Services Department.

X_____ X_____
PRINT NAME SIGNATURE

X_____
Department

NOTE: It is the responsibility of each respective Departments that turning in electronic Surplus have all storage devices, memory including drums removed, destroyed, and/or wiped cleaned, leaving no County data on them. All materials shall be clean; All County of Riverside Department identification labels shall be removed from materials/equipment prior to be turned in to Surplus.

Form Number - 116-428

SECTION	5
POLICY NUMBER	514
REVISED DATE	07/01/17

CONSTRUCTION-IN-PROGRESS PROJECT REMOVAL FOR CAPITAL ASSETS

OFFICE OF THE AUDITOR-CONTROLLER

Complete and return to the Asset Management Desk of the General Accounting Division, Mail Stop #1050.

SPM FORM AM – 8

BUSINESS UNIT	FUND NO.	DEPT ID	AGENCY/DEPARTMENT NAME

	Asset Number	Category Code	Project #	Quantity	Amount		Fiscal Year	Disposal Date
1								
	Other Information *(Reason/Comments)*							
2								
	Other Information *(Reason/Comments)*							
3								
	Other Information *(Reason/Comments)*							
4								
	Other Information *(Reason/Comments)*							
5								
	Other Information *(Reason/Comments)*							

Project Manager Name	**Title**	**Signature**	**Date**
Fiscal Chief/Officer/Manager Name	**Title**	**Signature**	**Date**
Department Director	**Title**	**Signature**	**Date**

INVENTORY OF COUNTY PROPERTY FOR CAPITAL ASSETS

OFFICE OF THE AUDITOR-CONTROLLER

Per Government Code section 24051, complete the upper portion and submit the certification on or before July 10th of each year with the Auditor-Controller's Office, Mail Stop #1050. In addition, if inventory is being transferred from one officer to another at other times in the fiscal year, please complete and submit the bottom portion with a current inventory list.

SPM FORM AM – 1
(POLICY # XXX)

BUSINESS UNIT	FUND NO.	DEPT ID	AGENCY/DEPARTMENT NAME

Certification

I certify, under penalty of perjury, that the attached county property inventory list is a true and correct inventory of the County of Riverside's property currently in my possession and/or control and for which I am responsible for as of the close of business on June 30, _____ .

_____ _____
Signature **Date**

_____ _____
Print Name **Official Title**

_____ , California
Executed At

Acknowledgement of Transfer of Inventory from Outgoing Officer

I acknowledge and certify, under penalty of perjury, each and all articles named in the attached inventory list of fixed assets is a true and correct inventory of the County of Riverside's property now in my possession and being transferred to the individual named below as of _____ .
(Specify date)

_____ _____
Signature **Date**

_____ _____
Print Name **Official Title**

_____ , California
Executed At

Acknowledgement of Receipt from Incoming Officer

I acknowledge and certify, under penalty of perjury, the receipt of each and all articles named in the attached inventory list of fixed assets as a true and correct inventory of the County of Riverside's property now in my possession and/or control and for which I am responsible for as of _____ .

(Specify date)

_____ _____

Signature **Date**

_____ _____

Print Name **Official Title**

_____ **, California**

Executed At

Riverside University HEALTH SYSTEM

CAPITAL ASSET USER DEPARTMENT FLOW CHART

Moving of Equipment

Asset is to be permanently moved to another department or agency.

User department completes and signs an SPM Form AM-6 and contacts accepting department for move.

Both transferring department and accepting department sign the SPM Form AM-6 Form and keep a copy for their records.

Original SPM Form AM-6 Form is hand delivered to Fiscal Services within 5 working days of transfer.

Disposition of An Asset

Surplus or obsolete assets may be disposed of by transferring to another department for disposal.

User department completes a Surplus Property Transfer Form. Contacts Materials Management for disposal.

Once Materials Management has possession of the asset, both user department and Materials Management sign the Surplus Property Form and SPM Form AM-6 and/or SPM Form AM-7.

Materials Management now has possession of the asset. The user department is to keep a copy of the forms related to the transfer or disposition for their records.

Transfer Accountability

When there is a change in department management, the accountability of assets is transferred to the new or interim manager.

Fiscal Services is to be informed of a management change to provide the new or interim manager the current department capital asset listing.

It is the responsibility of the new or interim department manager to conduct a physical inventory of items on capital asset listing.

The new or interim department manager will sign off on the capital asset listing assuming accountability of the assets. A copy will be hand delivered to Fiscal Services within 5 working days of physical inventory.

Physical Inventory of Equipment

Fiscal Services provides each department manager a listing of all assets assigned to their department on an annual basis.

Department manager is responsible for verifying the asset listing is completed accurately: all assets are accounted for and include the correct tag and serial number.

If an asset that has been transferred or disposed of appears on the asset inventory list, make a notation on the list and include copy of completed Surplus Property Transfer Form and SPM Form AM-6.

The completed inventory listing of department assets and supporting Surplus Property Transfer Form and SPM Form AM-6 forms must be hand delivered to Fiscal Services by the inventory deadline.

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 420	Page 1 of 5
Title: Dress Code	**Effective Date:** 4/16/2024	☐ **RUHS – Behavioral Health** ☒ **RUHS – Community Health Centers** ☒ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 This policy applies to all workforce members at RUHS – Medical Center Moreno Valley and Arlington campuses, Community Health Centers, and Hospital Based Clinics.

2. DEFINITIONS

2.1 Workforce Members is defined as any regular employee, temporary assistance employee (TAP), per diem employee, contract employee, volunteer, trainee, residents, medical students, and/or any other persons whose conduct, in the performance of work for RUHS – Medical Center, is under the direct control of RUHS – Medical Center, whether or not they are paid by RUHS – Medical Center.

3. RESPONSIBILITIES

3.1 The RUHS – Medical Center Administration and Management shall enforce this policy by:

a. Determining the appropriateness of workforce members' appearances based on RUHS – Medical Center guidelines and requirements for the delivery of services.

b. Counseling workforce members on acceptable attire/appearance.

c. Comply with the negotiated dress code provisions outlined in the Memorandum of Understanding (MOU) of the employee's respective Union.

3.2 All RUHS- Medical Center workforce members, at all RUHS – Medical Center facilities, shall be in compliance with this policy at all times.

4. POLICY

4.1 The policy of RUHS – Medical Center is to:

a. Create a professional appearance in order to promote a positive image to patients, visitors, and others while conducting business at RUHS – Medical Center.

b. Require workforce members to wear identification badges at all times. Please refer to RUHS – Medical Center Policy HW 420.1 Employee Identification.

c. Promote a safe environment by reducing the chance of injury or cross-infection caused by inappropriate attire or grooming practices.

4.2 General criteria. Attire shall be clean, pressed, and well fitting. Grooming shall be free from offending odors and excessive perfume or cologne.

4.3 Religious Attire. RUHS – Medical Center recognizes the importance of individually-held religious beliefs to persons within its workforce. RUHS – Medical Center will reasonably accommodate a workforce member's religious dress and grooming practices unless the accommodation poses a safety concern or violates workplace regulations. Workforce members requesting a workplace attire accommodation based on religious beliefs should present the request directly to their supervisor/manager who shall consult with Executive Administration for approval.

4.4 Clothing. Clothing may be any color, pattern, and fabric which are appropriate for business wear. Clothing with offensive or inappropriate designs or stamps are not allowed. In addition to this policy, but not in conflict, there may be some dress differences among, divisions, offices, or units, depending on the work environment, nature of work performed, involvement in patient care activities, or uniform requirements.

4.5 Appropriate attire includes:

a. Suits

b. Dresses, with a hemline of no more than 3 inches above the knee, any slits of not more than three inches above the knee, and of a length which does not drag on the ground.

c. Skirts, with a hemline of no more than 3 inches above the knee, any slits not more than three inches above the knee, and of a length which does not drag on the ground.

d. Jackets

e. Trousers (should not drag on the ground and must be secured at the waist)

f. Sleeved blouses, sweaters, polo shirts, button-up shirts (should be buttoned conservatively, shirt-tails should be tucked-in)

4.6 RUHS branded apparel purchased at the RUHS Gift Shop or online Company Store maybe worn, without modifications, on the Medical Center's Moreno Valley campus, Arlington campus, and Community Health Centers in accordance with the department's dress code. All requests for customized apparel, including utilizing RUHS logos and branding, must be approved by the RUHS Marketing Department, and acquired through approved channels.

4.7 Shoes. Safety should be considered when selecting shoes for business wear. Shoes should protect the foot from injuries resulting from cold, heat, corrosives, toxic substances, falling objects, crushing, or pinching. Shoes must be worn at all times and must be neat, clean, and in good condition. The following footwear is not permitted:

a. Flip-flops/thongs

b. Open-toe shoes when in Patient Care areas or in the Food & Nutrition Services Department

c. High-heeled shoes with a heel of more than 3 inches high

d. Open toe shoes, shoes without flexible soles, and boots may be acceptable dependent upon the safety issues involved in the department and work environment

4.8 Makeup must be appropriate for business.

4.9 Hair must be clean, neat, and styled for business wear, including sideburns, mustaches, beards, and goatees.

a. Workforce members that work in sterile areas, or performing a sterile procedure must wear a bouffant hat to cover all of the hair, scalp, and ears to minimize skin and hair shedding.

b. Workforce members that work in direct patient care areas must keep their hair up and away from face . (this is an evidenced based practice that contributes to infection prevention and optimal patient outcome.)

4.10 Hands and nails should be clean and neat (refer to HW 407, Hand and Nail Hygiene)

4.11 Personal Hygiene. Personal hygiene is essential. All workforce members shall maintain a clean, presentable appearance.

4.12 Business Casual Friday Attire. RUHS – Medical Center has adopted a "Business Casual Friday Attire" in administrative and/or business departments. Workforce members are expected to use good judgment to ensure that their attire is appropriate for all activities, meetings, and public and patient contact in which they may be involved in that day.

4.13 Jeans (Black, Blue, and White) may be worn by the following classifications:

a. Stock Clerk

b. Information Services Technicians

c. Communications Department Technicians

4.14 Uniforms. Regular employees working in the classifications listed below will be provided four (4) shirts and two (2) pants or attire as allocated in the current Union Memorandum of Understanding. Damaged shirts and pants, as determined by the Department Manager, may be replaced by returning the damaged article to the Department Manager. All shirts and pants owned by the County shall be returned by the employee upon termination.

Supervising Food Service Worker – Shirt and Pants	Supervising Cook – Pants and Chef Coat	Stationary Engineers
Senior Cooks, Cooks, and Assistant Cooks – Pants and Chef Coat	Senior Food Service & Food Service Workers – Shirts, Pants, and Apron	Grounds Workers
Bio-Med	Supervising Dietitian, Dietician I & II, and Dietetic Technicians – Lab Coat	Electricians
Maintenance Mechanics	HVAC Mechanics	Store Keeper and Stock Clerk - Shirts, Pants, and Apron
Access Control Technicians (Key Shop)	Plumber	TAP Food Service Worker - White Shirt, Black Pants (Not provided by County)
Carpenters	Painters	

4.15 Lab Jackets. RUHS – Medical Center issues lab jackets to workforce members in designated classifications upon approval by the Department Manager and Executive Administration or designee.

4.16 Scrubs. RUHS – Medical Center workforce members may wear "scrubs" in any color or pattern which is appropriate for wear in a hospital setting. The scrubs shall be neat, clean, in good condition, and shall be provided and maintained by the workforce member. RUHS – Medical Center issues County-owned scrubs to workforce members who work in sterile environments and those who work in semi-sterile environments as approved by the Department Manager. County owned scrubs shall be returned to the Department Manager upon termination of employment. Workforce members, who receive scrubs owned by the County, shall:

a. Not wear the scrubs outside of the facility.

b. Not share the scrubs with other workforce members.

c. Return soiled scrubs to be laundered by contracted, commercial laundry vendor.

4.17 **Tattoos/Body Art. Workforce members are required to cover any visible tattoos or body art expressions that contain text or imagery considered vulgar or offensive.**

4.18 Jewelry. For personal safety and security, workforce members are encouraged to wear limited jewelry keeping personal safety and professional appearance in mind at all times.

a. Facial Piercings. All facial piercings/jewelry such as nose rings, tongue, eyebrow, lip, or any other jewelry piercings or facial studs are generally prohibited. Earrings are acceptable only when worn in the ears.

b. Staff may only wear nose piercing jewelry consisting of studs, with secure backing.

4.19 Unacceptable Work Attire. This list is an example only and may not include all items deemed inappropriate. Unless noted as an exception elsewhere in this policy, the following is unacceptable at all times:

a. Any attire of denim material

b. Overalls/coveralls

c. Shorts or "skorts" of any type

d. Athletic tee shirts, tee shirts normally worn as undershirts with or without graphics/slogans, or sleeveless (muscle) shirts

e. Athletic jerseys with or without graphics, including logos related to sports teams

f. Gym/sweat pants

g. Workout wear/gear

h. Leggings/spandex/stirrup pants

i. Tank tops

j. Shirts or dresses with spaghetti straps unless covered by:

- Jacket,
- Blouse, or
- Other acceptable outer garment.

k. Shirts that expose the stomach or midriff area

l. Halter or tube type shirts

m. Exposed undergarments, low necklines, and/or sheer fabric

n. Sunglasses worn indoors

4.20 Enforcement. Managers and Supervisors are responsible for explaining and enforcing the dress code policy. Workforce members who report to duty and are non-compliant with the dress code policy may be sent home in accordance with the negotiated provisions outlined in the Memorandum of Understanding (MOU) of their respective Union. Failure to comply with this policy may be cause for disciplinary action up to and including termination. Consistent with this policy, exceptions may be made at the department level by the Department Manager due to the nature of work assignments or special events.

5. REFERENCES

5.1 RUHS – Medical Center policy HW 407.10 Hand and Fingernail Hygiene

5.2 RUHS – Medical Center policy HW 420.1 Employee Identification

5.3 Memorandum of Understanding, Service Employees International Union, Local 721

5.4 Memorandum of Understanding, Laborers International Union of North America, Local 777

5.5 California Assembly Bill 1964, The Workplace Religious Freedom Act of 2012

Document History:

Prior Release Dates: 8/1/1987, 9/11/2005, 9/6/2012, 11/15/2013, 12/28/2016, 7/25/2019, 3/1/2023	**Retire Date:** N/A
Document Owner: Administration	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
8/2023	Dress Code Work group	Y	Wording for clarity. Skirts 3 inches. Changes to tattoo covering rules. Addition of RUHS branded attire. Delete hosiery requirement. Revise jeans section.
9/20/23	Hospital Executive Committee	Y	
9/5/2023	Policy Approval Committee	Y	Minor revisions to clarify jewelry
9/20/23	Chair Nursing P&P	Y	Additional clarification for head coverings at suggestion of Nursing Directors.
10/20/23	Dress Code Work Group	Y	Delete Male and Female, generalize to 'attire'
10/19/2023	Nursing Policies and Procedures Committee	Y	

	Document No: 604.1	Page 1 of 8
Title: Universal Protocol	**Effective Date:** 4/16/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☒ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. SCOPE

   1.1 Hospital representatives (including privileged practitioners and participants in educational programs) shall verify the procedure, mark the site of the procedure (when applicable), and conduct a time out prior to High Risk Surgical or Medical Interventions ("Procedures") as prescribed by The Joint Commission's Universal Protocol**.**

   1.2 Procedures deemed by licensed practitioners to have no more than minimal risk, including but not limited to; venipuncture, peripheral IV line placement, insertion of an NG tube, laceration repair and bladder catheterization are not within the scope of this policy

2. DEFINITIONS

   2.1 A "High Risk Medical or Surgical Intervention" or "Procedure" as used in this policy and procedure means any intervention that carries a significant risk of complications, including but not necessarily limited to:

   a. "surgery" as defined by applicable state and federal regulations; other procedures for which moderate sedation, deep sedation, general anesthesia or monitored anesthesia care is planned; and

   b. catheterization of a blood vessel or body cavity (excluding procedures such as; the establishment of peripheral intravenous access for medication administration or blood / blood product infusion, venipuncture, catheterization of the bladder and naso/orogastric tube insertion, laceration repair, etc.)

3. POLICY

   3.1 Pre-Procedure Verification

   a. The pre-procedural team and/or circulating nurse shall review and verify the following:

      i. Confirm the correct patient using two patient identifiers

      ii. Confirm correct site and correct procedure with patient and/or family/support person/caregiver

      iii. Confirm the procedure site marked, if appropriate

iv. Confirm completion of History and Physical (H&P) if indicated

v. Confirm completed and signed informed consent (consent shall include laterality if indicated)

vi. Relevant diagnostic and radiology test results that are correctly labeled and available

vii. Order and availability of blood products, implants, devices, special equipment, and medication if indicated

viii. Code Status (as in Do Not Resuscitate (DNR) status) when applicable.

3.2 Marking of the Procedural Site

a. The site of the intended procedure should be unambiguously marked prior to the commencement procedure if: 1) there is more than one possible location for the procedure and 2) performing the procedure in a different location would negatively affect quality or safety.

   i. Exception: Site marking is not required when the person performing the procedure is continuously with the patient from the time of the decision to perform the procedure through the performance of the procedure.

b. The patient should be involved in the site-marking process when possible

c. The proceduralist shall clearly mark the procedure side/site using his/her initials to enhance the reliability of the process.

d. The site should be marked by a Licensed Practitioner ("Practitioner") who is ultimately accountable for the procedure and who will be present when the procedure is performed. In limited circumstances, the practitioner may delegate site marking.

   i. Circumstance: The procedure is performed in a teaching setting

   ii. Exception: A member of a postgraduate medical education program may mark the site if (s)he is familiar with the patient and will be present during the time out under the supervision of the Practitioner.

   iii. Circumstance: The procedure is performed in a setting where physicians and extended role practitioners work in collaboration with one another (e.g. the emergency department).

   iv. Exception: An advanced practice registered nurse or physician assistant who is familiar with the patient and who will be present during the procedure may mark the site.

e. Marking procedure site/side shall be made using a marker that is sufficiently permanent to remain visible after completion of the skin prep and sterile draping.

f. Procedures involving laterality of organs, but the incision(s) or approaches may be from the midline or from a natural orifice, mark the site if possible. Consider use of wristband as described in section 5.

g. In addition to preoperative skin marking of the general spinal region, special intraoperative radiographic techniques will be used for marking the exact vertebral level for spinal procedures.

h. In the case where only some of the wounds/lesions are to be treated, and the decision and direction for which ones to treat is made prior to the procedure itself, then the sites to be treated should be marked as soon as possible after the decision is made and before the procedure is started.

3.3 Alternative Site Marking

a. Alternative site marking may be used for procedural sites which may be technically or anatomically impossible or impractical to site mark, including mucosal surfaces or perineum, minimal access procedures treating a lateralized internal organ, whether percutaneous or through a natural orifice, and interventional procedure cases for which the catheter/instrument insertion site is not predetermined (for example, cardiac catheterization, pacemaker insertion), teeth, any site on a premature infant for whom the mark may cause a permanent tattoo.

b. A write-on, temporary wristband will be placed on the patient who refuses a body marking.

c. The alternative site wristband will include a patient label w/ patient's name and date of birth and/or MRN, the side (left or right), and the body part (ureter or tube).

d. The wristband will be placed on the patient's left or right limb, whichever corresponds to the side of the procedure site.

e. The surgeon must also verify the information on the wristband and initial it to show agreement.

f. Marking of images and/diagrams, e.g., in the case of a tooth, the operative tooth will be marked on the dental radiographs or dental diagram.

3.4 Time Out

a. A time out should be conducted immediately prior to the initiation of the procedure.

b. A member of the procedural team should be designated to initiate the time out.

c. The time out should include all individuals who will actively participate in the procedure.

d. During the time out, all active participants should suspend activity and agree to the correct patient identity, the procedure to be performed, the site of the procedure (when applicable), and the correct consent information.

   i. Additional Operating Room checklists are described in Appendix I

e. Combo procedures

   i. When two or more procedures are being performed on the same patient by the same team, a Time Out is performed to confirm *each* subsequent procedure before it is initiated if the patient is re-draped.

ii. When two or more procedures are being performed by separate teams on the same patient, a separate Time Out is performed to confirm each subsequent procedure before it is initiated.

f. Serious Life-Threatening Situations

i. The Time-Out, or an element of the Time-Out procedure, may be bypassed when a patient has a serious life-threatening condition in order to prevent a delay in the delivery of care. This shall be determined on a case-by-case basis.

ii. Elements of the Time Out shall be conducted to the extent possible.

g. Documentation

i. The medical record should indicate that a time out was performed prior to initiation of the procedure. However, such documentation need not recapitulate all elements of the process.

ii. Form #290, Universal Protocol "Time-Out" is available during downtime.

h. Additional elements of the Time Out in the Operating Room

i. See Attachment 1

4. REFERENCES

4.1 Australian College of Perioperative Nurses (ACORN). (2020). *The impact of distractions and interruptions in the operating room on patient safety and the operating room team: an integrative review.* https://www.journal.acorn.org.au/cgi/viewcontent.cgi?article=1098&context=jpn

4.2 Fearon, Mary (2023). Guideline for team communication. In E. Kyle (Ed), *AORN Guidelines for perioperative practice.* AORN.

4.3 The Joint Commission. (2023, May). *National Patient Safety Goals Effective July 2023 for the Hospital Program.* https://www.jointcommission.org/-/media/tjc/documents/standards/national-patient-safety-goals/2023/npsg_chapter_hap_jul2023.pdf

4.4 The Joint Commission. *The universal protocol for preventing wrong site, wrong procedure, and wrong person surgery.* https://www.jointcommission.org/-/media/tjc/documents/standards/universal-protocol/up_poster1pdf.pdf

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5. ATTACHMENTS

5.1 Additional Elements of Time Out

5.2 Comprehensive Surgical Checklist

Document History:

Release Dates: 3/2003, 1/2009, 3/2011, 8/2012, 11/2017, 6/2020, 8/21/2023	**Retire Date:** N/A
Document Owner: Perioperative Services	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
3/25/2024	Critical Care & Perio op Management	Yes	Revise Scope and definitions. Move OR Checklist to Appendix, revise documentation requirement to support Clinic procedures
3/27/2024	Nursing P&P	No	
4/2/2024	PAC	Yes	Minor modification to terms to reflect CMS update from Licensed Independent Practitioner to Licensed Practitioner. Added caregiver/support person to 3. a.i.
4/11/2024	MEC	No	

Attachment 1

I. Additional Elements of the Time Out

Additional role clarity for time outs performed in the Operating Room

Pre-Induction Time Out

a. The Pre-Induction Time Out is performed before induction of anesthesia. This process shall be conducted in the location where the procedure will be done and shall involve the anesthesiologist, proceduralist or participating resident, Registered Nurse (RN), and scrub personnel.
b. During the Pre-Induction Time Out, all activities shall be suspended to the extent possible so that team members can focus on active confirmation of patient, site, and procedure and resolve any questions or concerns prior to the start of the induction.
c. When two or more procedures are being performed on the same patient, a Pre-Induction Time Out is performed at the start of the first procedure to cover all procedures.
d. The procedure team shall verbalize and confirm the elements of the Pre-Induction Time Out, as follows
    i. Correct patient is identified with two patient identifiers
    ii. Name on consent is validated against patient identifiers
    iii. Correct procedure on Informed Consent
    iv. Correct laterality/correct site marked

Nursing team reviews:

1. Patient position for the procedure
2. Sequential Compression Device's (SCD) activated
3. Medications and fluids on the field and labeled
4. Specific implants are sterile and ready, equipment is available
5. Is Foley indicated
6. Fire hazard

Surgical team reviews:

7. Discuss duration of the procedure
8. Specific equipment/implants, vendor or professional services named and confirmed
9. Discuss patients' disposition after surgery, notify critical care areas if a bed will be needed.

Anesthesia team reviews:

Anesthesia safety check completed

10. Allergies
11. Beta-blocker plan, antibiotic plan or preoperative antibiotics
12. Glucose testing, if needed

    v. Safety precautions based on patient history or medication use (e.g., allergies, Do Not Resuscitate (DNR) status, blood product availability)
    vi. Introductions of team members in the room

II. Debriefing

a. This process shall be conducted before the patient leaves the procedure/ operating room and shall involve the proceduralist, anesthesiologist, RN, and scrub personnel.

b. The following will be discussed:

- The description of procedure completed
- Verbal confirmation of the correct sponge, sharps, and instrument counts
- Description of specimen(s) and the total number of specimen(s)
- Special needs for patients going to ICU shall be discussed.

c. Follow Comprehensive Surgical Checklist (see attached).

FRONT:

COMPREHENSIVE SURGICAL CHECKLIST

Pre-Procedure	Pre-Induction Time Out	Time Out	Debriefing
IN HOLDING AREA	BEFORE INDUCTION OF ANESTHESIA	IMMEDIATELY BEFORE INCISION/ PROCEDURE START	INITIATED AT THE START OF CLOSURE
Participants: SDS/Holding/or circulating nurse **Confirms with patient or legal representative:** Two patient identifiers ▫ **Yes** Correct procedure and site ▫ **Yes** **Confirms presence of:** Current H&P ▫ **Yes** Interval Note ▫ **Yes** ▫ **N/A** Pre-Anesthesia assessment ▫ **Yes** Informed Consent ▫ **Yes** Planned procedure and procedure site/ side marked ▫ **Yes** ▫ **N/A** Diagnostic &/or radiologic test results labeled correctly and available ▫ **Yes** ▫ **N/A** Blood products ▫ **Yes** ▫ **N/A** Any special equipment/devices/implants or professional service ▫ **Yes** ▫ **N/A** Beta blocker given ▫ **Yes** ▫ **N/A** DNR status ▫ **Yes** ▫ **N/A**	**Participants:** Anesthesiologist, surgeon or participating resident, circulator, and scrub personnel **Suspended in a life-threatening emergency only** **Confirm:** Correct patient - two identifiers Correct procedure on Informed Consent Correct laterality Correct site marked **Nursing Team Reviews:** Position for procedure SCD's activated Medications & fluids on field labeled Foley needed? Instruments/Implants are sterile & ready Fire risk assessment (see back) **Anesthesia Team Reviews:** Anesthesia safety-check completed Allergies Beta blocker plan Glucose testing, if needed Antibiotic plan Blood available Difficult airway or aspiration risk DNR status **Surgical Team Reviews:** Duration of procedure Any special equipment /implant/ professional service/vendor Patient going to ICU? (alert SICU) Introductions of all team members in room	**Participants:** Anesthesiologist, surgeon, circulator, scrub personnel and all others in the room **Suspended in a life-threatening emergency only.** **Confirm:** Patient - two identifiers Planned procedure on Informed Consent **Surgical Team Reviews:** Correct side marked & visible Anticipated blood loss Any critical or further concerns **Anesthesia Team Reviews:** Antibiotic given	**Participants:** Anesthesiologist, surgeon, circulator, and scrub personnel **Nursing Team and Surgeon Reviews:** Description of procedure Description and number of specimen(s) Status of final sponge, sharp, & instrument count X-ray, if indicated Removal of Foley, if indicated Family location Urine output, if indicated **Surgical Team Reviews:** Notification of equipment/problems **Anesthesia Team Reviews:** EBL Fluids infused **Notes:** Ensure ID band on patient before transfer Patient going to ICU? (Notify SICU) 07/2023

BACK:

FIRE RISK ASSESSMENT		
Procedure site or incision above the xiphoid	Yes - 1	No - 0
Open oxygen source (face mask/nasal cannula)	Yes - 1	No - 0
Ignition source (cautery, laser, fiberoptic light source)	Yes - 1	No - 0
Score 1 or 2 = Routine Fire Risk **Score 3 = High Risk for Fire**	**Total Score:**	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 869	Page 1 of 3
Title: Antimicrobial Prophylaxis for Surgery	**Effective Date:** 4/16/2023	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. PURPOSE

1.1 The purpose of these institutional guidelines is to establish evidence-based standards for surgical prophylaxis at Riverside University Health System Medical Center. The recommendations in this document are based on the 2013 consensus guidelines from American Society of Health-System Pharmacists (ASHP), the Infectious Diseases Society of America (IDSA), the Surgical Infection Society (SIS) and the Society for Healthcare Epidemiology of America (SHEA).

2. GUIDELINES

2.1 **Timing of administration** – Antibiotics should be administered to achieve highest tissue concentrations at the time of initial incision and throughout the duration of the surgery. Intra-operative redosing may be required to ensure adequate tissue concentrations if the duration of the procedure exceeds two half-lives of the drug, or if there is excessive blood loss (> 1500 mL) during the procedure.

a. Infusion of the prophylactic antibiotics must be initiated within 60 minutes, and preferably within 30 minutes of the procedure and completed prior to the first surgical incision.
b. Vancomycin and fluoroquinolone infusions should begin within 60-120minutes prior to the incision and completed prior to the first incision.
c. For cesarean delivery, administer antimicrobial prophylaxis prior to skin incision rather than after cord clamping.
d. Redosing intervals should be measured from the time of administration of the pre-operative dose and not from the beginning of the procedure (refer to **Table 2**).
e. Redosing may not be needed in renal failure.

2.2 **Discontinuation of surgical prophylaxis**

a. Contaminated or dirty procedures – discontinue within 24 hours of surgical end time.
b. Clean and clean-contaminated procedures – discontinue after the surgical incision is closed in the operating room, even in the presence of a drain (exceptions include implant-based breast reconstruction, joint arthroplasty, and cardiac procedures).
c. Continuation of antibiotics beyond these recommended durations requires documentation of reason for continuation such as in the case of an active or suspected infection.

2.3 **Antimicrobial Agents for Surgical Prophylaxis**

a. Select appropriate antimicrobial agents based on the surgical procedure, the most common pathogens known to cause SSI for the specific procedure, and published recommendations (See **Table 3.1**).

b. A combination of parental and oral antimicrobial prophylaxis should be used prior to colorectal surgeries

2.4 **Use of Vancomycin**

a. Routine use of vancomycin prophylaxis is not recommended for any procedure.
b. Vancomycin may be considered in patients with MRSA colonization (positive preoperative screen or culture history) in orthopedic surgeries involving prosthetic materials.
c. Vancomycin may be included in the regimen of choice when a cluster of MRSA cases (e.g., mediastinitis after cardiac procedures) or methicillin-resistant coagulase-negative staphylococci Surgical Site Infections have been detected at an institution. Based on review of Surgical Site Infections at Riverside University Health System Medical Center we do not recommend routine use of Vancomycin.
d. At this time we recommend the use of Vancomycin as an alternative for patients with a beta-lactam allergy.
    - Thorough allergy history should be obtained. Self-reported beta-lactam allergy has been linked to higher risk of surgical site infections
e. The Infection Prevention Committee and Antimicrobial Stewardship Subcommittee will review hospital-specific surveillance data and update these guidelines on an annual basis to reflect changes in hospital flora based on these surveillance data.

3. ATTACHMENTS

3.1 Table 1: Antimicrobial Choices

3.2 Table 2: Adults - Pre- and Intraoperative Antibiotic Dose and Redosing Intervals

3.3 Table 3: Pediatric Dosing Intervals and Doses

4. REFERENCES

4.1 Ban KA, Minei JP, Laronga C, et al; Executive Summary of the Americal College of Surgeons/Surgical Infection Society Surgical Site Infection Guidelines-2016 Update. Surgical Infections. 2017 May 1;18(4).

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4.4 Calderwood, Michael S., et al. "Strategies to prevent surgical site infections in acute-care hospitals: 2022 Update." Infection Control & Hospital Epidemiology 44.5 (2023): 695-720.

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4.7 Holubar M, Mui E, Deresinski S, Meng L, Tompkins L. 8/19/16. Antimicrobial Prophylaxis - SHC Guidelines for Adult Patients. Accessed 10/2016

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4.9 Van Schooneveld T, Rupp M, Langenfeld S, McBride C, et al. Antimicrobial Surgical Prophylaxis – Nebraska Medical Center. Revised Jan 2016. Accessed 10/2016.

4.10 The Joint Commission Antimicrobial Stewardship (MM.09.01.01)

Document History:

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9/11/2023	Infectious Diseases Pharmacist	Yes	Updated 2023 SHEA/IDSA/APIC Guideline recommendations Updated reference
11/6/23	P&T	No	
2/6/2024	PAC	No	
12/14/23	MEC	No	

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Table 1: Antimicrobial Selections

Procedure Type	Antimicrobials	Penicillin anaphylaxis and/ or severe cephalosporin hypersensitivity History	Comments
Cardiac Surgery			
Pacemakers AICD	Cefazolin 2-3 gm once	Vancomycin 15 mg/kg once	
Gastrointestinal Surgery			
Appendectomy Colorectal* (i.e. APR, colon resection, colostomy) Hepatobiliary Any other intestinal or lower gastrointestinal tract involvement	Cefazolin 2-3 gm once AND Metronidazole 500 mg once	Ciprofloxacin 400 mg once AND Metronidazole 500 mg once	* Routine use of ertapenem for colorectal surgical prophylaxis is controversial due to concerns over ↑resistant organisms, potential GI side effects and C. difficile infections. Use of ertapenem prophylaxis should be reserved for known colonization with ESBL organisms or high risk for ESBL infections (i.e. recent or repeat exposures with fluoro-quinolones or carbapenems). Current RUHS epidemiology indicates low ESBL presence in surgical site infections
Hernia repair with or without mesh PEG placement or revision	Cefazolin 2-3 gm once	Clindamycin 900 mg once	
Laparoscopy (diagnostic), Rectal exam/hemorrhoid surgery	No antibiotics indicated unless high risk for infection		
Head & Neck Surgery			
Clean (Parotidectomy, thyroidectomy, tonsillectomy)	No antibiotics indicated		
Clean with placement of prosthesis (excludes tympanostomy tubes)	Cefazolin 2-3 gm once	Clindamycin 900 mg once	
Clean-contaminated or Contaminated	Cefazolin 2-3 gm once	Clindamycin 900 mg once	

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Procedure Type	Antimicrobials	Penicillin anaphylaxis and/ or severe cephalosporin hypersensitivity History	Comments
	AND Metronidazole 500 mg once		
Neurosurgery			
Neurosurgery	Cefazolin 2-3 gm once	Vancomycin 15 mg/kg once	
OB/GYN Surgery			
Induced abortion/dilation and evacuation (D&C)	Doxycycline 200 mg PO once 1 hour before the procedure		
Hysterectomy (vaginal or laparoscopic), pubovaginal sling Cesarean delivery	Cefazolin 2-3 gm once	Clindamycin 900 mg once AND Gentamicin 5 mg/kg* once	*Gentamicin for surgical antibiotic prophylaxis should be limited to a single dose given preoperatively. Dosing is based on the patient's actual body weight (ABW). If the patient's ABW is > 20% above ideal body weight (IBW), the dosing weight (DW) can be determined as follows: DW = IBW + 0.4 (ABW – IBW).
PPROM (preterm premature rupture of membranes)	Ampicillin 2 gm IV Q6h x 48hr AND Azithromycin 1 gm PO once	Clindamycin 900 mg Q8h x 48hr AND Gentamicin 5 mg/kg* once	
Hysteroscopy (diagnostic, operative, endometrial ablation) Laparoscopy (diagnostic, operative, tubal sterilization IUD insertion	No antibiotics indicated		
Orthopedic Surgery			
Clean operations involving hand, knee, or foot and not involving implantation of foreign material	No antibiotics indicated		

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Procedure Type	Antimicrobials	Penicillin anaphylaxis and/ or severe cephalosporin hypersensitivity History	Comments
Open fracture: Grade I	Cefazolin 2-3 gm Q8h x 24hr	vancomycin x24hr	MRSA risk (Positive MRSA screen or culture history): Cefazolin + vancomycin x24hr
Open fracture: Grade II	Cefazolin 2-3 gm Q8h x 48hr	vancomycin x 48hr	MRSA risk (Positive MRSA screen or culture history): Cefazolin + vancomycin x48hr
Open fracture: Grade III No gross contamination (or no available history)	Ceftriaxone 2 gm Q24h x 72hr	Levofloxacin 750 mg Q24h x 72hr AND Vancomycin x72hr	MRSA risk (Positive MRSA screen or culture history): Ceftriaxone + vancomycin x72hr
Open fracture: Grade III Contamination with soil / fecal material	Ceftriaxone 2 gm Q24hr x 72hr AND Metronidazole 500 mg Q8hr x 72hr	Levofloxacin 750 mg Q24h x 72hr AND Metronidazole 500 mg Q8hr x 72hr	MRSA risk (Positive MRSA screen or culture history): Ceftriaxone (or levofloxacin if severe beta lactam allergy) + vancomycin + metronidazole x 72hr --- Acute intoxication: Levofloxacin + clindamycin x 72hr

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Procedure Type	Antimicrobials	Penicillin anaphylaxis and/ or severe cephalosporin hypersensitivity History	Comments
Open fracture: Grade III Contamination with water	Piperacillin-tazobactam 3.375 gm Q6h x 72hr Piperacillin-tazobactam dose may be changed to extended infusion based on RUHS HW848 once the patient returns to unit	Levofloxacin 750 mg Q24h x 72hr AND Metronidazole 500 mg Q8hr x 72hr	MRSA risk (Positive MRSA screen or culture history): Piperacillin-tazobactam + vancomycin x72hr OR If beta-lactam allergy: Levofloxacin + metronidazole+ vancomycin x72hr --- Acute intoxication: Levofloxacin + clindamycin x72hr
Total joint replacement Open reduction of fracture/internal fixation	Cefazolin 2-3 gm Q8h x 24hr	Clindamycin 900 mg Q8h x 24hr	MRSA risk (Positive MRSA screen or culture history): Cefazolin + vancomycin x24hr
Pediatric Surgery (Age < 14 years; refer to Adult Gastrointestinal Procedures for age ≥ 14 years)			
Upper Gastrointestinal	Cefazolin 30 mg/kg once	Clindamycin 10 mg/kg once OR Vancomycin 15 mg/kg once	Cefazolin max dose: 2gm if < 120kg, 3gm if ≥ 120kg Clindamycin max dose: 900 mg Vancomycin max dose: 2 gm
Lower Gastrointestinal	Cefoxitin 40 mg/kg once	Clindamycin 10 mg/kg once AND Gentamicin 2.5 mg/kg once or Ciprofloxacin 10 mg/kg once	Cefoxitin max dose: 2 gm Clindamycin max dose: 900 mg Gentamicin max dose: 120 mg Ciprofloxacin max: 400mg
Plastic Surgery			

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Procedure Type	Antimicrobials	Penicillin anaphylaxis and/ or severe cephalosporin hypersensitivity History	Comments
Skin biopsy / Mass excision	Cefazolin 2-3 gm x24hr	Vancomycin 15 mg/kg x24hr	
Spine Surgery			
With or without instrumentation	Cefazolin 2-3 gm once	Vancomycin 15 mg/kg once	MRSA risk (Positive MRSA screen or culture history): Cefazolin + vancomycin once
Thoracic Surgery			
Non-cardiac thoracic	Cefazolin 2-3 gm once	Vancomycin 15 mg/kg once	
Urological Surgery			
Clean (without entry into the urinary tract or clean with entry into the urinary tract) Lower tract instrumentation	Cefazolin 2-3 gm once	Clindamycin 900 mg once AND Gentamicin 5 mg/kg* once	*Gentamicin for surgical antibiotic prophylaxis should be limited to a single dose given preoperatively. Dosing is based on the patient's actual body weight (ABW). If the patient's ABW is > 20% above ideal body weight (IBW), the dosing weight (DW) can be determined as follows: DW = IBW + 0.4 (ABW – IBW).
Clean- contaminated/ Contaminated	Cefazolin 2-3 gm once AND Metronidazole 500 mg once	Ciprofloxacin 400 mg once AND Metronidazole 500 mg once	
Vascular Surgery			
Vascular	Cefazolin 2-3 gm once	Vancomycin 15 mg/kg once	

HW869 ATTACHMENTS: 3.1 TABLE 1-3.2 Table 2 - 3.3 Table 3

Table 2: Adults - Pre- and Intraoperative Antibiotic Dose and Redosing Intervals

NOTE: Many procedures require no post-op doses of antimicrobials. If desired, limit duration to < 24 hours post-closure.

Antibiotic	Adult Dose	Dosing in Renal Dysfunction	Redosing Interval (hours)	Maximum dose in 24 hour period
Cefazolin	< 120 kg: 2 gm IV Q8h ≥ 120 kg: 3 gm IV Q8h	CrCl 10-29 ml/min: < 120 kg: 2 gm IV Q12h ≥ 120 kg: 3gm IV q 12h CrCl < 10 ml/min: Administer only pre-op dose	4	12 gm
Clindamycin	900 mg IV q 8h	No adjustment	6	2700 mg
Vancomycin	< 80 kg: 1 gm IV Q12h 80-99 kg: 1.25 gm IV Q12h 100-120 kg: 1.5 gm IV Q12h > 120 kg: 2 gm IV Q12h	CrCl < 50ml/min: Administer only pre-op dose (single dose)	12	4 gm
Ampicillin / Sulbactam	3 gm IV Q6h	CrCl 10-29 ml/min: 3 gm Q12h CrCl < 10 ml/min: 3 gm Q24h	2	12 gm
Aztreonam	2 gm IV Q8h	CrCl 10-29 ml/min: 2 gm Q12h CrCl < 10 ml/min: 2 gm Q24h	4	8 gm
Cefoxitin	2 gm IV Q6h	CrCl 10-29 ml/min: 2 gm IV Q12h CrCl < 10 ml/min: 2 gm IV Q24h	2	8 gm
Ciprofloxacin	400 mg IV Q12h	CrCl < 30ml/min: 400 mg IV Q24h	8	1200 mg
Levofloxacin	500 mg IV Q24h	CrCl < 30ml/min: Administer only pre-op dose (single dose)	N/A	
Metronidazole	500 mg IV Q8h	No adjustment	8	1500 mg
Gentamicin*	5 mg/kg IV once (single dose)	CrCl < 20ml/min: 2 mg/kg IV once (single dose)	N/A	

*Gentamicin for surgical antibiotic prophylaxis should be limited to a single dose given preoperatively. Dosing is based on the patient's actual body weight (ABW). If the patient's ABW is > 20% above ideal body weight (IBW), the dosing weight (DW) can be determined as follows: DW = IBW + 0.4 (ABW – IBW)

RIVERSIDE COUNTY REGIONAL MEDICAL CENTER

Housewide

	Document No: 131	Page 1 of 5
Title: Patient Belongings	**Effective Date:** 5/15/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 This guideline shall govern how patient belongings are processed at Riverside University Health System – Medical Center Moreno Valley campus (RUHS). The Arlington Campus shall maintain their own policy for patient belongings.

2. DEFINITIONS

2.1 **Activities of Daily Living (ADL):** are the things normally done in daily living including any daily activity performed for self-care such as feeding, bathing, dressing, grooming, work, homemaking, and leisure.

2.2 **Contraband:** is defined, for the purposes of this document only, as items that staff perceive that a patient/visitor could use to cause harm to self or others, violate another person's rights, and/or interfere in any way with the provision of care to other patients and the environment.

2.3 **Entrusted Property:** Patient Monies and/or Valuables that the patient entrusts to the licensee for safekeeping.

2.4 **Medical Equipment:** is equipment prescribed by a physician that is medically necessary for the diagnosis or treatment of an illness or injury, or to prevent the patient's further deterioration.

2.5 **Patient Belongings:** are a patient's personal possessions.

2.6 **Patient Supplied Medical Equipment:** is defined as any medical equipment that is not owned, leased, or contracted by RUHS – Medical Center, which is brought into the facility by the patient/family or representative for the patient's personal use during their hospitalization.

2.7 **Personal Care Device:** is a patient belonging that assists the patient in the activities of daily living. Examples include: dentures, eyeglasses, hearing aids, contact lenses, etc.

3. GUIDELINE

3.1 **Admitting shall:**

a. Inform the patient that:

i. Personal belongings should be sent home with a family member.

ii. The hospital is not financially responsible for any belongings retained by the patient.

iii. The patient may request to store valuables in the locked, fireproof, RUHS – medical center safe.

iv. According to California state law, RUHS – MEDICAL CENTER is only liable for belongings accepted for storage in that safe and only up to a maximum liability of $500.00.

v. NOTE: If the patient states or staff observes that the patient has currency that exceeds $500.00 in value, and the patient refuses to place that currency in the locked safe, staff shall notify the receiving care area and document the refusal.

vi. The above information is included in the Conditions of Treatment that is signed by the patient or legal representative.

3.2 **If the patient indicates they DO have valuables for storage:**

a. The valuables shall be placed in a property bag and the bag shall be sealed in the presence of the patient. The patient shall sign the form and staff shall inform the patient how they can claim the bag at a later time.

i. Inventory of valuables:

- Only list the type and quantity of any credit/debit card.(ie;debit/visa card x2)
- List the check numbers of checks.
- Itemize currency by denomination of bills and total them. The count shall be witnessed and co-signed by that witness.
- Use objective, basic descriptors (i.e., what appears to be a diamond in a gold ring should be described as a “yellow metal ring with a clear stone”; a cell phone of any type should be described simply as a “cell phone”).
- Sign the inventory.
- Transport to Nurse Staffing Office

ii. EXCEPTION: If the patient states that they have valuables in the form of personal medication from home, personal care device, or personal medical equipment, staff will advise the patient to take those items home via a trusted family member or friend. If they cannot be returned home, the patient record will reflect that the items followed the patient to the receiving care area. Home medication should be processed per HW 857 Patient’s Personal Home Medication.

iii. NOTE: If the belongings include currency that exceeds $500.00 in value, staff must obtain a witness during the securement process.

iv. NOTE: If any hospital staff writes a receipt for any patient belonging that specifically states that the value of the belonging exceeds $500 then the hospital is liable for that amount even though it exceeds $500.

v. NOTE: If the patient is wearing valuables i.e. rings, bracelets. etc. and refuses to place items in the safe, this shall be documented in the health record.

b. The valuables bag shall then be transported to the Nurse Staffing Office.

3.3 **Entrusted Property to the Hospital**

a. When the Nurse Staffing Office receives patient valuables bags for storage in the locked safe, they shall note it in a log, inventory contents in the presence of a Riverside County Sheriff Deputy, seal and place the bag in the safe.

b. When a patient directly requests the return of patient valuables from the locked safe, the Nursing Staffing Office shall ask for identification AND a signature.

c. When a patient family member, caregiver, or representative asks for the patient valuables, Nurse Staffing Office staff shall call the patient care area to verify with the patient. If the patient lacks capacity in decision making, the social worker will be called to verify who is listed as the patient's representative to confirm that the individual is authorized to do so. If the belongings are released to that individual, an identification and signature shall be required.

d. Upon a patient's death, monies and valuable(s) will be given to the legal responsible party within 30 days. The Nurse Staffing Office can utilize the Patient Advocate Office in search for family of a decedent as needed.

e. If Monies and/or Valuables are left behind by a patient, items will be sent to the Patient Advocate Office. The Patient Advocate Office will attempt to make contact with the patient for pick up. If they are not successful, the cash will be sent to the Cashier Office. Remaining non-cash valuables will be kept for a period of 180-days.

f. The Cashiers Office will receive the cash and hold it to be claimed for a period of 4-7 years. At which time, it will be sent to the State as unclaimed monies.

3.4 Entrusted Property Loss

a. All reports of lost monies and/or valuables shall be investigated by the appropriate Department Manager, or designee.

b. The patient shall be reminded that RUHS - MEDICAL CENTER cannot assume liability for lost, missing, or damaged belongings retained at the bedside. A search for lost belongs can be conducted for service recovery but is not required.

c. If the property is not found after a search of the safe, and the patient would like to make a complaint or claim, the Department Manager, or designee shall:

   i. Fill out form ND#81 (ATTACHMENT 5.1) with the patient information and forward it to the Patient Advocate.

   ii. Provide the patient with contact information for the Patient Advocate.

   iii. Forward any written communication from the patient or patient representatives regarding their lost or damaged property to the Hospital Patient Advocate.

   iv. Complete an online Incident Report

   v. Notify the Security Department if a crime is suspected.

3.5 Patient Care Unit

a. Unconscious Patients

   i. If the patient is unconscious , the receiving patient care unit shall offer the patient belongings to the patient's family or representative.

   ii. If there is no family representative present, or the family refuses the belongings, nursing staff shall inventory patient personal belongings via the electronic health record, place items in a property bag and seal the bag. During downtime use form #111 *Patient Property and Transfer Record*

iii. EXCEPTION: Some belongings may require a different bagging procedure due to safety and/or infection prevention and control precautions.

b. Follow Inventory of valuables process, refer to section 3.2 a. i. Inventory of valuables:
   i. Ensure use of an approved device for photographing.
   ii. Ensure all items are visible in the photograph.
   iii. Ensure the patient's identification sticker is present in all photographs.
   iv. Upload photographs to the health record.
   v. Nursing or other healthcare staff should enter a comment in the EPIC Patient Belongings flowsheet indicating that the patient's belongings have been inventoried/photographed.

c. Personal Home Medications
   i. The receiving nursing unit shall process personal medication from home in compliance with *HW 857 Patient's Personal Home Medication*.
   ii. If the patient submits plant materials as personal home medication, staff shall process it in compliance with *HW 857 Patient's Personal Home Medication*.

d. Personal Care Device from Home
   i. Patient Care unit staff shall assist patients with personal care devices from home according to individual unit practices.

e. Personal Medical Equipment from Home
   i. Nursing units shall process medical equipment according to policy *HW 673 Use of Patient Supplied Medical Equipment.*

f. Suicidal Patient's Belongings
   i. Refer to Policy HW 668 *Suicide Prevention*

g. Unit Transfers
   i. Patients transferred to other patient care unit shall have all belongings that are retained at the bedside transferred with them by the sending unit.
   ii. If the patient is unconscious, nursing staff of the sending unit shall ensure the integrity of the sealed belongings bag. If integrity is compromised, the contents will be reviewed to ensure all items photographed are present. If all items are present, the items will be sealed in a new belongings bag. The belongings bag will be transported with the patient to the receiving care unit.

h. Return of patient monies and/or valuables
   i. The patient may request the return of their monies and/or valuables at any time, not solely upon discharge. Receipt of valuables will be obtained from the patient at the time monies and/or valuables are returned.

i. Belongings left behind
   i. When patient belongings are found in a patient care unit after a patient's discharge and staff can identify the owner, staff shall attempt to contact the patient and ask him/her or their designee to pick up his/her belongings.

ii. If no owner could be identified, or if belongings were not picked up within 3 days after contact, the patient care unit staff will tag the belongings and send to the Patient Advocate Office.

iii. After 60 days, if the patient does not return contact/retrieve belongings, the hospital will no longer be liable for their storage.

iv. EXCEPTION: Soiled belongings will not be stored for any period of time for sanitary purposes.

3.6 **Safety and Contraband**

a. Any staff that identifies contraband shall secure the item(s) using appropriate PPE, if safe to do so, and immediately call the Security Operations Center (SOC) for assistance. If the staff is unable to safely secure the item(s), they shall remain in direct observation of the patient or visitor until someone from the SOC responds or call and activate the appropriate hospital code (ie. Code silver or Code green), if necessary. If staff requests contraband from a patient and a patient is unwilling to surrender contraband, immediately call SOC for assistance and activate appropriate code, if necessary.

b. If staff is uncertain of what to do in any situation involving contraband, they shall call the SOC, so they can triage the situation appropriately.

4. REFERENCES:

4.1 California Civil Code Sections 1859, 1860, and 1862.5

4.2 California Probate Code Section 330 and 13104(d)

4.3 California Code of Regulations 22 CCR 70755 Patients' Monies and Valuables

4.4 California Government Code Section 50050-50057

4.5 RUHS Medical Center Conditions of Treatment

4.6 HW 673 *Use of Patient Supplied Medical Equipment*

4.7 *HW 857 Patient's Personal Home Medication*

4.8 HW 668 *Suicide Prevention*

5. ATTACHMENTS

5.1 Form ND #81 Patient Property Complaint

5.2 Patient Property and Transfer Record #111

5.3 Form 249 Patient's Valuables Record

5.4 Belongings Left Behind Tag

Document History:

Release Dates: 2/1/13, 9/5/2017, 3/18/2021	**Retire Date:** N/A
Sponsored by: Director of Nursing - 4100	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
2/29/2024	Pre-Nursing P&P	Yes	Recommendations 3.4, 3.5. Decide the ED to OR patient belonging pathway. Heather to review the photo process
3/27/2024	Nursing P&P	Yes	3.2a – review the process with house sups to confirm or change methods.
5/7/2024	Policy Approval Committee	Yes	Minor wording changes to contraband definitions, adding 'that staff perceives'

Riverside University HEALTH SYSTEM

DATE:_____ File#:_____

PATIENT PROPERTY COMPLAINT

PATIENT NAME:_____ MRN:_____

PATIENT ADDRESS:_____

PHONE#_____DATE DISCHARGED:_____ FROM UNIT:_____

DESCRIPTION OF MISSING PROPERTY:_____

_____

_____

_____

Name of person filing complaint (if other than patient):_____

Relationship:_____ Phone#_____

****

FOLLOW-UP ON MISSING PROPERTY:

[ ] Admitting contacted for property By:_____

[ ] Unit contacted/searched for property By:_____

[ ] Chart reviewed – property sheet copied: By:_____

[ ] Staff involved asked about property By:_____

[ ] Patient/family notified of results of search By:_____

Summary regarding property:_____

_____

_____

_____

PLEASE RETURN THIS COMPLETED FORM TO: PATIENT ADVOCATE OFFICE

NOTE

Property retained at bedside (at owner's risk) *Objetos de valor permaneciendo con el paciente (por cuenta y riesgo del dueño)*	**Property taken to Nursing Staffing Office SAFE:** (*Objetos de valor llevados a la oficina de negocios*)	**Property given to person accompanying patient at Admission** (*Objetos de valor llevados a casa al ingreso*) Rec'd By (*Recibidos por*):
☐ **Drivers License** *(Licencia)* ☐ **Keys** *(Llaves)* ☐ **Cell Phone** (*cellula*) ☐ **Charger** *(cargado)* ☐ **Money/Credit Card** (*dinero/tarjeta de credito)* Describe (*Describa*): _____ ☐ **Jewelery**/ Describe (*Describa*): _____ _____ ☐ **Dentures**: (*Dentadura Postiza*) ☐ Upper (*Superior*) ☐ Lower (*Inferior*) ☐ **Removable Bridge**: (*Removible Puente*) ☐ **Glasses**: (*Anteojos*) Describe (*Describa*)_____ ☐ **Contact Lens** (*Lentes de Contacto*) ☐ **Medical Appliance** (*Dispositivo Médico*) Describe (*Describa*)_____ ☐ **Clothing** ☐ Hat or Cap (*Sombrero o Gorra*) ☐ Jacket/Sweater (*Chaqueta/Suéter*) ☐ Shirt or Blouse (*Camisa o Blusa*) ☐ Dress (*Vestido*) ☐ Pants (*pantalones*) ☐ Underwear (*Ropa Interior)* ☐ Undershirt *(Camiseta*) ☐ Bra (*Sostén*) ☐ Pajamas/nightgown (*Pijama/Camisón)* ☐ Robe (*Bata*) ☐ Socks or Hose (*Calcetines o Medias*) ☐ Shoes/Slippers (*Zapatos o chanclas*) ☐**Other**_____ _____ _____	☐ **Drivers License** *(Licencia)* ☐ **Keys** *(Llaves)* ☐ **Cell Phone** (*cellula*) ☐ **Charger** *(cargado)* ☐ **Money/Credit Card** (*dinero/tarjeta de credito)* Describe (*Describa*): _____ ☐ **Dentures**: (*Dentadura Postiza*) ☐ Upper (*Superior*) ☐ Lower (*Inferior*) ☐ **Removable Bridge**: (*Removible Puente*) ☐ **Glasses**: (*Anteojos*) Describe (*Describa*)_____ ☐ **Contact Lens** (*Lentes de Contacto*) ☐ **Medical Appliance** (*Dispositivo Médico*) Describe (*Describa*)_____ ☐**Other**_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	☐ **Drivers License** *(Licencia)* ☐ **Keys** *(Llaves)* ☐ **Cell Phone** (*cellula*) ☐ **Charger** *(cargado)* ☐ **Money/Credit Card** (*dinero/tarjeta de credito)* Describe (*Describa*): _____ ☐ **Jewelery**/ Describe (*Describa*): _____ _____ ☐ **Dentures**: (*Dentadura Postiza*) ☐ Upper (*Superior*) ☐ Lower (*Inferior*) ☐ **Removable Bridge**: (*Removible Puente*) ☐ **Glasses**: (*Anteojos*) Describe (*Describa*)_____ ☐ **Contact Lens** (*Lentes de Contacto*) ☐ **Medical Appliance** (*Dispositivo Médico*) Describe (*Describa*)_____ ☐ **Clothing** ☐ Hat or Cap (*Sombrero o Gorra*) ☐ Jacket/Sweater (*Chaqueta/Suéter* ☐ Shirt or Blouse (*Camisa o Blusa*) ☐ Dress (*Vestido*) ☐ Pants (*pantalones*) ☐ Underwear (*Ropa Interior)* ☐ Undershirt *(Camiseta*) ☐ Bra (*Sostén*) ☐ Pajamas/nightgown (*Pijama/Camisón)* ☐ Robe (*Bata*) ☐ Socks or Hose (*Calcetines o Medias*) ☐ Shoes/Slippers (*Zapatos o chanclas*) ☐**Other**_____ _____ _____

The above list of property is complete and accurate (*La lista de bienes arriba mencionada es correcta y completa*):

Patient/Representative: (*Paciente*)_____ Witness: (*Testigo*) _____
Date/Time:_____

TRANSFER RECORD

Date	Time	From	To	Sent By	Received By	Property remain same as above	If different, complete new form

DISCHARGE RETURN OF VALUABLES *(Devolucion De Objectos De Valor)*
Received All Property Listed Above (*Se recibieron todos los bienes arriba mencionados*)

Returned By (*Devueltos por*) _____ To (Recibidos por) _____ Date/Time_____
Patient/Responsible Party
(*Paciente/Pariente Responsable*)

Riverside University Health System Medical Center
Moreno Valley, California 92555

PATIENT'S PROPERTY AND TRANSFER RECORD
111 Rev. 10/16
Chart-Green; White-ED, Yellow- Patient, Blue-Safe (Attach to Property Bag)

VALUABLES TO FLOOR: MONEY — **NONE** ☐

OTHER —

DATE:

NONE ☐

UNIT:

VALUABLES TO BUSINESS OFFICE

OTHER PROPERTY	DATE	REFERENCE	PATIENT'S CASH		
			IN	OUT	BALANCE

The above is a correct statement of valuables deposited with this Hospital on the above date and the patient, consideration of his (her) admission to and treatment by the Hospital release the Hospital from liability for loss and all property and valuables retained by him (her).

IMPORTANT NOTICE: Valuables in safekeeping may be released only during business hours, 8:00 a.m. - 4:30 p.m. weekdays. Arrangements must be made in advance for other hours.

(Signature of Patient or Guardian) Date (Employee receiving property from patient) Date

Valuables turned in by:

Date CASHIER: Date

Received valuables noted above in full:

(Signature of person receiving valuables) Date

Riverside University Health System
Medical Center & Community Health Centers

PATIENT'S VALUABLES RECORD

249 Rev. 1/98

NOTE White-Chart, Yellow-Cashier, Pink-Patient

BELONGINGS LEFT BEHIND

**Attach Completed Tag to Bag Exterior*

INSERT PATIENT'S STICKER HERE	ROOM: _____ DATE: _____ TIME: _____ SENDING STAFF NAME: _____ RECEIVING STAFF NAME: _____
BRIEF LIST OF ITEMS SENT:	

Do Not Send Soiled Items. Send All Valuables or Items with Sentimental Value

MAKE A COPY OF COMPLETED FORM AND PLACE IN UNIT LOG
THANK YOU!

BELONGINGS LEFT BEHIND

**Attach Completed Tag to Bag Exterior*

INSERT PATIENT'S STICKER HERE	ROOM: _____ DATE: _____ TIME: _____ SENDING STAFF NAME: _____ RECEIVING STAFF NAME: _____
BRIEF LIST OF ITEMS SENT:	

Do Not Send Soiled Items. Send All Valuables or Items with Sentimental Value

MAKE A COPY OF COMPLETED FORM AND PLACE IN UNIT LOG
THANK YOU!

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 559	Page 1 of 2
Title: Handling of Patient Linen	**Effective Date:** 5/15/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental.**
Approved By: Jennifer Cruikshank CEO/Hospital Director		☐ **Policy** ☒ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 Provides guidelines for handling patient linen in the Medical Center, which includes the Arlington Campus.

2. DEFINITION:

2.1 Underpad. A large disposable pad consisting of a thick layer of highly absorbent batting with a waterproof synthetic backing. These are frequently used in childbirth, and any other medical situation where a large amount of blood or other body fluid may be discharged.

3. PROCEDURE:

3.1 Environmental Services (EVS) is responsible for cleaning bed surfaces and changing linen between patients, using a consistent standard for beds and linens according to departmental procedure EVS 017 Patient Rooms After Discharge Cleaning

a. For Arlington Campus, the Facilities Management is responsible.

b. For ED, OR, and L&D, appropriate team member(s) within their respective departments is(are) responsible.

3.2 Any pillows, towels, and linens additional to that standard will be provided upon patient/family request.

3.3 Linen changes will occur on an ‘as needed’ basis by nursing units for inpatients as outlined below:

a. Bed Linen will be changed by nursing units when wet, visibly soiled or when contaminated with blood or body fluids.

b. Linen will be changed any time the patient/family requests.

c. Bed linen will be refreshed daily. This includes checking for and replacing soiled linen, pillow fluffed/re-shaped, and fitted sheet secured and smoothed, flat sheet smoothed, blanket smoothed and folded neatly.

d. Supplemental Linen – items such as underpads and draw sheets will be provided based on an assessment of patient need and not as a routine standard of care.

3.4 Extra linen will not be stored in the patient’s room prior to use. Gowns will not be stored in the patient’s room prior to use but be made available at the time of patient use. Exceptions in identified patient care areas with covered or closeted linen supplies that are not readily accessible to patients or public. Example: Emergency Department.

3.5 Transferring patients:

a. Every effort will be made to conserve the use of patient's linen when transferring patients to a bed or gurney.

b. Exception: Infection Control (IC) Policy HW 1101 Transmission Based Precautions will be followed when transporting isolation patients.

3.6 Linen must ***not*** be used for unintended purposes such as cleaning environmental spills, for staff convenience or warmth.

3.7 Soiled linen should be handled as little as possible and with a minimum of agitation to prevent gross microbial contamination of the air and or persons handling the linen.

a. Soiled linen will be handled in accordance with Standard Precautions.

b. Appropriate personal protective equipment (PPE) will be utilized when handling soiled linen.

c. Any unused linens that remain in patient care areas after discharge are to be removed by nursing and placed in the soiled linen receptacles.

3.8 Transportation companies are expected to provide linens for patient use when transporting patients off site.

4. REFERENCES

4.1 CA Health & Safety Code § 1275.8 (2022). https://law.justia.com/codes/california/2022/code-hsc/division-2/chapter-2/article-3/section-1275-8/

4.2 Environmental Services procedures EVS 017 Patient Rooms After Discharge Cleaning

4.3 RUHS policy HW 1101 Transmission Based Precautions

Document History:

Prior Release Dates: New		**Retire Date:** N/A	
Document Owner: Director of Nursing - 3500		**Replaces Policy:** Nurs 104 Linens, 11/30/2013; 3/21/2018; EVS 90 Linen Handling, IC 10-11 Laundry Services, & Material Management MAT 18 Linen Managment	
Date Reviewed	**Reviewed By:**	**Revisions Made Y/N**	**Revision Description**
1/30/24, 2/13/24	3500 Director, Director of Quality, Regulatory Compliance Specialist, EVS Manager, Infection Prevention and Control Manager		Title change, modification of 2.4, 2.7, and removal of 2.8.
2/29/2024	Pre-Nursing P&P	Yes	Rachel Obi to decide if Arlington to be included. Section 2.1 3.3 verbiage change. 3.1 – EVS cleaning for ED or OB. Laundry service reference for title 22
3/27/2024	Nursing P&P	Yes	3.1- add the process for bed/gurney cleaning for ED, L&D and OR
4/7/2024	Policy Approval Committee	Yes	Update Infection Control Reference

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 1107	Page 1 of 4
Title: Tuberculosis Control Plan	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 The policy of Riverside University Health System – Medical Center (RUHS-Medical Center) is to minimize employee exposure to, and subsequent infection with, tuberculosis.

2. GUIDELINE

2.1 Risk Assessment

a. A Tuberculosis (TB) risk assessment is included in the facility's annual Infection Prevention and Control Risk Assessment, which is performed annually and includes analysis of community prevalence, employee conversion rates, and assessment of engineering and administrative controls, and personal protective equipment (PPE).

b. The data from the risk assessment will be used to determine control measures to be implemented by the facility to prevent the transmission of TB.

2.2 Screening and Assessment of Patients

a. Patient admitted with signs/symptoms of TB will be screened by a healthcare provider and placed on Airborne Precautions based on clinical judgement, to reduce the risk of transmission of TB.

2.3 Employee Screening and Exposure

a. All qualified applicants for employment shall be screened for the presence of infection with M. tuberculosis by the Occupational Health Department.

b. Current employees will be screened on an ongoing basis based on location of assignment.

c. In the event of a documented exposure to a diagnosed case of pulmonary TB, all exposed employees will be referred to the Occupational Health Department for follow up.

d. Non-pulmonary TB exposures will be evaluated on a case-by-case basis.

2.4 Employee Education

a. Employees are trained at hire and then annually regarding proper N-95 respirator usage, Airborne Isolation indications, and PPE requirements based on job classification

2.5 Engineering Controls

a. Airborne Infection Isolation Room (AIIR) Validation

b. AIIRs occupied by a suspected or confirmed TB patient are checked daily to verify negative pressure.

c. All AIIRs are checked manually monthly to verify negative pressure by the Infection Prevention and Control Department or Plant Operations.

d. Negative pressure is monitored and maintained through electronic monitoring systems by Plant Operations.

2.6 Administrative Controls

a. Patient Placement

- Suspected or confirmed pulmonary TB patients must be placed in an AIIR. Door must remain closed to ensure negative pressure. Suspected or confirmed non-pulmonary TB patients may require a negative pressure room based on procedure being performed.
- If an AIIR is unavailable, the patient will be placed in a private room with appropriate isolation signage posted. The door is to remain closed, and the patient should wear a surgical mask unless medically contraindicated.
- A patient identified at the Arlington Campus will be masked with a surgical mask and placed in a private room with the door closed, pending transfer to RUHS-Medical Center.

b. Patient Care Considerations

- Every effort should be made to schedule suspected or confirmed TB patients as the last procedure of the day when needing surgery or diagnostic procedures that cannot be performed in the patient's room.
- For suspected or confirmed TB patients in Labor & Delivery (L&D) and Obstetrics (OB), consult the Pediatric Infectious Disease Service regarding breastfeeding, in-room housing, or skin to skin contact. Recommendation will be made in conjunction with the Department of Public Health. It is recommended that infants be separated from birth mother until further evaluation by the Pediatric Infectious Disease service and consultation with the Department of Public Health is performed.
- Surgical or procedure masks are strongly recommended for all visitors of suspected or confirmed TB patients and we encourage limited visitation to reduce exposure.
- Suspected or confirmed TB patients are allowed to ambulate in the unit or outside the facility. A surgical or procedure mask must be worn while in the facility. The door to the patient's room must remain closed, even if unoccupied.

2.7 Personal Protective Equipment (PPE)

a. Respirators

- An N-95 respirator or a powered air purifying respirator (PAPR) must be worn by employees who enter the room.
- Employees will be fit tested for the N-95 respirator upon hire, if physical changes occur and annually, according to job classification
- N-95 respirators must be discarded after each use, or sooner if it becomes moist, soiled, or no longer seals properly.
- Reuse of disposable N-95 respirators is only allowed during extreme supply shortages as defined by state or county Department of Public Health.
- PAPRs will be cleaned and disinfected after each use.

2.8 Transport Within the Facility

a. Procedures should be performed in the isolation room whenever possible.

b. Patient must be masked with a surgical or procedure mask when being transported to other areas of the facility.

2.9 Discharge Approval

a. Suspected or confirmed TB patients require Department of Public Health approval prior to discharge. Discharge approval process is the responsibility of Case Management and should be initiated as soon as possible prior to discharge to ensure timely approval.

b. The Department of Public Health must be notified of suspected or confirmed TB patients that leave against medical advice (AMA).

2.10 Terminal Cleaning

a. All rooms occupied by suspected or confirmed TB patients will be terminally cleaned at discharge or transfer. EVS shall wait one hour prior to cleaning room in an AIIR and two hours in a non-negative pressure room.

2.11 Transport Outside of the Facility

a. The transporting agency will be notified of the suspected or confirmed diagnosis and should follow their agency's protocol.

3. REFERENCES

3.1 APIC Text of Infection Control and Epidemiology. 4th Edition. Washington, DC: APIC, 2014

3.2 AIA, 2006 Guidelines for Design and Construction of Health Care Facilities by the Facility Guidelines Institute and the AIA Academy of Architecture for Health, with assistance from the U.S. Department of Health and Human Services. 2006

3.3 CDC Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005, MMWR 54 (RR-17): pp. 1-141

Document History:

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Date Reviewed	**Reviewed By:**	**Revisions Made Y/N**	**Revision Description**
1-2024	Infection Prevention and Control Committee	Yes	Streamlined wording, updated current practices. Removed Occupational Health Department's practices, combined policies 8-9 and 8-10.
1-2024	Occupational Health Department	No	
2/15/2024	Nursing Policy and Procedure	No	
2/16/2024	PAC	No	
5/9/2024	MEC	No	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 601.1	Page 1 of 4
Title:+ Mental Health Patient Rights	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. **DEFINITIONS**

   1.1 Conservatorship. Court appointed to arrange for care and protection, decides where conservatee will live, and is generally in charge of health care, food, clothes, personal care, housekeeping, and transportation of another person.

2. **POLICY**

   2.1 Mental Health patients have the right to:

   a. Wear their own clothes.

   b. Keep and use their own personal possessions, including toilet articles.

   c. Keep and be allowed to spend a reasonable sum of their own money for minor expenses and small purchases.

   d. Have access to individual storage for their own private use.

   e. See visitors each day.

   f. Have reasonable access to telephones, both to make and receive confidential calls or to have such calls made for them.

   g. Have reasonable access to letter writing materials, including stamps, and to mail and receive unopened correspondence.

   h. Refuse convulsive treatment. (NOTE: RUHS – Medical Center does not provide electroconvulsive treatment (ECT) on site at any of its facilities but may make a referral for the patient to another hospital for this purpose).

   i. Refuse psychosurgery.

   j. See and receive the services of a patient advocate who has no direct or indirect clinical or administrative responsibility for the person receiving mental health services.

   k. Other rights, as specified by regulations.

2.2 Notification of Rights

a. Upon admission, each mental health patient will be notified personally of their rights in writing, in a language understandable by the patient or will have the rights conveyed by other means as necessary. Giving each mental health patient a copy of the Patient Rights Handbook fulfills this requirement in most cases. A notation to the effect that notification, or an attempt to provide notification, has occurred, will be entered into the patient's medical record within 24 hours of admission by the nurse.

b. Incomplete advisement may occur by necessity under certain circumstances. The nurse will document the good cause for incomplete advisement, ensuring that subsequent attempts to advise are made and documented as well.

2.3 Posted Rights Listing. A listing of mental health patient rights shall be posted in English and Spanish at each nursing station where mental health patients have beds in the unit. The listing include:

a. Name, telephone number, availability of the RUHS – Medical Center Hospital Patient advocate.

b. Riverside County Department of Mental Health Patient Rights' Advocate to whom a complaint may be directed.

c. Name and phone number of the State Patient's Rights Office.

2.4 Denial of Rights. The Chief of Psychiatry or designee may for good cause deny a person any of the rights listed under W&IC Section 5325 except for letter writing materials as listed in 2.1 g. above. The right to have reasonable access to telephones as listed in 2.1 f. above, may be denied only under the conditions specified in Section 5325.7 of the W&IC.

a. The good cause for denial will meet the definition stated in Title 9, Article 6, Section 865.2. Good cause exists when there is good reason to believe that:

- The exercise of a specific right would be injurious to the patient; or
- The exercise of a specific right would seriously infringe on the rights of others; or
- The hospital suffer serious damage if the specific right is not denied;and
- There is no less restrictive way of protecting the interests specified in above.

b. The reason used to justify the denial of a right must be related to the specific right denied.

c. A right will not be withheld or denied as a punitive measure nor will a right be considered a privilege to be earned.

d. Treatment modalities will not include denial of any right.

e. Waivers signed by a patient or responsible relative/guardian/conservator will not be used as a basis for denial of a right.

f. Parents, conservators, or other legally responsible persons (other than the licensed psychiatrist) shall not be allowed to deny patient rights of a minor.

g. Each denial of a patient's right will be documented in the medical record, and the patient will be informed of the content of the documentation. Documentation will occur immediately upon denial of the right and will include:

- The date and time of the right was denied.
- The specific right denied.
- Good cause for denial of the right.
- Date of review if denial is extended beyond 30 days.
- Signature of the Chief of Psychiatry or designee.
- Use of restraints or seclusion constitutes denial of rights and must be documented in the case record.

2.5 Restoration of Rights.

a. A right may not be denied to a patient when good cause for that right no longer exists.

b. Staff must employ the least restrictive method of managing the problem that led to the denial.

c. The date a specific right is restored must be documented in the patient record.

2.6 Rights Which Cannot be Denied. Section 5325.1 of the W&IC adds the following rights, which may not be denied:

a. A right to treatment services which promote the potential of the person to function independently. Treatment shall be provided in ways that are least restrictive of personal liberty of the individual.

b. A right of dignity, privacy and humane care.

c. A right to be free from harm, including unnecessary or excessive physical restraint, isolation, medication, abuse or neglect. Medication shall not be used as punishment, for the convenience of staff, as a substitute for a treatment program, or in quantities that interfere with the treatment program.

d. A right to prompt medical care and treatment.

e. A right to religious freedom and practice.

f. A right to participate in appropriate programs of publicly supported education.

g. A right to social interaction and participation in community activities.

h. A right to physical exercise and recreational opportunities.

i. A right to be free from hazardous procedures.

2.7 Monthly Report. Nursing Administration will prepare a monthly report of the number of mental health persons whose rights were denied and the specific right or rights denied for submission to the Department of Mental Health.

3. REFERENCES

3.1 RUHS – Medical Center policy HW 630 Restraints and Seclusion

3.2 W&IC Section 5325

3.3 Title 9, CCR Section 862

3.4 Title 22 CCR Section 71507; Welfare and Institutions Code 5326

3.5 Title 9 CCR, Section 865.3 and 865.4

Document History:

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Date Reviewed	**Reviewed By:**	**Revisions Made Y/N**	**Revision Description**
5/2024	Terri Cohn	n	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 632	Page 1 of 2
Title: Patient Discharge Planning and Patient Discharge	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. DEFINITIONS

1.1 Multidisciplinary team: Representatives from the clinical departments involved in the provision of care during the course of the patient's hospitalization, such as nursing, respiratory, rehabilitation services, nutrition, case management, social work, community agencies, and other service agencies as required to provide treatment and services to the patient.

1.2 AVS (After Visit Summary): After care instructions provided to patients that will contain key information about their medication, treatment, follow-up appointments, education references about care needs and agencies/community referrals continued care transition after discharge.

2. GUIDELINES

2.1 Discharge Planning

a. Discharge planning will begin at the time of admission to allow the patient and patient's family to participate in the development and implementation of his/her discharge plan. RUHS – Medical Center staff shall screen for and address any special or high risk needs by using discipline specific assessment forms.

b. Upon admission nursing staff will:
   i. Assess potential discharge needs.

c. During the inpatient stay, the multidisciplinary team will:
   i. Identify any potential barriers or challenges to the discharge plan and make referrals to the appropriate department for assessment and intervention, as necessary.
   ii. Involve and include the patient and/or the patient's representative in developing a discharge plan.
   iii. Conduct interdisciplinary patient care conferences as needed.

2.2 Discharge Orders and Documentation

a. Discharge orders will be signed by a licensed providers (Nurse Practitioner/ Physician) as early as possible in order to provide nursing staff sufficient time for processing the discharges.

b. Orders requiring coordination of
after care plans will be referred to appropriate community resources and placement referrals as needed. Case Managers and/or Social Services will be involved assisting patients and/or family members or interested persons with choices for these referral options for post-hospital care that are appropriate based on their care needs and insurance coverage. This may include but not limited to care at home, in a skilled nursing or intermediate care facility or from a hospice program. Patient's designated family caregiver or interested person will be of patient's discharge or transfer to another facility, as soon as possible.

c. The attending physician will:
   i. Inform the patient and/or patient's family of continuing health care requirements (a designee may also provide this information).
   ii. Provide medication orders prior to discharge.
   iii. Complete a medication reconciliation.
   iv. Sign the discharge summary.

d. Follow-up appointments with PCPs, Health Care Specialists and/or Mental Health Services will be scheduled, as required.

e. AVS (After Visit Summary) will be provided to the patient which will include:
   i. Medication summary with instructions.
   ii. Follow-up appointment instruction with providers.
   iii. Agencies contact information will be documented for patient/family reference.

3. REFERENCES

3.1 California Code of Regulations, Title 22, General Hospital, Article 7 Administration (HSC 1262.5 pages 196-198)

3.2 California Department of Public Health, AFL Senate Bill (SB) 675: Hospital Discharge Planning and Family Caregivers, December 7, 2015.

3.3 RUHS – Medical Center policy HW 632.1 Discharge Planning – Homeless Patients

3.4 RUHS – Medical Center policy HW 648 Referrals to Other Facilities

3.5 RUHS – Medical Center policy HW 656 EMTALA Screening Stabilizing and Transfer of Patients with Emergency Medical Conditions

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5/2024	Executive Director, Business Development & Service Lines	No	Re-sign

RIVERSIDE UNIVERSITY HEALTH SYSTEM
Housewide

	Document No: 665	Page 1 of 5
Title: Provision of Emergency Cardiovascular Care Training Courses	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☒ **RUHS – Community Health Centers** ☒ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental.**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 The provision of all American Heart Association (AHA) courses that include Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS), and the American Academy of Pediatrics (AAP) Neonatal Resuscitation Program (NRP) shall be conducted in accordance with the AHA program administration guideline (PAM), the AAP program guidelines, and the Riverside University Health System (RUHS) Medical Center Department of Education Services policies and standard operating procedures manual.

2. DEFINITIONS

2.1 Advanced Cardiac Life Support (ACLS): A group of interventions used to treat and stabilize adult victims of life-threatening cardio-respiratory emergencies and to resuscitate victims of cardiopulmonary arrest. These interventions include but are not limited to the provision of cardiopulmonary resuscitation (CPR), basic and advanced airway management, medications, and defibrillation.

2.2 Basic Life Support (BLS): A group of interventions used to treat and stabilize adult victims of life-threatening cardio-respiratory emergencies and to resuscitate victims of cardiac arrest. Interventions include but are not limited to the recognition of cardiopulmonary emergencies or stroke and to activate the emergency response team (code team), implement cardiopulmonary resuscitation (CPR), utilize the automatic external defibrillator (AED), and assist with foreign-body airway obstruction relief.

2.3 Neonatal Resuscitation Program (NRP): a resuscitation training program designed for use with Neonates (0-28 days of life) developed by AAP in conjunction with AHA

2.4 Pediatric Advanced Life Support (PALS): A group of interventions used to treat and stabilize pediatric victims of life-threatening cardio-respiratory emergencies and to resuscitate victims of cardiopulmonary arrest. These interventions include but are not limited to the provision of CPR, basic and advanced airway management, medications, and defibrillation.

2.5 Emergency Cardiovascular Care (ECC): is the term used to describe urgent diagnosis and treatment of cardiovascular emergencies such as cardiac arrest, respiratory arrest, near-drowning, choking and heart attack.

2.6 Program Guidelines: consists of the AHA current guideline for cardiopulmonary resuscitation and emergency cardiovascular care (ECC), and the program administration manual (PAM). Both manuals are supplemented by the AHA to all training centers and instructors.

2.7 Program Administration Manual (PAM): is a manual provided by the AHA to guide training center coordinators and their instructors in the management of ECC programs.

2.8 Training Center (TC): is an entity formally authorized by the AHA to carry-out the activities of a training center as described in the AHA program guidelines.

2.9 Training Center Coordinator (TCC): is a Master's-prepared nursing education instructor assigned to the Education Department and appointed by the Director of Education Services as a Training Center Coordinator (TCC). The TCC acts as a liaison between County of Riverside, a political subdivision of the State of California, on behalf of the Riverside University Health System-Medical Center and the American Heart Association and meets all required knowledge and technical skills to perform the function of an AHA TCC.

2.10 Training Site (TS): is defined as any person or organization engaged or authorized by an AHA training center to teach courses through the use of qualified instructors, and for whose instructors will provide TC with copies class rosters.

2.11 Instructors: is described as any person(s) who meet the requirements for instructors under the PAM, and who are engaged or authorized by the training center(s) to teach the AHA and NRP courses.

2.12 eCard: an electronic record indicating that a student participated in or successfully completed a course.

2.13 MyCards an instrument use to manage eCards, student data, and survey processes and information.

2.14 Feed-back device: an instrument used to objectively measure compression rates, depth, and provides real-time audio or visual (or both) feedback on the student's performance. These devices can be integrated into a manikin or as an accessory to a manikin.

3. POLICY

3.1 RUHS only recognizes the AHA BLS, ACLS, and PALS provider certification courses. An AHA provider card (including e-cards) ~~are~~ is required as evidence of completion of ECC training in accordance to the condition for employment for CPR training requirements.

a. Excluding Licensed Practitioners in the Community Health Clinics.

3.2 All AHA and AAP training programs for emergency cardiovascular care shall be conducted by instructors appointed by the TCC in accordance with the AHA and NRP standards, and the education department's policy governing AHA programs and the Board of Registered Nursing (BRN) continuing education programs.

3.3 The RUHS Medical Center Education Department shall be the designated primary training site for the training center, all AHA and AAP NRP-related

courses within the RUHS
training center's geographical region shall be coordinated by the Education Department's TCC.

3.4 The education department TCC or designee shall provide instructions to students on how to register and access the AHA and AAP-related courses and requirements for completion.

a. Successful completion of the AHA courses requires completion of self-learning computer-based online courses and skills demonstration using feed-back devices.

3.5 All flyers and advertisings using the AHA and AAP NRP ECC guidelines for courses conducted within County of Riverside, a political subdivision of the State of California, on behalf of the Riverside University Health System-Medical Center geographical region and its authorized training sites shall be reviewed and approved by RUHS TCC prior to publication.

3.6 Training Center Responsibilities:

Under the direction of the Director of Education Services and the TCC and in compliance with the AHA guidelines, RUHS training center shall:

a. Conduct courses at the training center and authorize instructors or training sites to be able to conduct courses only within the Geographic Territory.

b. Appointment of a Training Center Coordinator (TCC) and designate the TCC as the liaison between the AHA and the County of Riverside, a political subdivision of the State of California, on behalf of the Riverside University Health System-Medical Center in accordance with the AHA guidelines.

c. Ensures that a newly appointed TCC attends an orientation with the AHA within twenty (20) business days following his or her designation as a TCC coordinator.

3.7 Training Center Coordinator Responsibilities. The TCC shall be responsible for:

a. Reviewing, operationalizing, and managing all AHA and AAP-related courses in compliance with the AHA and AAP program guidelines, and the education services policy and standard operating procedures (i.e. record keeping, equipment maintenance, eCard security and distribution).

b. Ensuring that all courses taught by the training center, its training sites, and or instructors conform to the requirements of the AHA program guidelines and the curriculum set out in the applicable AHA instructor's manual.

c. Ensuring that the training center activities complies with the requirements of the AHA program guidelines including but not limited to: promptly notifying, forwarding or otherwise communicating to its training sites and instructors all correspondence from the AHA regarding changes to science or curricula and ensuring training centers and sites properly issue completed eCards within twenty (20) business days following receipt of completed roster and course documents from instructors.

d. Ensuring that the training center safeguard's all eCards from unauthorized distribution, including but not limited to complying with the requirements in the AHA PAM.

e. Maintaining an up-to-date list of all training center and training site instructors and provide information to AHA as requested in accordance with the AHA program guideline.

f. Developing continuous quality improvement plans and systematically implement plans using current evidence and quality improvement tools and processes to improve the delivery of instructional training as well as improving student's performance and knowledge retention.

   i. Develop metrics to measure process, performance and outcomes

   ii. Analyze and synthesize data based on measured quality indicators and report outcome to the Director of education services.

   iii. Provide data or reports to the AHA in accordance with the program guideline.

g. Participates in the hospital-based code blue committee meetings

h. Developing and updating AHA-related internal policies and procedures.

3.8 For other policies relating to the AHA and its programs, please refer to the Education Services Department Policy Manual and SOP.

4. REFERENCES

4.1 American Heart Association (AHA). (2020). Program guidelines for cardiopulmonary resuscitation and emergency cardiovascular care (ECC). Retrieved from https://eccguidelines.heart.org/circulation/cpr-ecc-guidelines/

4.2 American Heart Association. Program administration manual. https://atlas.heart.org/home/static/PAM?pageCode=PAM&contentId=b42e503791024ed7844cccf7972956d9&isDisplayName=PAM

Document History:

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5/9/2024	MEC	No	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
HOUSEWIDE

	Document No: 677	Page 1 of 7
Title: Medication: IV Thrombolytics for Use in Acute Ischemic Stroke	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. DEFINITIONS

1.1 National Institute of Health Stroke Scale (NIHSS): Defined as a standardized method used by healthcare professionals to measure the level of impairment caused by stroke.

2. COMPETENCY

2.1 Registered nurses who work in critical care areas (Emergency department, Adult Critical Care Unit and Progressive care unit) must complete the online IV thrombolytic training module prior to administration of intravenous IV thrombolytics for treatment of acute ischemic stroke.

3. GUIDELINES

3.1 IV thrombolytics will be given according to physician orders for patients experiencing acute ischemic stroke (AIS) by qualified staff, and in accordance with manufacturer's recommendations or best practice.

3.2 IV thrombolytics shall be initiated within 4.5 hours of last known well time, after brain imaging excludes intracranial hemorrhage.and after indications and contraindications are reviewed.

3.3 Medication will be infused via a smart infusion pump utilizing the drug library or via intravenous push (IVP) as appropriate. A second RN or pharmacist will perform an independent double check to confirm that: (1) the correct medication, route and dose have been prepared and (2) the infusion pump was programmed correctly if applicable.

3.4 The potential risks, benefits, and alternatives of IV thrombolytics will be reviewed prior to administration as per the Informed Consent policy.

3.5 1:1 nursing ratio shall be implemented for the first 8 hours of the IV thrombolytic administration or longer based on therapeutic response and/or physician order.

4. PROCESS

4.1 IV thrombolytic Tenecteplase (TNKase®) is the preferred medication for acute ischemic stroke.

a. Alteplase may be used if Tenecteplase is unavailable.

4.2 IV thrombolytic is to be reconstituted by a pharmacist or RN deemed competent.

4.3 Obtain patient weight in kilograms.

a. Refer to Nursing Department policy, Clinical Practice Providing Care: Patient Weight Practice.

4.4 Obtain baseline National Institute of Health Stroke Scale (NIHSS).

4.5 Verify that systolic blood pressure (SBP) is less than 185 mmhg and diastolic blood pressure (DBP) less than 110 mmhg prior to the administration of IV thrombolytics.
a. Notify the physician immediately if SBP is greater than 185 mmhg and DBP is greater than 110 mmhg for intervention orders.

5. DOSAGE AND ADMINISTRATION

5.1 The recommended dose of Tenecteplase (TNKase®) is 0.25mg/kg.

a. The total dose for treatment of acute ischemic stroke shall not exceed 25 mg.

b. A dedicated IV line is required for administration of IV Tenecteplase (TNKase®).

c. The dedicated IV line is to be flushed and patency ensured prior to administration of Tenecteplase (TNKase®).

d. Administer as a single IV bolus over 5 seconds.

- Tenecteplase (TNKase®) is ***incompatible*** with dextrose.
- Flush dextrose containing lines with saline before and after Tenecteplase administration.

5.2 The recommended dose of Alteplase (Activase ©) is 0.9mg/kg to be used <u>only if there is a Tenecteplase shortage</u>.

a. The total dose for treatment of acute ischemic stroke shall not exceed 90mg.

b. The discard quantity shall be removed prior to medication delivery and verified by a second RN unless reconstituted by a pharmacist.

c. A dedicated IV line is required for the administration of Alteplase.

d. The dedicated IV line is to be flushed and patency ensured prior to administration of Alteplase.

e. The initial 10% bolus dose is delivered IV push over one minute or via a smart infusion pump.

f. The remaining 90% of the Alteplase dose is to be infused over 60 minutes via a smart infusion pump.

g. 0.9% Normal saline will be infused after the IVPB at the same rate to ensure the full dose is received.

6. MONITORING

6.1 Monitor vital signs and neurological assessments during and following IV thrombolytic administration:

a. Every 15 minutes x 2 hrs.

b. Proceed to every 30 minutes x 6 hrs.

c. Proceed to every 1-hour x 16 hours.

6.2 NIHSS assessment:

a. Baseline NIHSS to be completed prior to start of thrombolytic therapy.

6.3 Monitor blood pressure:

a. Blood pressure should be maintained systolic blood pressure (SBP) less than 180 mmHg or diastolic blood pressure (DBP) less than 105 mmHg during and post IV thrombolytic administration for 24 hours.

b. Notify appropriate provider for SBP greater than 180 mmhG or DBP greater than 105 mmhG for intervention orders.

6.4 Continue to reassess and monitor the patient's neurological status. Report any changes immediately to the appropriate provider.

6.5 IV thrombolytic side effects may include, but are not limited to:

a. Bleeding

b. Headache

c. Decreased level of consciousness (LOC)

d. Angioedema

6.6 Intracranial hemorrhage should be suspected secondary to IV thrombolytic administration if the patient exhibits the following signs:

a. Onset of new headache.

b. Nausea and/or vomiting.

c. Change in level of consciousness.

d. Elevation of blood pressure.

e. Deterioration in motor examination.

6.7 If intracranial hemorrhage is suspected:

a. *Discontinue* IV thrombolytic *immediately if applicable.*

b. Notify the treating physician *immediately.*

c. The physician is to consider the following:

- STAT CT scan of head without contrast.
- Neurosurgery consult
- PTT/PT, INR, CBC with platelets, & fibrinogen level.

- 2 pooled units of cryoprecipitate containing factor VIII IV infusion. Infuse over 10-30 min (onset in 1 hour, peaks in 12 hours).

  i. If cryoprecipitate is contraindicated, tranexamic acid 1000mg IV infuse over 10 minutes.

6.8 Angioedema should be suspected secondary to IV thrombolytic therapy administration if the patient exhibits the following signs:

a. Acute swelling of the lips or tongue

b. Altered voice

c. Complaints of dysphagia

- May be associated with patients that take angiotensin-converting enzyme inhibitors.
- Usually occurs near the end or shortly after the infusion has completed.

6.9 If angioedema is suspected:

a. Notify the treating physician immediately.

b. The physician is to consider the following:

- Maintain airway

  i. Endotracheal intubation may not be necessary if edema is limited to anterior tongue and lips.

  ii. Edema involving the larynx, palate, floor of mouth, or oropharynx with rapid progression (within 30 minutes) poses higher risk of requiring intubation.

  iii. Awake fiberoptic intubation is optimal. Nasal-tracheal intubation may be required but poses risk of epistaxis post IV thrombolytic. Cricothyroidotomy is rarely needed and problematic after IV thrombolytic.

- Discontinue IV thrombolytic and hold any angiotensin-converting enzyme inhibitor (ACEI)
- Administer IV methylprednisolone 125 mg.
- Administer IV diphenhydramine 50 mg.
- Administer IV famotidine 20 mg.
- If further increase in angioedema, administer epinephrine 0.5mg intramuscularly or by nebulizer 0.5 mL.

7. DOCUMENTATION

7.1 Document response to therapy and other interventions as appropriate.

7.2 Document on Medication Administration Record (MAR) per High Alert Medication Policy.

8. PRECAUTIONS

8.1 Standard Precautions.

8.2 No anticoagulation or anti-platelet medication for 24 hours post IV thrombolytic administration.

8.3 Avoid intramuscular (IM)injections, naso-gastric (NG) tube placement, invasive procedures or invasive line placement for 24 hours post IV thrombolytic administration.

8.4 Avoid indwelling urinary catheter
placement during and 30 minutes post IV thrombolytics infusion.

8.5 IV thrombolytic is for intravenous administration only. Extravasations of thrombolytics can cause ecchymosis and/or inflammation.

a. Extravasation management consists of terminating the infusion at the IV site and application of local therapy.

9. RELATED POLICIES

9.1 Nursing Department Policy, Clinical Practice Providing Care: Patient Weight Practice.

9.2 House wide policy, Medication Administration.

9.3 House wide policy, High Alert Medications.

9.4 House wide policy, Informed Consent.

10. ATTACHMENTS

10.1 Attachment 1- Guideline of Emergent Life-Threatening Reversal of Bleeds Induced by IV thrombolytics

11. REFERENCES

11.1 Burgos, A.M., Saver, J.L, (2019). Evidence that Tenecteplase Is Non inferior to Alteplase for Acute Ischemic Stroke: Meta-Analysis of 5 Randomized Trials. *Stroke. 2019; 50: 2156-2162.*

11.2 Campbell, B.C.V, Mitchell, P.J., Churilov, L., Yassi, N., Kleinig, T.J., et al. (2018). Tenecteplase versus Alteplase before Thrombectomy for Ischemic Stroke. *The New England Journal of Medicine. 2018; 378:17.*

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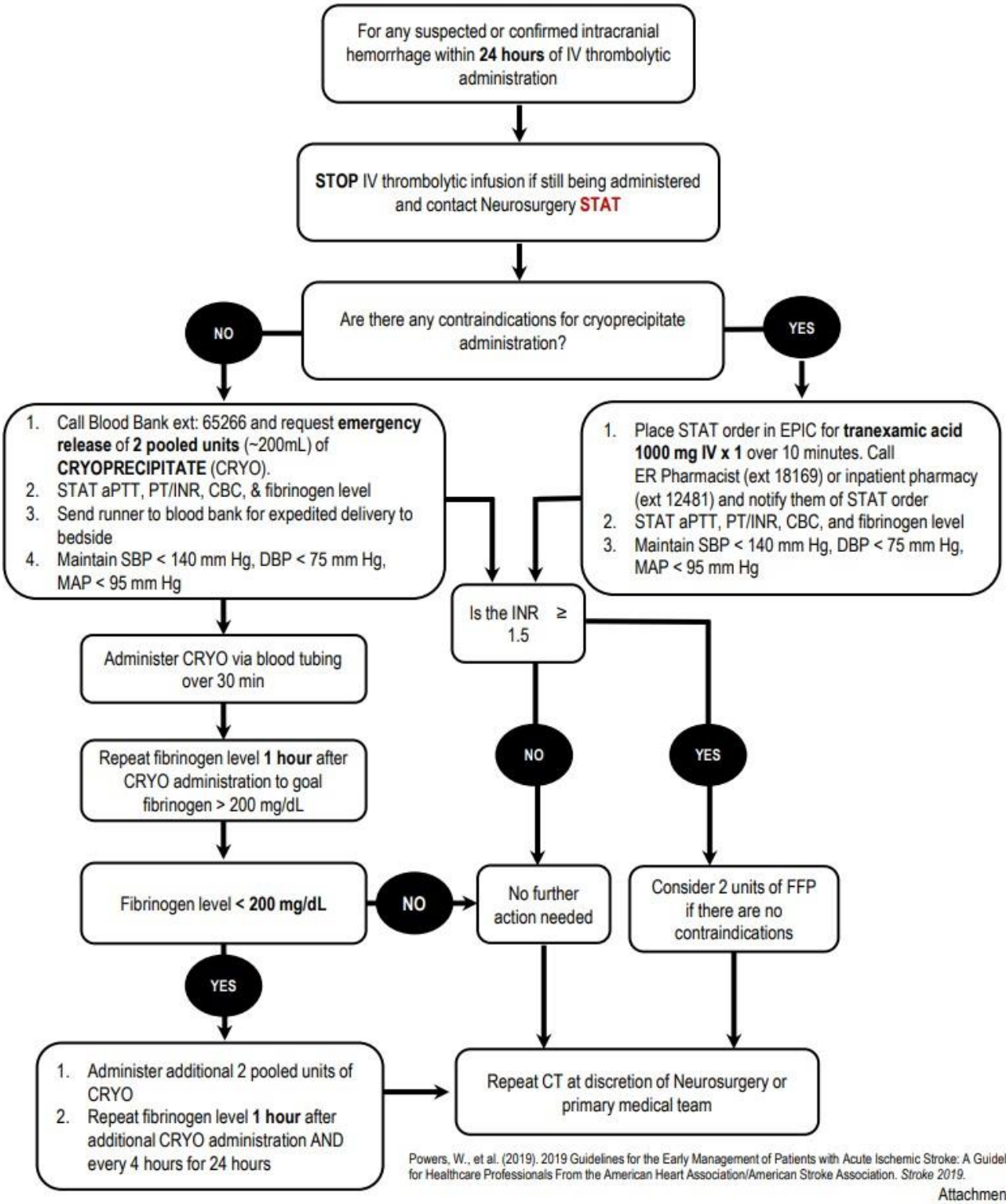
Document History:

Release Dates: 05/2012, 11/2012, 06/2013, 11/2013, 7/2016, 2/5/18, 9/21/20, 9/2/2022, 3/15/2023	**Retire Date:**
Sponsored by: **Stroke Committee**	**Replaces Policy:**

Date Reviewed	Reviewed By:	Revisions Made?	Revision Description
8/30/23	Stroke Committee	Yes	Minor revision of specifics in section 2, 3, 4, and 6. Alteplase for Tenecteplase shortage in section 5.
3/4/24	P&T	No	
5/17/2024	PAC	No	
5/9/2024	MEC	No	

Attachment 1

Physician Guideline for Emergent Life-Threatening Reversal of Bleeds Induced by IV Thrombolytics



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RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 689	Page 1 of 10
Title: Code Stroke	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 This policy applies to the Moreno Valley campus of the Riverside University Health System – Medical Center (RUHS – Medical Center). Arlington campus staff shall call 9-1-1 in case of stroke related emergency.

1.2 To provide multidisciplinary guidelines for the recognition and activation of a Code Stroke.

1.3 To identify the roles and responsibilities of the Code Stroke Team.

2. DEFINITIONS

2.1 **IV Thrombolytic:** defined as “clot buster” medication used to dissolve blood clots.

2.2 **Clinical Practice Guidelines:** defined as statements that include recommendations**,** intended to optimize patient care, that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options. For the purposes of this guideline, clinical practice guidelines are pulled from the American Heart/American Stroke Association to guide the care, treatment and services of stroke patients that present to RUHS – Medical Center

2.3 **Code Stroke:** defined as an emergent process for the recognition and treatment of acute stroke within less than 24 hours of ‘last known well time’.

2.4 **Last Known Well Time:** defined as the time in which a patient was last known to be without the signs or symptoms of the current stroke or at his or her prior baseline. Note: Time of *discovery* does not equal last known well time. For example, if a patient was last seen normal at 10 pm, goes to bed, and is found to have new deficits at 6 am the following morning, the last known well time is 10 pm the night before.

2.5 **National Institute of Health Stroke Scale (NIHSS):** defined as a standardized method used by healthcare professionals to measure the level of impairment caused by stroke.

2.6 **NPO**: Abbreviation for Latin *non per os* or *nil per os*, nothing by mouth.

2.7 **Originating site:** defined as the site where a patient is located at the time health care services are provided via a telecommunications system.

2.8 **Primary Medical Team:** defined as the primary admitting team that oversees the provision of care during a patient’s hospitalization.

2.9 **Remote site:** defined as a site where the physician specialist (Neurologist) who provides health care services is located while providing these services via a telecommunications system.

2.10 **Synchronous interaction:** defined as a real-time interaction between a patient and a healthcare provider located at a remote site.

2.11 **Telehealth:** defined as a mode of delivering health care services via information and communication technologies to enable the diagnosis, consultation, treatment, education, care management, and self-management of patient at the originating site by a health care provider at a remote site.

2.12 **Tele-Neurologist:** defined as those specialists identified by the originating site that provide specialty services (Neurology for the purposes of this policy and procedure) via Telehealth. Physicians providing care via telehealth to patients at RUHS Medical Center must have appropriate staff privileges to do so.

2.13 **Workforce Member:** for the purpose of this policy is defined as employees, physicians, volunteers, students, residents, and other persons whose performance of work is conducted at an RUHS facility, whether or not they are paid by RUHS.

3. GUIDELINES

3.1 A Code Stroke will be activated on any patient presenting to RUHS – Medical Center exhibiting any acute neurological changes indicative of stroke with a last known well time of less than 24 hours.

3.2 Patient presenting meeting both code stroke activation criteria and trauma activation criteria should have **both** teams activated to ensure a collaborative discussion regarding potential patient management.

3.3 A Telehealth consultation shall be activated on any patient exhibiting acute neurological changes indicative of stroke with a last known well time of less than 4.5 hours and NO intracranial hemorrhage/mass/lesion is determined via computerized tomography (CT) Scan or magnetic resonance imaging (MRI) when an in-house neurologist is unavailable. A telehealth consult need not be requested if obvious contraindications for IV thrombolytics are identified by the treating provider.

3.4 IV thrombolytics are to be considered for any eligible patient that presents with signs and symptoms of stroke within 4.5 hour of last known well time. If patient meets inclusion criteria for IV thrombolytic therapy, follow the RUHS-Medical Center policy Patient Informed Consent.

3.5 For suspected stroke patients that arrive to the emergency department (ED) via ambulance, the following process is recommended:

a. A pre-hospital Stroke Scale will be completed in the field prior to paramedic base station contact and Emergency Department (ED) arrival whenever possible.

b. Riverside Emergency Medical Services Agency (REMSA) paramedics will contact RUHS – Medical Center base station Mobile Intensive Care Nurse (MICN) whenever possible.

c. The MICN will attempt to gather the following information from the REMSA paramedic.

i. Signs or symptoms of stroke, which may include but are not limited to:

- Sudden numbness or weakness of face, arm, or leg, especially on one side of the body.
- Sudden confusion or trouble speaking or understanding.
- Sudden dimness or loss of vision from one or both eyes.
- Sudden loss of balance, coordination and/or difficulty with ambulation.
- Sudden severe headache with no known cause.

ii. Last known well time.

d. Blood glucose result or request one if not previously done.

e. If the patient exhibits any acute neurological change indicative of a stroke and the last known well time is less than 24 hours, a workforce member is to activate a Code Stroke.

f. Dial 9-1-1 from a hospital phone or handset, inform the operator you want to activate a Code Stroke and provide the operator with the following information as available:

i. Patient location within the ED.
ii. Estimated time of arrival (ETA).
iii. Patient's age,
iv. Patient's gender
v. Current Glasgow Coma Scale (GCS)

g. The operator will notify the following Code Stroke ED team:

i. Neurologist
ii. Registered Nurse (RN) Code Team
iii. Clinical Pharmacist
iv. Computerized tomography (CT) scan technologist
v. Laboratory supervisor
vi. Designated certified nursing assistant
vii. Designated licensed vocational nurse (LVN) or Phlebotomist
viii. House Supervisor
ix. Stroke Coordinator

h. The MICN will:

i. Notify the ED attending physician.
ii. Notify the ED charge nurse.
iii. Notify the ED Bed Control RN.

3.6 For *suspected* stroke patients who arrive to ED via walk-in triage, ED staff will:

a. Ensure the patient is triaged by the ED RN and assessed for signs or symptoms of stroke.

b. Confirm last known well time.

c. Perform a point of care
blood glucose on the patient to rule out hypoglycemia.

d. If the patient is displaying acute signs or symptoms of stroke and the last known well time is less than 24 hours a workforce member is to activate a Code Stroke in the manner identified in 3.5-F.

3.7 If the patient is displaying acute signs or symptoms of stroke and the last known well time is more than 24 hours notify ED provider.

3.8 For In-Patient suspected stroke patients, the following will occur:

a. The primary nurse will assess the patient for acute signs and symptoms of stroke. Signs and symptoms of stroke may include but are not limited to:

i. Sudden numbness or weakness of face, arm, or leg, especially on one side of the body.

ii. Sudden confusion or trouble speaking or understanding.

iii. Sudden dimness or loss of vision from one or both eyes.

iv. Sudden loss of balance, coordination and/or difficulty with ambulation.

v. Sudden severe headache with no known cause.

vi. Confirm last known well time.

vii. Ensure patient blood glucose > 60 mg/dl.

b. If there is any doubt as to whether the patient is displaying signs or symptoms of an acute stroke within the In-patient setting, the nurse shall immediately activate the Rapid Response Team (RRT) by calling 9-1-1 and the responding team will further evaluate the patient.

c. When last known well time less than 24 hours: If an in-patient exhibits acute neurological symptoms indicative of stroke, the last known well time is less than 24 hours and a current blood glucose level is greater than 60 mg/dl, any nurse or a member of the Rapid Response Team shall activate a Code Stroke and immediately notify the primary physician.

d. When last known well time greater than 24 hours: For any patient exhibiting acute neurological changes indicative of stroke and the last known well time is greater than 24 hours, notify the appropriate physician immediately.

e. Notify Primary team.

3.9 To activate an Inpatient Code Stroke**:**

a. Call the emergency hospital operator by dialing 9-1-1 from a hospital phone or handset.

b. Request a Code Stroke notification.

c. Provide patient location.

d. The operator will page the Code Stroke Team to the specified unit.

3.10 Members of the Code Stroke ED Response Team:

a. RN Code Team

b. Primary Care ED RN

c. ED physician

d. Clinical Pharmacist (to remain on standby)

e. Designated certified nursing assistant (as available)

f. Stroke Coordinator (as available)

g. Neurologist (will be activated for potential thrombolytic candidates)

i. Between the hours of 1700-0800 and weekends Neurology is accessed via Telehealth.

B. Contributing members of the Code Stroke ED response Team not reporting to bedside:

i. Radiology

ii. Neurosurgeon (if indicated)

iii. Clinical Laboratory Scientist (CLS)

iv. House supervisor (as available)

v. Neurointerventional Radiology team (as available)

3.11 Members of the Code Stroke In-Patient Response Team:

A. RN Code Team

B. Primary care RN

C. Primary Medical Team

D. Clinical pharmacist (to remain on standby)

E. Designated certified nursing assistant (as available)

F. Stroke Program Coordinator (as available)

G. Neurologist (will be activated for potential thrombolytic candidates)

i. Between the hours of 1700-0800 and weekends Neurology is accessed via Telehealth.

H. Contributing members of the Code Stroke In-patient Response Team not reporting to the bedside:

i. Radiology

ii. Neurosurgeon (if indicated)

iii. Clinical Laboratory Scientist (CLS)

iv. House supervisor (if available)

v. Neurointerventional Radiology team (as available) (what if it's the NP?)

3.12 Responsibilities of the RN Code Team:

a. Assist with confirmation of last known well time.

b. Perform a comprehensive assessment, including NIHSS.

c. Ensure attempts are made to follow the recommended guidelines for turnaround times as outlined in Attachment 1.

d. Implement appropriate Stroke Orders.

i. Note: The physician will evaluate the patient. If upon exam, the physician determines that a Code Stroke is not appropriate, the physician may request a Code Stroke cancellation.

e. Notify the provider immediately after completion of CT scan and patient return to the appropriate unit.
   i. ED physician (Code Stroke ED)
   ii. Primary Medical Team (Code Stroke In-Patient)

f. If Telehealth is to be utilized, the following will occur:
   i. Set-up conference equipment at the patient's bedside.
   ii. Assist with synchronous interaction between the patient and the Tele- Neurologist as needed.
   iii. Ensure completed labs and radiology reports are available for physician review, however, do not delay encounter if labs or radiology reports are not available.

g. If the patient is a candidate for IV thrombolytic therapy, the following is recommended:
   i. Ensure a physician has reviewed any potential risks, consequences, benefits, and alternatives with patient and/or legal representative regarding the use of thrombolytics prior to administration.
   ii. Administer IV thrombolytics as ordered. Refer to Nursing Policy Medication: IV Thrombolytic Therapy for use in Acute Ischemic Stroke.
   iii. Anticipate admission to ICU for at least 24 hours for patients treated with thrombolytics if not transferred.
   iv. Provide patient and family education.

3.13 **Assist with the emergent tertiary transfer process if available and applicable.** Responsibilities of the Responding Physician:

a. Respond for medical screening exam from Code Stroke activation.

b. For Code Stroke activation that is initiated prior to patient arrival by the MICN, respond for medically screening on arrival. ***Note***: Upon evaluation, if a Code Stroke is determined NOT appropriate, notify the primary RN and request a Code Stroke cancellation. Provide the appropriate orders for the continuation of care.

c. Ensure initiation of Stroke Orders.

d. Computer tomography angiogram (CTA) of the head and neck should be considered for patients that present with NIHSS scores greater than 6 and/or cortical signs: isolated aphasia, gaze deviation and hemi-neglect.

e. Communicate with RUHS neurologist/telehealth neurologist if appropriate for 18 years and older. Consult Loma Linda University Medical Center neuorologist/telehealth neurologist for pediatric code stroke patients.

f. When neurological consultation/ Telehealth is utilized, the following is recommended:

i. Confer with the Tele-Neurologist regarding patient's eligibility for a Telehealth consultation. Note: If it is determined not to be a suitable case the interaction will be complete.

ii. Upon completion of neurology consultation, the treating provider and neurologists shall review inclusion and exclusion criteria and discuss patient eligibility for IV thrombolytic therapy.

g. If patient meets inclusion criteria for IV thrombolytic therapy, ensure the potential risks, consequences, benefits and alternatives of thrombolytic therapy are reviewed with the patient and/or legal representative prior to administration as able. (Written informed consent is not a prerequisite for IV thrombolytic therapy).

h. Implement IV thrombolytic Adult Use Acute Ischemic Stroke Physician Orders as appropriate.

i. Orders may be written by an attending physician, or a resident working under the direction of an attending physician.

i. Document reason if an IV thrombolytic is not ordered in the medical record.

j. Document reason if an IV thrombolytic administration or emergent tertiary transfer is delayed.

k. With limited improvement s/p IV thrombolytic infusion or NIHSS > 6 and/or cortical signs: isolated aphasia, gaze deviation or hemi-neglect with confirmed/suspected large vessel occlusions, patients should be considered for neurological intervention.

i. Ensure stat consult with Neurointerventional Radiology (NIR) or tertiary center for patients exhibiting stroke symptoms with potential large vessel occlusions or critical stenosis.

ii. Ensure stat consult with NIR or tertiary center for patients exhibiting stroke symptoms with cerebral aneurysms or arteriovenous malformations.

3.14 Responsibilities of the Neurologist/Tele-Neurologist for ischemic stroke patients:

a. Respond to stat consult request and speak directly to the treating provider.

i. If Telehealth is to be utilized, the following will occur:

ii. Obtain pertinent patient information from the treating provider to determine eligibility for a Telehealth consultation.

iii. If it is determined not to be a suitable case, verbalize exclusion criteria and the interaction will be complete.

iv. Review diagnostic studies.

v. Conduct synchronous interaction with the assistance of a NIHSS certified RN.

vi. Review any potential risks, consequences, benefits, and alternatives with patient and/or legal representative regarding the use of IV thrombolytics prior to administration. Document this discussion in the medical record.

vii. Speak with the treating provider post patient evaluation and discuss case including review of Inclusion & Exclusion Criteria and patient eligibility for IV thrombolytic.

b. Communicate and document recommendations to the treating provider including but not limited to:
   i. Recommendation to treat with IV thrombolytics if appropriate.
   ii. Reason if IV thrombolytic are not ordered in the medical record.
   iii. Reason if IV thrombolytic administration is delayed.
   iv. Acute care recommendations in the event IV thrombolytics are utilized.
   v. Recommendation for neurological interventional care when appropriate.

c. Provide a completed consultation note to become a part of the patient's permanent medical record. Consult notes are to be entered in the medical record as soon as possible but no later than 24 hours post patient encounter. In the event of remote access/equipment failure, contact the originating site and obtain verbal confirmation of patient presentation and diagnostic studies from treating provider and provide verbal consultation recommendations.

3.15 Responsibilities of the clinical pharmacist:

a. To remain on alert until confirmation of diagnostic studies.
b. Ensure IV thrombolytic medication availability.
c. Assist with reconstitution of IV thrombolytic as needed.
d. Assist with expediting arrival of medications as required to manage patient.

3.16 Responsibilities of the designated nursing assistant or designee:

a. Respond immediately to Code Stroke activation.
b. Assist with monitor implementation and transportation as needed.
c. Assist with Telehealth when indicated.

3.17 Responsibilities of the ED RN or Code Team RN:

a. Respond immediately to the Code Stroke.
b. Obtain blood specimens.
c. Transport blood products directly to the Clinical Laboratory Scientist (CLS).
d. Confirm with CLS to expedite stroke labs.

3.18 Responsibilities of the Stroke Program Coordinator:

a. Function as a strong resource nurse (as available).
b. Notified via e-mail/page of Code Stroke activations for tracking and quality assurance.
c. Review effectiveness of code stroke process and provide feedback to the IDT as needed.

3.19 Responsibilities of Radiology department:

a. Radiology Technician
prepares for emergent non-contrast CT scan of the head. (Clears the table of non-emergent patients)

b. Radiologist to read CT scan or other radiological study deemed necessary and report the findings to the ordering physician immediately after the reading is completed.

c. Goal is as early as possible or ≤ 45 minutes from patient arrival to non-contrast CT scan report to be provided to the treating physician and documented

d. Goal is as early as possible or ≤ 60 minutes from patient arrival to CTA head and neck report to be provided to the treating physician and documented if ordered.

3.20 Responsibilities of Neurosurgeon for hemorrhagic stroke patients:

a. Consult if requested for intracranial hemorrhage, suspected aneurysm, AVM, tumor bleed, or posterior fossa bleed.

3.21 Responsibilities of the House Supervisor:

a. Acts as a facilitator and resource person as needed.

4. ATTACHMENTS

4.1 Recommended Code Stroke Turnaround Times

5. RELATED POLICIES

5.1 HW 677 Medication: IV Thrombolytics for use in Acute Ischemic Stroke

5.2 HW 602 Patient Informed Consent

5.3 NURS SP 400 Rapid Response Team RRT Standardized Procedures

5.4 HW 695 Stroke Program Scope and Services

6. REFERENCES

6.1 Burgos, A.M., Saver, J.L, (2019). Evidence that Tenecteplase Is Non inferior to Alteplase for Acute Ischemic Stroke: Meta-Analysis of 5 Randomized Trials. *Stroke. 2019; 50: 2156-2162.*

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Date Reviewed	**Reviewed By:**	**Revisions Made Y/N**	**Revision Description**
8/30/23	Stroke Committee	Yes	Minor revisions of roles, removal of duplicates within the Stroke Scope of Services policy, and removing time specifics into an attachment. Revised several sections within 3.0, removed the trauma attachment and replaced with turnaround time attachment. References updated.
5/6/2024	P&T	No	
11/16/2023	P&P	No	
5/17/2024	PAC	No	
5/9/2024	MEC	No	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 695	Page 1 of 4
Title: Stroke Program Scope of Service	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. DEFINITIONS

1.1 National Institute of Health Stroke Scale (NIHSS): defined as a standardized method used by healthcare professionals to measure the level of impairment caused by stroke.

1.2 Telehealth: defined as a mode of delivering health care services via information and communication technologies to facilitate the diagnosis, consultation, treatment, education, care management, and self-management of a patient's health care while the patient is at the originating site and the health care provider is at a distant site.

1.3 The Core Stroke Team is defined as the Stroke Program Medical Director and the Stroke Coordinator.

2. PURPOSE

2.1 Riverside University Health System-Medical Center's (RUHS) Stroke Program is established to ensure excellent stroke care for patients with neurological deficits secondary to cerebrovascular disease, including but not limited to thrombosis, embolism, or hemorrhage through early recognition, following evidence-based interventions while maintaining a safe, patient centered environment.

3. GUIDELINES

3.1 Location, hours of service: 24 hours per day, 7 days per week.

a. Stroke Program services will respond to the Emergency Department (ED) and all in-patient units.

b. Stroke Program services will be provided by the Stroke Team.

3.2 Scope of services provided:

a. The Stroke Team serves three critical functions:

i. Facilitate effective interaction and collaboration among agencies, services, and people involved in providing prevention and the timely identification, transport, treatment, and rehabilitation of individual stroke patients.

ii. Utilization of a standardized approach to stroke care.

iii. Use of established performance measures to evaluate effectiveness and to revise, as needed, for improvement.

3.3 The Stroke Team provides patients and providers with best practice recommendations to promote effective stroke prevention, treatment, and rehabilitation.

a. Ensures that decisions about protocols and patient care are individualized and are in the patients' best interest.

b. Identifies and addresses potential obstacles to successful implementation.

c. Provides the appropriate resources and delivers primary stroke care, in accordance with best practice guidelines.

d. Works under the guidance of a Stroke Medical Director, Stroke Coordinator, Stroke Committee, written care protocols, pre-printed stroke physician orders and in collaboration with Emergency Medical System (EMS), neuroimaging, telehealth, radiology and laboratory services.

3.4 The stroke team consists of the following individuals or their designee:

a. Emergency Department:

i. ED physician

ii. NIHSS certified RN

iii. Clinical pharmacist (stand by)

iv. Designated certified nursing assistant (as needed)

v. Neurologist or telehealth (when indicated)

vi. Stroke coordinator (as available)

b. Inpatient

i. Primary medical team provider

ii. NIHSS certified RN

iii. Clinical pharmacist (stand by)

iv. Certified nursing assistant (as needed)

v. Neurologist or telehealth (when indicated)

vi. Stroke coordinator (as available)

3.5 The Stroke Committee is responsible for:

a. Defining criteria for the evaluation of process and outcome measures, quality management, performance monitoring, problem identification, analysis, and reporting. Criteria are defined by consensus, institutional guidelines, and are based on evidence-based practice parameters.

3.6 The Stroke Committee is a multidisciplinary team and includes the following:

a. Neurology Chair or representative.

b. Stroke Medical Director or representative.

c. Chief Nursing Officer or representative.

d. Department of Emergency Medicine or representative.

e. Department of Neurosurgery or representative.

f. Department of Radiology Chair or representative.

g. Stroke Program Coordinator (Stroke Committee Co-Chair).

h. Department of Rehabilitation Services Manager or representative.

i. Director of Pharmacy or representative.

j. Department of Patient and Family Services Manager or representative when indicated.

k. Laboratory Manager or representative.

l. Quality Management representative.

m. Patient Safety Officer or representative when indicated.

n. Pre-hospital Liaison Nurse or representative

o. Food & Nutrition Services Manager or representative when indicated.

3.7 Meetings are conducted a minimum of quarterly per year or as needed.

3.8 Education Requirements:

a. The following health care providers are required to maintain Basic Life Support (BLS) certification:

i. Code Team RNs

ii. Primary care RN

iii. Clinical Pharmacist

iv. Designated Certified Nursing Assistant (as available)

v. Stroke Coordinator

b. All patient care providers are required to maintain a current California license.

c. The following health care providers are required to maintain Advanced Certified Life Support (ACLS) certification:

i. Adult critical care RNs

ii. Progressive care RNs

iii. Clinical Pharmacist

iv. Emergency department RNs

v. Stroke Coordinator

vi. Code Team RNs

d. The following health care providers are required to maintain NIHSS certification: (Note: NIHSS certifications are valid two years from the time the certification course was completed

i. Code Team RNs

ii. Adult critical care RNs

iii. Progressive care RNs

iv. Emergency department RNs

v. Medical/Surgical RNs on the designated stroke unit shall obtain their certification upon hire or prior to the end of orientation.

4. EDUCATION

4.1 The Core Stroke Team and the Stroke Committee will approve the written stroke education plan on an annual basis.

4.2 Community:

a. Collaboration with local agencies and/or communities to increase knowledge of stroke risks factors and symptoms with activities related to stroke for a minimum of twice per year.

5. QUALITY IMPROVEMENT:

5.1 The effectiveness of the Stroke Program is evaluated through data collection, data monitoring, and performance improvement as follows:

5.2 Performance improvement goal is to streamline and improve stroke procedures, coordinate stroke care, meet and exceed stroke performance standards and continually monitor and measure standards for improvement.

a. Monitor performance of the Stroke Program through case review, concurrent and retrospective chart review, and stroke achievement measures.

b. Identify and analyze problems and or issues.

c. Plan and implement resolutions to identified problems and or issues as they arise including corrective action as indicated.

d. Evaluate effectiveness of corrective actions.

5.3 Data collection

a. A stroke registry (AHA Get With the Guidelines) will be used for data collection, analysis, and benchmarking.

b. Charts will be audited in compliance with The Joint Commission recommendations.

5.4 Reporting data

a. Stroke data will be reported to the Stroke Committee, the Performance Improvement and Patient Safety Committee (PIPSC) and the Medical Executive Committee.

b. The Stroke Program will follow requirements from Riverside Emergency Medical Services Agency (REMSA) Stroke Center policies.

Document History:

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Sponsored by: **Stroke Committee**	**Replaces Policy:** **# 100.02**

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RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 699	Page 1 of 4
Title: Latex Sensitivity: Patient Care	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☒ **Procedure** ☐ **Guideline**

1. DEFINITIONS:

1.1 Latex sensitive- individuals who exhibit some sort of reaction to exposure to latex, the milky sap of the rubber tree (Hevea brasiliensis,) which is found in many consumer and medical products. Individuals with sensitivity may exhibit mild symptoms, such as rash. However, sensitivity can rapidly progress to severe allergy. Therefore, latex sensitive patients should be considered to be latex allergic.

1.2 Latex allergy- Individuals who have a demonstrated allergy to latex exposure, the milky sap of the rubber tree which is found in many consumer and medical products. Allergies can range from contact dermatitis to anaphylaxis.

1.3 SBAR-Situation/Background/Assessment/Recommendation format for report and updates between clinicians.

1.4 Type IV cell mediated hypersensitivity- Occurs over time following exposures to latex over a sensitization period. Symptoms, such as dermatitis, may occur hours after exposure and are not life threatening, though sensitivity can increase at any time to hypersensitivity.

1.5 Type I IgE-mediated hypersensitivity- Exposure to latex can result in symptoms within seconds to minutes and may include facial swelling, rhinitis, generalized urticaria, respiratory distress and anaphylactic shock can occur. Individuals with Type I can react to balloons and aerosolled latex without direct contact of the item.

1.6 Latex-free (L-F) supplies- Medical or personal supplies that contain no latex.

1.7 “Not made with natural rubber latex”- statement recommended by the FDA to be placed on labeling of products and packaging that are not made with natural rubber latex, replacing the term “latex-free”. This recommendation was effective December, 2014.

1.8 High risk latex allergy populations- Individuals at higher risk for developing an allergy to latex include people with spina bifida and those with genitourinary malformations, individuals having multiple operations and procedures, health care workers, rubber industry workers, those with atopy, and those with allergies to fruit such as banana, avocado, kiwi, chestnuts, papaya, passionfruit, peach, tomato, raw potato, strawberries and sometimes peanuts (this food items have a similar protein allergens to latex).

1.9 ABC allergies - allergies to apple, banana or chestnuts, which may indicate a latex sensitivity that is unknown to the patient.

1.10 Latex-Fruit Syndrome - A syndrome in which individuals allergic to certain fruits (see 1.9 above) are also allergic to latex. 50-70 % of latex-allergic people have IgE antibodies cross-reactive to the antigens coming from some vegetable foods.

1.11 Atopy or Atopic Syndrome is characterized by individuals who have a tendency to be hyper allergic or allergic to many substances.

2. POLICY

2.1 Riverside University Health System-Medical Center (RUHS-Medical Center) recognizes the special safety needs of the latex allergic patient and utilizes multiple processes to minimize risk of exposure, including reducing the number of latex products within the facility.

2.2 All patients shall be screened for allergies, including latex allergy, prior to or upon admission.

2.3 All patients identified as having latex sensitivity or allergy shall be provided with latex-free supplies and protected from contact with latex supplies.

2.4 All nursing care patient areas (i.e., emergency department, inpatient nursing units and perioperative areas) shall have a process for maintaining latex-free supplies and identifying latex sensitive or allergic patients.

2.5 Communication of latex allergy to all disciplines involved in the care of the patient shall be considered a top safety priority and be part of the SBAR communication.

3. PROCEDURES:

3.1 Screen patient for allergies.

a. Apply red allergy band to patient for any allergies, including latex sensitivity or allergy.

b. Document allergy in patient medical record, including Medication Records, Admission Assessments, Kardexes, etc.

c. Note that patients with fruit allergies may have an unknown latex allergy (Latex-Fruit Syndrome). Notify the physician of potential for latex sensitivity.

3.2 Place patient in a latex free environment.

a. Place the patient in a private room or area when possible.

b. Ensure that all possible latex items are removed from the room. These items may include sterile gloves.

c. When possible, post a “No Latex” sign on patient rooms, gurneys or walls.

d. The Emergency Department, perioperative areas and inpatient areas shall have readily available latex-free supplies in designated locations.

- Some areas may have a mobile cart or box that is placed near the patient locations once a latex allergy is identified.

e. Though RUHS-Medical Center has minimized the amount of latex containing products, the nurse shall be aware of what products contain latex that are used in their assigned area.

- Packaging of products contains latex free information. The packaging may say “latex-free”, “not made with natural rubber latex” or have the symbol of a circle with a line through it over the word “latex”.
- Materials Management can be a further resource if there are questions regarding packaging or latex-free alternative products.
- Some, but not all, latex containing products in RUHS-Medical Center may include certain sterile gloves, urinary catheters, stethoscopes and the balloons used for endoscopies. Use special precaution in evaluating these products before introduction to the patient environment.

f. Staff shall avoid latex exposure as much as possible when caring for both latex allergy and non-latex allergy patients concurrently, as latex contaminants can be carried on clothing and skin.

- If latex is handled by the healthcare worker, hand washing thoroughly with soap and water prior to enter the room/area of the latex allergic patient is required.
- Personal stethoscopes may contain latex and should not be used unless confirmed latex-free. Placing on clothing and removing prior to entering the patient room is not sufficient, as clothing may be contaminated. Disposable Latex-Free stethoscopes are available.

3.3 Only mylar balloons are allowed in the vicinity of the patient. Latex balloons can cause severe reactions without touching the patient.

3.4 Communication regarding latex allergy between healthcare workers, including nurses, physicians, diagnostic department professionals and others is critical. Include Latex Allergy in SBAR report prior to sending the patient to any test or procedure and in handing off the patient.

a. Report should include that latex should be removed from exam and procedure rooms prior to the patient arriving.

b. In some cases, gurneys and exam tables should be wiped down additionally if there had been contact with latex, i.e. a box of latex containing gloves had been on gurney or bedside table.

c. Even if a telephone report has occurred, notification of latex allergy should be given verbally, as an additional precaution, to any health care worker picking the patient up for transport to another department.

d. The surgical department should be notified of the latex allergy when surgery or procedures are being scheduled.

- Perioperative areas may schedule the patient as the first case of the day to avoid any air allergens.
- The perioperative areas will maintain their own latex-free supplies, including sterile gloves.

3.5 Patients should be educated regarding their latex allergy.

a. Education should focus on avoiding latex products and intervention when exposure occurs.

b. The patient should be encouraged to question any health care worker about products being brought into the patient care area or about any product.

4. REFERENCES

4.1 Care of the Type 1 Latex Allergy Patient, Australian Nursing Journal, April, 2012, Volume 19, Number 9. By Jeanette Wade

4.2 Latex Allergy: An overview, CINAHL Quick Lessons, by Sharon Richman, April 26, 2013

4.3 Latex-Fruit Syndrome and Class 2 Food Allergy, dmd.nihs.go.jp/latex/cross-e.html, August 2013

4.4 www.fda.gov/.../deviceregulationandguidance/guidancedocuments/ucm342872, Dec 2, 2014

4.5 Connor, R. (2017). Guidelines for Perioperative Practice. Denver, CO: AORN, Inc

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Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
5/2024	Nursing Admin	N	

RIVERSIDE UNIVERSITY HEALTH SYSTEM - MEDICAL CENTER

Housewide

	Document No: 851	Page 1 of 16
Title: Handling of Hazardous Medications	**Effective Date:** 5/24/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☒ **Procedure** ☐ **Guideline**

1. SCOPE

1.1 Applies to all workforce members who may handle, administer, and come into contact with hazardous medications.

1.2 Describes workforce member safe handling of medication and supplies used in the storage, preparation, dispensing, distribution, administration, and cleaning of areas that are exposed to or contaminated with hazardous medications.

2. DEFINITIONS

2.1 *Contaminated*: Material that has been in direct contact with a hazardous drug. Urine, fecal matter, vomit, blood, or body fluids from patients receiving a hazardous drug are considered contaminated for a minimum of 48 hours after administration. Containers that have held contaminated urine, fecal matter, vomit, blood, or other body fluids are considered contaminated until emptied.

2.2 *Exposure:* Physical contact with a hazardous drug, such as during preparation or administration or unprotected contact with a hazardous drug.

2.3 *Hazardous Drug Waste:* An unused or partially used hazardous drug that has not been used for its intended purpose or material that has been contaminated with a hazardous drug.

2.4 *Manipulation/manipulated:* Repackaging of a medication from the original dose form supplied by the manufacturer for patient administration to another dose form.

2.5 *Closed-system drug transfer device (CSTD)*): A drug transfer device that mechanically prohibits the transfer of environmental contaminants into the system and the escape of HD or vapor concentrations outside the system.

2.6 *Chemotherapy glove*: A medical glove that meets the ASTM Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs (D6978) of its successor.

2.7 *Protective gown:* Gowns must be disposable and shown to resist permeability by HDs. Gowns must close in the back (i.e., no open front), be long sleeved, and have closed cuffs that are elastic or knit. Gowns must not have seams or closures that could allow HDs to pass through.

2.8 *Respiratory protectio*n: a fit-tested NIOSH-certified N95 or more protective respirator is sufficient to protect against airborne particles.

2.9 *Hazardous Drugs (HDs)*: Hazardous drugs include those used for cancer chemotherapy, antiviral drugs, hormones, some bioengineered drugs, and other miscellaneous drugs. Drugs considered hazardous include those that exhibit one or more of the following six characteristics in humans or animals:

a. Carcinogenicity

b. Teratogenicity or other developmental toxicity

c. Reproductive toxicity

d. Organ toxicity at low doses

e. Genotoxicity

f. Structure and toxicity profiles of new drugs that mimic existing drugs determined hazardous by the above criteria

2.10 *NIOSH approach involves three groups of drugs*:

a. Tier 1: Antineoplastic hazardous drugs. Many of these drugs may also pose a reproductive risk for susceptible populations (Attachment A and B).

b. Tier 2: Non-antineoplastic hazardous drugs that meet one or more of the NIOSH criteria for a hazardous drug. Some of these drugs may also pose a reproductive risk for susceptible populations (Attachment C).

c. Tier 3: Reproductive risk, hazardous drugs that primarily pose a reproductive risk to men and women who are actively trying to conceive and women who are pregnant or breast feeding, because some of these drugs may be present in breast milk (Attachment D).

2.11 *Personal Protective Equipment (PPE)*: items such as gloves, gowns, respirators, goggles, face shields, and others that protect individual workers from hazardous physical or chemical exposures.

2.12 Chemotherapy Nurse: A RN who has completed 1) Oncology Nursing Society (ONS) provider course; 2) completed training/certification; and 3) education to administer chemotherapy, antineoplastic hazardous drugs.

3. PROCEDURES

3.1 This procedure describes the general aspects of handling hazardous drugs (HDs): receipt, storage, labeling, transport and administration that are not directly associated with compounding activities.

a. Preparation and compounding are addressed in separate pharmacy procedure.

b. HD and chemotherapy spill and waste handling are addressed in separate procedure.

3.2 HD will be handled using methods that protect employees, the surrounding environment and others who may encounter them in the healthcare environment.

3.3 Potential Routes of Exposure Based on Activity- Table 1

Activity	**Potential Route of Exposure**
Dispensing	Counting tablets and capsules from bulk containers
Compounding	• Crushing tablets or opening capsules • Pouring oral or topical liquids from one container to another • Weighing or mixing components • Constituting or reconstituting powdered or lyophilized HDs • Withdrawing or diluting injectable HDs from parenteral containers • Expelling air or HDs from syringes • Contacting HD residue present on PPE or other garments • Deactivating, decontaminating, cleaning, and disinfecting areas contaminated with or suspected to be contaminated with HDs • Maintenance activities for potentially contaminated equipment and devices
Administration	• Generating aerosols during administration of HDs by various routes (e.g. injection, irrigation, oral, inhalation, or topical application) • Performing certain specialized procedures (e.g., intraoperative intraperitoneal injection or bladder instillation) • Priming an IV administration set
Patient-care activities	• Handling body fluids (e.g., urine, feces, sweat, or vomit) or body-fluid-contaminated clothing, dressings, linens, and other materials
Spills	• Spill generation, management, and disposal
Receipt	• Contacting with HD residues present on drug container, individual dosage units, outer containers, work surfaces, or floors
Transport	• Moving HDs within a healthcare setting

3.4 **General Handling of HDs**

a. Appropriate PPE must be worn when handling HDs including during: receipt, storage, transport, compounding, administration, deactivation, decontamination, cleaning, disinfecting and spill control.

b. Chemotherapy gloves are always worn for handling hazardous medications including non-antineoplastic (Tier 2) and for reproductive risk only HDs (Tier 3). Two pairs of Chemotherapy gloves are required for administering antineoplastic HDs (Tier 1).

c. Gowns are required when administering antineoplastic HDs except for intact tablet or capsule. Gowns worn in HD handling areas must not be worn to other

areas in order avoid spreading HD contamination and exposing other healthcare workers.

d. When there is a risk of respiratory exposure to HDs, including 1) spills larger than what can be contained with a spill kit 2) deactivating, decontaminating, cleaning of HDs hood 3) suspected airborne exposure to powders or vapors, an appropriate full-face piece chemical cartridge-type respirator should be worn by employee handling HDs such as EVS, pharmacy technician or nursing staff who help with cleaning HD spills.

e. Antineoplastic HDs shall be always handled with caution using appropriate chemotherapy gloves during receiving, distribution, stocking, inventorying, preparation for administration and disposal.

f. Hands should be washed before and after the use of gloves.

g. HD vials are considered contaminated with HD, any personnel handling these vials will wear chemotherapy gloves.

h. Double gloves and protective gown are required when handling bodily fluids.

3.5 **Receipt of HDs**

a. Antineoplastic HDs (Tier 1) will be unpacked in an area that is neutral/normal or negative pressure relative to the surrounding areas.

b. Antineoplastic HDs will not be unpacked from their shipping containers in sterile compounding areas or in positive pressure areas.

c. Pharmacy personnel responsible for Antineoplastic HD inventory receiving functions will receive training on hazardous drug handling and spill procedures.

d. Should a package of HD be received which is suspected of being damaged, the following will occur:

- The HDs in question will be received and opened in an isolated area.
- In addition to the double chemotherapy gloves, additional PPE will be worn which will include: a coated chemotherapy gown, disposable utility gloves, eye shield and an OSHA-certified N-95 fit tested respirator.
- If a container is broken, the procedure on HD Spills will be followed.

3.6 **Storage of HDs**

a. HDs are stored in a manner that prevents spillage or breakage if the container falls. HDs are not stored on the floor.

b. Refrigerated antineoplastic HDs are stored in a dedicated refrigerator, separate from non-hazardous medications, in bins that will contain leakage, in a negative pressure area with at least 12 air changes per hour (ACPH).

c. Non-antineoplastic (Tier 2), reproductive risk only (Tier 3), and final dosage forms of antineoplastic HDs may be stored with other inventory.

d. Antineoplastic HDs requiring manipulation other than counting final dosage forms are stored separately from non-HDs in a manner that prevents contamination and

personnel exposure. These HDs must be stored in a negative-pressure room with at least 12 air changes per hour (ACPH).

e. Sterile and non-sterile HDs may be stored together.

f. Specific labels that have been adopted by the organization to be used to designate HDs will be affixed to shelves, or drawers or bins as appropriate where HDs are stored.

3.7 Transport of HDs

a. Compounded HDs in final containers for patient administration will be placed inside of sealed transport bags that are labeled prominently using labels and identifying stickers.

b. Antineoplastic drugs are prepared for transport by individually wrapping each dose in an impervious, sealed plastic bag (1 dose per bag) to prevent contamination in the event of leakage. If the bottle is glass, it must be wrapped in shock absorbent material before being placed in the bag.

c. Pneumatic tubes must not be used to transport any liquid HDs or antineoplastic HDs (Tier 1).

d. Personnel involved in the transport of HDs will be trained in transport and spill procedures.

e. Chemo Spill Kit will be kept in main pharmacy, infusion center and nursing units where chemotherapy is given.

f. HDs that are shipped outside of the facility will be shipped in accordance with local and state Department of Transportation regulations.

3.8 Labeling

a. All packages, containers, prepared syringes, intravenous (IV) bottles, or other devices containing antineoplastic drugs (Tier 1) shall be marked with “CHEMOTHERAPY” sticker to alert personnel that the contents involve antineoplastic drug. Chemotherapy Drug Delivery bags (if applicable) may also be used for transportation of antineoplastic drugs.

b. All packages, containers, prepared syringes, intravenous (IV) bottles, or other devices containing hazardous drugs (Tier 2) shall be marked with “HAZARDOUS DRUG” stickers in a manner sufficient to alert personnel that the contents involve a hazardous drug. Delivery bags are also labeled with “HAZARDOUS DRUG” sticker for hazardous drugs.

c. All packages, containers, prepared syringes, intravenous (IV) bottles, or other devices containing hazardous drugs-reproductive risk (Tier 3) shall be marked with “REPRODUCTIVE RISK” stickers in a manner sufficient to alert personnel that the contents involve a hazardous reproductive risk drugs. Delivery bags are also labeled with “REPRODUCTIVE RISK” sticker for hazardous reproductive risk drugs.

4. ADMINISTRATION AREAS

4.1 Engineering Controls

a. Closed-system transfer devices must be used for administration of antineoplastic HDs. Needleless system is used to reduce the risk of needle sticks.

b. Infusion and Intravenous sets should be attached and primed with base solution in the pharmacy department under the proper engineering control for antineoplastic HDs.

4.2 **Worker's Apparel and Protection (See table 3)**

a. Appropriate PPE must be worn when administering HDs. After use, PPE must be removed and disposed of in an approved HD waste container at the site of drug administration. Equipment (such as tubing and needles) and packaging materials must be disposed in HD waste containers after administration. Apparel used when hazardous drugs in any category are administered may not be worn out of the administration area.

b. When handling the body wastes and fluids of patients receiving antineoplastic drugs, employees should wear appropriate PPE while caring for the patient for 48 hours after the drug was administered

c. For splash risk, wear face-shield or protective goggles. If used, should be disposable. Do not attempt to clean or re-use.

d. Employees must wash their hands thoroughly with soap and water before and after administering hazardous drugs and whenever gloves are changed.

4.3 **Respiratory Therapy**

The respiratory therapy department should maintain a standard operating procedure for each specific hazardous drug administered as an aerosol. The treatment area should be posted during administration, and nonessential personnel should not be admitted.

4.4 **Environmental Services**

a. Environmental services staff must wear appropriate protective gloves when working in any area where HDs are compounded or administered. They must also be trained in spill response and clean-up procedures.

b. Wear two pairs of chemotherapy gloves and impermeable disposable gown if handling linens, feces, or urine from patients who have received antineoplastic HDs within the last 48 hours.

c. N95 masks are required for reproductive category employees.

d. Further efforts to limit employee exposure are defined by specific policies set by environmental services department

4.5 **Patient Signage**

a. Nursing staff member will post a sign on the door to the room of every inpatient who has received antineoplastic drugs within the past 3 days (including those from prior admissions or those transferred from other institutions).

b. The sign will note that medication exposure precautions exist and specify the date when the signage can be removed (a minimum of 48 hours after the completion of the last administration of the antineoplastic drug).

4.6 **Patient Transport**

Patients receiving antineoplastic drugs are considered a moderate risk for transport. If patient needs to be transported, must be accompanied by chemotherapy nurse.

4.7 **Laundry**

It is standard procedure to treat all laundry as if it is contaminated with hazardous material. Employees must wear latex or nitrile gloves when handling laundry.

4.8 **Investigational Drugs**

A large number of investigational hazardous drugs are under clinical study in health care facilities. Personnel not directly involved in the investigation should not administer these drugs unless they have received adequate instruction on safe handling procedures.

4.9 **Contaminations and Spills –** Refer to Housewide policy 865 "Hazardous Drug Spill Deactivation and Waste Management"

5. DOCUMENTATION AND TRAINING

5.1 All personnel working with HDs must receive training on the possible health risks associated with exposure to these agents and be instructed on their safe handling and disposal. Employees must have access to this plan.

5.2 Employees who handle HDs or HDs waste should receive initial hazard communication training during new employee orientation. They must also receive additional specific training from their department on the drugs they will be exposed to. Before working with hazardous drugs, they must demonstrate their understanding of and competence in safe and proper drug handling procedures to their supervisor. The department must verify staff competency annually

5.3 Training must include all aspects of the work involving HDs; the potential exposure involved and the steps necessary to prevent exposure, including the availability and location of Safety Data Sheets; the physical and health risks of the hazardous drugs used in the department; and the content of local policies and of other department policies dealing with hazardous drugs.

6. EXPOSURE REPORTING AND MEDICAL SURVEILLANCE

6.1 Personnel who have contact with a hazardous substance should notify others in the vicinity of the exposure and proceed with decontamination.

6.2 Personnel safety is of the utmost importance. Intervention should begin as soon as possible if not immediately. Nearby personnel may assist, and the Supervisor or designee on duty should be notified about the incident

6.3 Supervisor or designee to follow hospital and/or County protocol for personnel safety events

6.4 Possible exposures, examples:

a. Eye exposure: the eyes should be immediately flushed with water or an approved saline eye wash for 15 minutes

b. Skin exposure, the affected area should be immediately washed with soap and water for 15 minutes

c. Minor cuts caused by contaminated broken glass or other sharp objects: the affected area should be immediately washed with soap and water for 15 minutes

d. Inadvertent injection with the needle remaining in the injection site, the plunger should be withdrawn to remove as much of the drug as possible. If the needle has already been withdrawn, a new, sterile 1-mL syringe with needle should be inserted into the site to aspirate as much drug as possible

6.5 For possible exposures, the employee should then be sent for evaluation in the Emergency Department

6.6 Medical surveillance programs are designed and implemented by Occupational Health. Surveillance programs involve assessment and documentation of symptom complaints, and physical findings. To determine whether there is a deviation from the expected norms, laboratory analysis, such as complete blood count or urinalysis may be done. Occupational Health will develop a follow-up plan for employees who have shown health changes suggesting toxicity or who have experienced an acute exposure.

7. RESPONSIBILITIES AND ACTIONS: Table 2

Responsible Entity	Action
Department of Pharmacy	• Provides oversight for HDs used at hospital
Departments	• Provides appropriate education and training for all personnel working with or having contact with HDs and all personnel who may be exposed to such drugs during the normal course of their work. • Ensures that training occurs before any employee begins working with these drugs. • Provides the required personal protective equipment. • Verifies staff competency annually. • Verifies periodically that employees are handling hazardous drugs in accordance with local policy. • Ensures that employees know about and have access to this plan at all times.
Employee	• Demonstrates competence in safe and proper handling procedures before working with HDs. • Administers hazardous drugs in accordance with this and other applicable policies. • Stores, transports, and otherwise handles hazardous drugs in accordance with local policy. • Cleans up spills properly. • Disposes of hazardous drugs and hazardous drug waste properly.
Employee health services	• Manages the medical surveillance program.
Safety	• Provides assistance to departments implementing local policy.

8. WORKER'S APPAREL AND PERSONAL PROTECTION:

Table 3- Worker's Apparel and Personal Protection

Tier 1- Antineoplastic HDs	Formulation / All Employees	Chemo gloves	Protective gown	Eye Protection	Respiratory protection (N95/ Respirator)	Chemo Nurse needed
	Intact tablet or capsule	single	no	no	no	no
	Cut Tablet	double	yes	no	no	no
	Oral liquid drug	double	yes	yes	no	no
	Topical drug	double	yes	**yes	yes	no
	Subcut, IM, IV, irrigation, inhalation.	double	yes	**yes	***yes	*Yes
Tier 2- Non-Antineoplastic HDs (all dosage formulations)	Employee	single	no	no	no	n/a
	Reproductive Employee	double	yes	no	***yes	n/a
Tier 3- Reproductive risk HDs (all dosage formulations)	Employee	single	no	no	no	n/a
	Reproductive Employee	double	yes	no	yes	n/a

*No Chemo nurse required for antineoplastic HD with NO manipulation (e.g. pre-filled syringe/kit – Lupron Depot)"

yes for splash risk * yes for aerosols

More PPE can be worn out of precaution, this is minimum required PPE

9. ATTACHMENTS

9.1 Attachment A- Tier 1 Antineoplastic HDs Injectable: IVPB, IVP, IM

9.2 Attachment B- Tier 1 Antineoplastic HDs Oral: Capsule, Tablet

9.3 Attachment C- Tier 2 Non-antineoplastic HDs

9.4 Attachment D- Tier 3 Reproductive risk HDs

9.5 Attachment E- ONS Interim Guidelines during the COVID-19 Pandemic

10. REFERENCES

10.1 HW Policy 865 Hazardous Drug Spill Deactivation and Waste Management

10.2 EVS 099 Waste Management Plan

10.3 Nursing 703.01 Chemotherapy (Tier 1-Antineoplastic HDs) and Biotherapy Administration.

10.4 The National Institute for Occupational Safety and Health. (2016, September).*NIOSH list of antineoplastic and other hazardous drugs in healthcare settings, 2016*. Department of Health and Human Services Publication No. 2016-161 (Supersedes 2014-138). Reviewed April 27, 2023, from https://www.cdc.gov/niosh/docs/2016-161/default.html

10.5 2016 Updated American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards, including Standards for Pediatric Oncology. Journal of Oncology Practice: Vol. 12, Issue 12.

10.6 United States Pharmacopeia (USP). (2019). *USP <800> Hazardous drugs-Handling in healthcare* settings.

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4/22/2024	Nursing Policy and Procedure	No	
05/06/2024	Pharmacy & Therapeutics Committee	Yes	For section 6 – occupational exposure – change the order of 6.4 and 6.5 to list exposure examples first before treatment
5/17/2024	PAC	No	

ATTACHMENTS

Attachment A- Tier 1 Antineoplastic HDs Injectable: IVPB, IVP, IM			
Adotrastuzumab (Kadcyla)	Dacarbazine	Idarubicin (Idamycin PFS)	Pemetrexed (Alimta)
Amsacrine	Dactinomycin (Cosmegen)	Ifosfamide (Ifex)	Pentostatin (Nipent)
Arsenic trioxide (Trisenox)	Daunorubicin	Inotuzumab ozogamicin (Besponsa™)	Pertuzumab (Perjeta)
Azacitidine (Vidaza)	Decitabine (Dacogen)	Irinotecan (Camptosar)	Polatuzumab vedotin (Polivy)
Bacillus Calmette Guerin (BCG)	Degarelix (Firmagon)	Ixabepilone (Ixempra Kit)	Pralatrexate (Folotyn)
Belantamab mafodotin (Blenrep)	Docetaxel (Taxotere)	Larotrectinib (Vitrakvi)	Romidepsin (Istodax)
Belinostat (Beleodaq)	Doxorubicin (Adriamycin, Doxil)	Leuprolide (Lupron; Eligard)	Sacituzumab Govitecan (Trodelvy)
Bendamustine (Bendeka; Treanda)	Enfortumab Vedotin (Padcev)	Loncastuximab tesirine (Zynlonta)	Streptozocin (Zanosar)
Bleomycin	Epirubicin (Ellence)	Lurbinectedin (Zepzelca)	Temozolomide (Temodar)
Bortezomib (Velcade)	Eribulin (Halaven)	Mechlorethamine	Temsirolimus (Torisel)
Brentuximab vedotin (Adcetris)	Etoposide (Toposar)	Melphalan (Alkeran; Evomela,Pepaxto)	Teniposide
Busulfan (Busulfex)	Fam-Trastuzumab Deruxtecan (Enhertu)	Methotrexate (Otrexup; Rasuvo)	Tisotumab Vedotin (Tivdak)
Cabazitaxel (Jevtana)	Floxuridine	Mirvetuximab Soravtansine (Elahere)	Thiotepa (Tepadina)
Carboplatin	Fludarabine	Mitomycin (Mutamycin)	Topotecan (Hycamtin)
Carfilzomib (Kyprolis)	Fluorouracil (Adrucil)	Mitoxantrone	Trabectedin (Yondelis®)
Carmustine (BiCNU; Gliadel Wafer	Fulvestrant (Faslodex)	Moxetumomab pasudotox-tdfk (LUMOXITI)	Trimetrexate (Neutrexin)
Cisplatin	Gemcitabine (Gemzar)	Nelarabine (Arranon)	Triptorelin (Trelstar Mixject; Triptodur)
Cladribine	Gemtuzumab ozogamicin (Mylotarg)	Nilotinib (Tasigna)	Valrubicin (Valstar)
Clofarabine (Clolar)	Goserelin (Zoladex)	Olaratumab (Lartruvo)	Vinblastine

Cyclophosphamide	Histrelin (Supprelin LA; Vantas)	Omacetaxin (Synribo)	Vincristine (Vincasar PFS)
		Paclitaxel	Ziv-aflibercept (Zaltrap)

Attachment B-Tier 1 Antineoplastic HDs Oral: Capsule, Tablet			
Abiraterone (Yonsa; Zytiga)	Dacomitinib (Vizimpro)	Ivosidenib (Tibsovo)	Ponatinib (Iclusig) (TKI)
Afatinib (Gilotrif)	Dasatinib (Sprycel) (TKI)	Ixazomib (Ninlaro)	Procarbazine (Matulane)
Altretamine (Hexalen)	Enzalutamide (Xtandi)	Lapatinib (Tykerb) (TKI)	Regorafenib (Stivarga)(TKI)
Anastrozole (Arimidex)	Encorafenib (Braftovi)	Larotrectinib (Vitrakvi)	Ruxolitinib (Jakafi) (TKI)
Apalutamide (Erleada)	Erlotinib (Tarceva) (TKI)	Lenvatinib (Lenvima) (TKI)	Sonidegib (Odomzo)
Axitinib (Inlyta) (TKI)	Estramustine (Emcyt)	Letrozole (Femara)	Sorafenib (Nexavar) (TKI)
Baricitinib (Olumiant)	Etoposide	Lomustine (Gleostine)	Sunitinib (Sutent) (TKI)
Bexarotene (Targretin)	Everolimus (Afinitor; Afinitor Disperz; Zortress)	Lorlatinib (Lorbrena)	Talazoparib (Talzenna)
Bicalutamide (Casodex)	Exemestane (Aromasin)	Megestrol (Megace)	Tamoxifen (Soltamox)
Binimetinib (Mektovi)	Flutamide	Melphalan (Alkeran)	Temozolomide (Temodar)
Bosutinib (Bosulif) (TKI)	Fostamatinib (Tavalisse)	Mercaptopurine (6-MP; purinethol)	Thioguanine (Tabloid)
Busulfan (Myleran)	Gefitinib (Iressa) (TKI)	Methotrexate (Trexall; Xatmap)	Topotecan (Hycamtin)
Cabozantinib (Cometriq; Cabometyx) (TKI)	Gilteritinib (Xospata)	Mitotane (Lysodren)	Toremifene (Fareston)
Capecitabine (Xeloda)	Glasdegib (Daurismo)	Nilotinib (tasigna) (TKI)	Trametinib (Mekinist)
Ceritinib (Zykadia) (TKI)	Hydroxyurea (Hydrea; Droxia; Siklos)	Olaparib (Lynparza)	Trifluridine/Tipiracil (Lonsurf)
Chlorambucil (Leukeran)	Ibrutinib (Imbruvica) (TKI)	Palbociclib (Ibrance)	Vandetanib (Caprelsa) (TKI)
Crizotinib (Xalkori) (TKI)	Idelalisib (Zydelig)	Panobinostat (Farydak)	Vemurafenib (Zelboraf)
Cyclophospha mide (cytoxan)	Imatinib (Gleevec) (TKI)	Pazopanib (Votrient) (TKI)	Vismodegib (Erivedge)
Dabrafenib (Tafinlar)	Isotretinoin (Absorica; Amnesteem; Claravis; Myorisan; Zenatane)	Pomalidomide (Pomalyst)	Vorinostat (zolinza)

Attachment C- Tier 2 Non-antineoplastic HDs			
Abacavir (Ziagen)	Estrogen/Progesterone combinations	Mipomersen (Kynamro) (SQ)	Propylthiouracil
Alefacept (Amevive) (IV)	Estrogens esterified (Menest)	Mycophenolate mofetil (CellCept)(IV, PO)	Raloxifene (Evista)
Apomorphine (Apokyn) (subq)	Estropipate	Mycophenolic acid (Myfortic)	Rasagiline (Azilect)
Azathioprine (Azasan; Imuran) (PO, IV)	Fingolimod (Gilenya)	Nevirapine (Viramune)	Sirolimus (Rapamune)
Carbamazepine (TEGretol)	Fluoxymesterone	Ospemifene (Osphena)	Spironolactone (Aldactone)
Chloramphenicol (IV)	Ganciclovir (Cytovene) (IV)	Oxcarbazepine (Trileptal)	Tacrolimus (Prograf)
Cidofovir (IV)	Leflunomide (Arava)	Palifermin (Kepivance) (IV)	Teriflunomide (Aubagio)
Cyclosporine (Gengraf; Neoral; SandIMMUNE) (IV,PO)	Lenalidomide (Revlimid)	Phenoxybenzamine (Dibenzyline)	Thalidomide (Thalomid)
Deferiprone (Ferriprox)	Liraglutide recombinant (Saxenda; Victoza)(IM)	Porfimer (Photofrin)	Tofacitinib (Xeljanz)
Dexrazoxane (Totect; Zinecard) (IV)	Medroxyprogesterone acetate (IM,subq, PO)	Progesterone (PO, IM)	Valganciclovir (Valcyte)
Entecavir (Baraclude)	Methimazole (Tapazole)	Progestins	Zidovudine (Retrovir) (PO,IV)
Estradiol (PO, IM, transdermal, vaginal)			

Attachment D- Tier 3 Reproductive risk HDs			
Acitretin (Soriatane)	Dronedarone (Multaq)	Macitentan (Opsumit)	Ribavirin (Copegus)
Alitretinoin	Dutasteride (Avodart)	Menotropins (Menopur)	Riociguat (Adempas)
Ambrisentan (Letairis)	Duvelisib (Copiktra)	Mifepristone (Mifeprex)	Topiramate (Topamax)
Bosentan (Tracleer)	Ergonovine/ methylergonovine (IM, IV)	Misoprostol (Cytotec)	Tretinoin
Cabergoline	Eslicarbazepine (Aptiom)	Mogamulizumab-kpkc (Poteligeo)	Ulipristal (Ella)
Cemiplimab-rwlc (Libtayo) (IV)	Finasteride (Proscar)	Nafarelin (Synarel) (nasal)	Vigabatrin (Sabril)
Cetrorelix (Cetrotide) (subq)	Ganirelix (subq)	Pasireotide (Signifor)	Warfarin (Coumadin)
Clomiphene (Clomid)	Gonadotropin,chorionic (Novarel) (IM)	Pentetate calcium trisodium (IV, inhalation)	Ziprasidone (Geodon) (IM,PO)
Choriogonadotropin (Ovidrel)(subq)	Icatibant (Firazyr) (subq)	Peginesatide	Zoledronic acid (Reclast) (IV)
Dinoprostone (Cervidil; Prostin E2)	Iobenguane (AdreView) (IV)	Plerixafor (Mozobil) (subq)	Zonisamide (Zonegran)
	Lomitapide (Juxtapid)		

Attachment E- ONS Interim Guidelines during the COVID-19 Pandemic

PPE Shortages, Patient Care and Safe Handling of Hazardous Cancer Drugs

The COVID-19 pandemic is creating a growing shortage of personal protective equipment (PPE). Oncology nurses are caring for people with cancer during treatment and survivorship. Although ONS supports full protection of healthcare workers handling drugs for cancer treatment that the National Institute for Occupational Safety and Health (NIOSH) has deemed hazardous, nurses in clinical settings are facing difficult choices if recommended PPE supplies are not available. In addition, they are making choices regarding the protection of themselves and their patients from potential COVID-19 infection and use of PPE for safe handling of hazardous cancer drugs.
ONS supports recommendations that the first priority when allocating PPE supplies is maintaining the protection of patients and healthcare providers from COVID-19 infection. For care of patients with COVID-positive infections, follow the Centers for Disease Control and Prevention guidelines for prevention of infection and optimizing use of PPE.

PPE and Administering Cancer Drugs
The following ONS interim recommendations are for the use of PPE during clinical oncology care and for safe handling and administration of hazardous cancer drugs based on the Table 1 NIOSH list. The options are presented in descending order from highest-level recommended practice based on supplies of available PPE. Although ONS recognizes that these are not ideal, they are interim guidelines to support decision making and staff and patient safety in clinical care during the COVID-19 pandemic.

Gowns
Options:
- ***ONS Recommended:*** Disposable poly-coated gown
- Regular disposable gown (water resistant)
- Cloth gown (facility laundered) for infection control and nonhazardous drugs

Masks
Options:
- ***ONS Recommended:*** Mask with face and eye protection required only if splashing is likely and for spill cleanup
- Reserve N95 masks for symptomatic or COVID-positive patients, hazardous drug spills and cleanup.
- Use powered air purifying respirators (PAPRs).

Eye Protection
- ***ONS Recommended:*** Mask with eye protection or googles if splashing is likely or spill cleanup
- Can also use full facepiece air purifying respirators or PAPRs.

Gloves
Options:
- ***ONS Recommended:*** Double chemotherapy-tested gloves
- Single chemotherapy-tested glove
- Double standard exam gloves
- Single standard exam glove

Shoe Covers
Options:

- ***ONS Recommended:*** Use only in area for compounding hazardous drugs.
- Work-only, washable shoes

Processes for Practice

Evaluate workflows and processes to maximize efficiency and decrease waste of PPE supplies. Cluster care activities as much as possible and avoid touch contamination of surfaces.

Options for General Work Processes

- Follow hospital emergency policies regarding screening of patients and visitors.
- Consider using already-garbed staff for facility cleaning and disinfecting activities.
- Limit training of new staff and exclude students in cancer care areas.
- Restrict those with symptoms of illness (e.g., fever, cough) from entering the clinical area.
- Consider using facility-laundered scrubs under gowns.

Options for Safe Handling of Table 1 NIOSH Drugs

- ***Recommended:*** Per ONS and Hematology/Oncology Pharmacy Association guidelines (2019), use one poly-coated gown to hang or take down chemotherapy and double chemotherapy-tested gloves.
- Use one gown for one patient. Between uses, hang gown inside out near patient and away from surfaces where it could become contaminated.
- One nurse performs all takedowns of chemotherapy.
- Use gloves only and no gown for lower hazardous–risk drugs (e.g., rituximab).

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

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	Document No: 876	Page 1 of 10
Title: Management of Patients with Personal Insulin Pumps and/or Continuous Glucose Monitors during Hospitalization	**Effective Date:** 6/18/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 This guideline applies to all patients over the age of 2 years, at the Riverside University Health System- Medical Center with self-administration of insulin via established insulin pump and/or continuous glucose monitor (CGM) excluding Hospital-Based Clinics and Arlington Campus.

2. DEFINITIONS

2.1 **Automated Insulin Delivery Insulin Pump** system is interfaced with CGM, which alters basal insulin delivery in response to trajectories and absolute concentrations of interstitial glucose. Importantly, patients will still need to bolus for carbohydrate intake and may need to administer correction dose of insulin.

2.2 **Basal Dose**: A continuous delivery of insulin via a self-administering insulin pump. This is the amount of insulin the patient requires to maintain a normal metabolic state when fasting. Rapid/short acting insulin is used.

2.3 **Bolus Dose:** Dose of insulin given at mealtimes and/or for correction/sliding scale coverage. Rapid/short acting insulin is used.

2.4 **Caregiver:** Parent or legal guardian who provides care for the patient at home.

2.5 **Continuous Glucose Monitors/ Sensor (CGM)** systems use a small “sensor” inserted subcutaneously to continuously measure glucose levels in interstitial fluid. Results from the sensor are transmitted to a “receiver” device (which at times can be a smart phone), which displays real-time glucose levels and glycemic trends.

2.6 **Inpatient Diabetes Team:** Including but not limited to an endocrinologist, physician assistant, nurse practitioner, diabetes team coordinator and diabetes nurse educators.

2.7 **Continuous Subcutaneous Insulin Infusion (CSII) / Insulin Pump:** An external continuous infusion device used to deliver a constant infusion of rapid-acting insulin (pre-set basal insulin rates) and patient-delivered pre-meal boluses and correction boluses of insulin to manage glycemic control.

2.8 **Infusion Site**: Site at which the tip of the catheter is inserted into the subcutaneous tissue.

2.9 **Point of Care Testing/ POCT**: (also called “finger-stick,” “accu-check,” “blood sugar check.”) A bedside test done by using a hospital approved (multi-patient) glucometer.

2.10 **Primary Physician Team:** Physicians assigned to patient’s medical care management.

3. GUIDELINES

3.1 The admitting provider evaluates if the patient or identified caregiver (significant other (SO), caregiver) is capable of self-management of the insulin pump and/or CGM system.

3.2 The patient's insulin pump settings (i.e., basal-bolus settings) may require adjustment during hospitalization to prevent, or at least minimize, hyper- and hypoglycemia, including but limited to:

a. Stress of illness, infection, surgery

b. Alterations in carbohydrate intake

c. Enteral or parenteral nutrition

d. Administration of medications that may alter glycemic control (e.g., steroids, pressors, octreotide, etc.)

3.3 Adjustments to the insulin pump settings are ordered by the provider or endocrinologist.

3.4 The patient/caregiver maintains and adjusts the settings for his/her insulin pump per provider or endocrinologist order.

3.5 If surgery is planned, the medical team and the patient will collaborate on the use of the insulin pump and/or CGM in perioperative period.

3.6 CGM is not FDA-approved to guide inpatient hospital therapy. However, when the CGM is alarming, the patient agrees to inform hospital staff and utilize only hospital approved glucometers for therapeutic intervention and clinical documentation in the electronic medical record (EMR).

4. PROCEDURE

<u>Continuous Subcutaneous Insulin Infusion (CSII / Insulin) Pump</u>

4.1 The provider will verify that the patient wishes to maintain control of their medical condition by continuing use of his/her insulin pump during the hospital stay and is able to participate in self-care.

4.2 The provider will confirm the patient's (or caregiver's) ability to manage the insulin pump including:

a. Fully alert and oriented to person, place, and time.

b. Manual dexterity to manage insulin pump and infusion set changes.

c. Visual acuity sufficient to properly read the pump screens and device buttons.

d. Ready access to patient's insulin pump supplies, provided by the patient or family/SO from home.

e. A signed agreement from the patient or caregiver for insulin pump management during admission. The signed form is to be placed in the patient's medical record and a copy given to the patient.

4.3 The provider will assess for potential contraindications to insulin pump management including:

a. Patient/caregiver unable to manage insulin pump due to change in patient's cognition, impaired level of consciousness, manual dexterity or visual

limitations.

b. Behavioral/self-harm concerns (not an absolute contraindication; psychiatrist to determine).

c. Major psychiatric disturbance (not an absolute contraindication; provider to determine).

d. Lack of patient/caregiver–provided insulin pump supplies.

e. Medical conditions, such as DKA / HHS, critical illness.

f. Insulin pump malfunction.

g. Other reasons as determined by provider.

4.4 The provider will explain to the patient that the health care team reserves the right to remove the pump from the patient at any time during their stay if it is assessed that the patient is no longer able to manage his/her own care.

4.5 The provider will make an alternative insulin replacement plan (Basal-Bolus-Correction insulin regimen or insulin infusion order) and allow removal of the insulin pump from the patient in the event the insulin pump is discontinued.

4.6 Nurse to confirm patient-supplied insulin pump supplies are available to support pump use throughout the hospital stay as the hospital does NOT stock these supplies for insulin pumps. There should be enough supplies for scheduled changes and at least one unscheduled site change. These are to be kept at the patient's bedside.

4.7 Patient supplied insulin will not be used while hospitalized. The Provider can order a vial to be verified and supplied by the Pharmacy.

4.8 Nursing will verify that a provider order exists in the patient's medical record for use of insulin pump in the hospital setting. The order must contain the following:

a. To leave insulin pump in place and continue current basal rates and other settings.

b. Manufacturer of insulin pump.

c. Generic and Brand name of insulin used in the pump as well as concentration.

d. Basal rate settings including hourly doses with start and stop time.

e. Bolus dose parameters for mealtime and correction insulin for off-target glucose readings.

f. For hybrid closed-loop (HCL) insulin pump systems only, an indication that the insulin pump is capable of "automated delivery mode" for basal insulin alterations and/or auto-boluses.

g. Target blood glucose ranges.

h. Hospital POC glucose testing with associated Hypoglycemia Management Orders.

i. Infusion site change at least every 72 hours

- Infusion site may be changed sooner if inflammation, tenderness, redness, swelling, bleeding of site or blood glucose results greater that 250mg/dL for 2 consecutive readings at least 2 hours apart.
- Point of care blood glucose testing one hour after infusion site change to

assess insulin delivery /absorption.

j. Removal of insulin pump before radiological procedures unless the device manufacturer provides information supporting safe use. If the device cannot be temporarily stopped, see Appendix B for additional information for evaluation of risks and benefits.

k. Diet order for consistent carbohydrate

l. Consultations as applicable per delivery network:

- Endocrinology
- Diabetes Team RN

4.9 Nurse will document the presence of the insulin pump as well as the date of the last infusion set and site change on admission.

4.10 Nurse will communicate to the patient the POC glucose each time it's performed. Nurse will document in the MAR all patient-administered mealtime bolus and correction doses in real time, which will include the time of administration and the units of insulin given.

4.11 Nurse will assess and document the location and appearance of the infusion site for signs of inflammation or infection once a shift.

4.12 Nurse will notify the provider if:

a. Blood glucose targets are not consistently maintained.

b. Any concerns with patient's ability to self-manage their insulin pump.

c. Patient is unable to change infusion set due to lack of supplies or otherwise unable.

4.13 Provider to notify Radiology Department if patient is scheduled for any radiological procedure involving x-ray/fluoroscopy, CT scanning or MRI that the patient utilizes an insulin pump. See Appendix B for additional information.

a. Provider should order to remove the insulin pump prior to these radiological procedures.

- For imaging time less than an hour, the insulin pump may be temporarily disconnected from the patient with no alternate insulin therapy provided.
- For imaging time greater than an hour the provider should consider ordering an alternate form of insulin therapy.

b. The insulin pump must be kept outside of the room where the diagnostic imaging procedure is being performed.

c. Infusion sets that contain a metal cannula must be removed by the patient prior to MRI.

4.14 If insulin pump is discontinued due to patient/caregiver inability to self-manage, unsupported Insulin, or other critical medical condition the following must occur:

a. Alternate insulin therapy must be immediately ordered (SC or infusion) and initiated.

b. Insulin pump must be disconnected from the patient.

c. Insulin pump will be either secured by staff per individual facility policy or sent

home with a designated family member/SO.

Continuous Glucose Monitoring (CGM) System

4.15 The provider will confirm the patient's (or identified SO, Caregiver) ability and understanding for use of CGM in the hospital setting including.

a. Fully alert and oriented to person, place, and time.

b. Treatment decisions will be based on hospital point of care blood glucose meter results and not CGM values as CGM is not FDA approved for inpatient glycemic monitoring or management.

c. CGM results are for patient's own information only.

d. Manual dexterity to change sensor and calibrate as necessary.

e. Results from hospital POCT glucose may be used for CGM calibration (as indicated by manufacturer)

f. A signed agreement from the patient/caregiver for CGM monitoring during admission. The signed form is to be placed in the patient's medical record and a copy given to the patient.

4.16 Nurse to confirm patient-supplied CGM supplies are available to support CGM use during admission as the hospital does NOT stock these supplies.

4.17 Nurse to assess CGM insertion site every shift and document site assessment in flowsheet in EMR.

4.18 Provider to notify Radiology Department (if/when scheduled for radiological procedures) that the patient is wearing a CGM. CGM manufacturers indicate that CGM must be removed by patient prior to CT scanning or MRI, and device should not be exposed to X-rays. See Appendix B for additional information.

4.19 Consultations as applicable per delivery network:

a. Endocrinology

b. Diabetes Team RN

4.20 If CGM must be removed because patient is undergoing diagnostic procedures and/or runs out of necessary supplies:

a. Sensor & transmitter must be physically removed from the patient.

b. CGM transmitter and receiver will remain with patient belongings or sent home with designated family member/SO.

Automated Insulin Delivery Insulin Infusion Pump

4.21 Automatic Mode (algorithm-regulated basal rates) is not appropriate in all clinical situations. Therefore, the provider will confirm the patient's ability to manage the insulin pump and the patient will agree to suspend the pairing of the insulin pump and CGM. The insulin pump will be set to "Manual Mode" and remain independent from the CGM during admission. This must be indicated in the Insulin Pump Order Set. Refer to section 3.6 above.

a. The insulin pump and CGM will be managed as independent equipment and in accordance with section 4 where applicable.

4.22 Examples of inappropriate use of automatic mode on admission include, but are not

limited to:

a. High-dose steroid therapy

b. DKA, HHS or critical illness

c. Patient without sensor supplies available.

d. Any sensor issues or malfunctions

e. At the discretion of the provider

5. REFERENCES

5.1 American Diabetes Association (January 2023). Standards of Medical Care in Diabetes – 2023. The Journal of Clinical and Applied Research and Education, 45 (Supplement 1). Retrieved January 10, 2023, from http://care.diabetesjournals.org

5.2 Draznin, B. MD, PhD (2016) Managing Diabetes and Hyperglycemia in the Hospital Setting: A clinician's Guide. Alexandria, VA: American Diabetes Association.

5.3 The Joint Commission Certification Disease Specific Manual, Comprehensive Certification Manual for Disease Specific Care Including Advanced Programs for DSC Certification

6. ATTACHEMENTS

6.1 Attachment A: Continuation of Patient Insulin Pump / CGM Use Agreement Form in the Hospital (Form #6)

6.2 Attachment B: Considerations on Insulin Pump / CGM

Document History:

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5/16/2024	Nursing P&P	Y	Update on the process for MRI and devices, and Amend section 4.21 to reflect no connection between CGM and Pump.
6/4/2024	PAC		
6/3/2024	Pharmacy & Therapeutics Committee	N	

Attachment 6.1

I, _____, am requesting to use my personal insulin pump and/or continuous glucose monitor (CGM) during my hospitalization. I understand that for my safety during this hospital stay, I must agree to each of the following conditions to use my insulin pump and/or CGM. If I feel that if I cannot agree to these conditions, I will need to discontinue the use of my insulin pump and/or CGM. If my insulin pump and/or CGM are discontinued, the medical care team will treat my diabetes with insulin injections.
Please read and initial each statement:

During my hospital stay:

1) _____ I will only use the basal infusion delivery method on my insulin pump, as prescribed.
If applicable, bolus and correction insulin **WILL NOT** be given through my pump.
Bolus and correction insulin may be given through subcutaneous injections by the nurse, based on the doctor/ endocrinologist order.

2) _____ I will review my insulin basal and/ or bolus rate(s) with my admitting nurse. I agree NOT to change the basal and/ or bolus settings by myself. I will make changes to my basal and/ or bolus settings with the Diabetes Team nurse supervision, when ordered from the doctor/ endocrinologist.

3) _____Any bolus or correction insulin dose I receive must be based on a reading from the hospital glucometer only. I agree to temporarily disrupt pairing of my insulin pump and CGM and enter the blood glucose results from the hospital approved glucometer into my insulin pump during my hospital admission. I will not use any other glucometer to measure my blood sugars.

4) _____The hospital glucometer blood glucose results (not my CGM) will be used to determine diabetes management during my hospital stay.

5) _____ It is my responsibility to provide all pump and/ or CGM supplies during my stay. The hospital will supply an insulin vial for my pump refill.

6) _____ I will report signs and symptoms of low blood sugar to my nurse.

7) _____ I will report any insulin pump and/or CGM problems to my nurse.

8) _____ My insulin pump and/or CGM will be discontinued if I cannot care for it myself for any reason or if deemed necessary by my primary care physician/ Diabetes Team. (Examples may include confusion or medications that may make me sleepy or less alert)

9) _____ My insulin pump and/or CGM may be discontinued for certain tests and procedures, including surgery, MRI, CT scans or X-rays.

10) _____ I have received training prior to my admission in the use of my personal insulin pump and/ or CGM. I understand assistance is available to me during my admission if I have difficulty restoring communication between my CGM and insulin pump before discharge.

11) _____ I will change the insulin pump insertion site and tubing at least every 72 hours in the presence of my bedside nurse or the Diabetes Team nurse. I will routinely check for kinked tubing or skin irritation.

12) _____ I will change the CGM insertion site at least every 7-14 days (based on model) in the presence of my bedside nurse or the Diabetes Team nurse. I will routinely check for skin irritation.

The manufacture and model of my insulin pump is: _____

The manufacture and model of my CGM is: _____

The doctor coordinating my diabetes care or my Certified Diabetes Care and Education Specialist:

Name: _____ Tel no.:_____

My signature indicates that I have read this agreement, understood it completely, and agree to be bound by its terms.

Patient/Legal Guardian (Print Name): _____

Patient's/Legal Guardian Signature: _____

Date: _____ Time: _____

Attachment 6.2

The insulin pump or CGM system are to be removed before any radiological procedure involving x- ray/fluoroscopy, CT scanning or MRI unless the device manufacturer provides information supporting safe use. If the device cannot be temporarily stopped, see the below for additional information for evaluation of risks and benefits.

Insulin Pump and CGM Systems during X-ray exams, CT scans and MRI

- The presence of an insulin pump or glucose monitor should not preclude medically indicated CT or X-ray imaging but device should be removed whenever possible.
- The probability that x-ray or CT scan irradiation causes a device malfunction, and an adverse event is extremely low and even less if the device is not in the region that is being imaged.
- No known adverse events during CT imaging of insulin pumps or glucose monitors are reported. Other electronic devices such as cardiac implantable electronic devices and neurostimulators have reported possible adverse events but there is little evidence that CT irradiation was the direct cause of these events.
- Standard MRI safety precautions should be followed prior to MRI. Many insulin pumps and glucose monitors are deemed MRI UNSAFE and MUST be removed as there is high potential for device damage and potential patient injury.

Recommendations for Physicians ordering CT scan or X-ray:

Advise patient/caregiver to remove device during exam. If the device can't be removed or patient/caregiver refuses, assess if imaging will cover the area over the insulin pump or CGM system and see if system can be safely moved, attached to a different location, turned off and for how long, or if alternative diabetes management is required.

Recommendations for Radiologists and X-ray/CT Radiologic Technologists:

1. Advise patient/caregiver to remove device and store it in control room during imaging procedure.
2. If patient/caregiver can't remove or refuses to remove device:
    a. Advise patient/caregiver that device damage is possible and ensure they understand potential risk of damage and agree to proceed with imaging.
    b. If system is tethered to a cannula and can be safely moved, work with the patient/caregiver to move it to avoid direct exposure to the primary x-ray beam.
    c. If the system cannot be safely moved, ask the patient/caregiver if it can be safely turned off during the exam. Set a timer and remind the patient/caregiver to turn their pump back on afterwards and to check it for proper function.
    d. If possible, avoid including the insulin pump or CGM system inside the scanning range. Confirm the required anatomic range with the supervising radiologist.
3. For CT and X-ray procedures where the medical device is located within the programmed scan range and cannot be safely moved or turned off, minimize direct x- ray exposure to the electronics of the infusion pump by following standard ALARA (as low as reasonably achievable) protocol.

Imaging exams that would involve scanning directly over the electronics of the device for more than several seconds (i.e. CT perfusion exams or interventional procedures such as CT fluoroscopy), require

additional care and should not be performed unless the device can be safely relocated or turned off. If moving or turning the insulin pump or CGM system off is not possible and the scan is urgently needed, careful monitoring of the device during and after the procedure is required.

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
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<table>
<tr><td></td><td>Document No: 601.5</td><td>Page 1 of 6</td></tr>
<tr><td>Title:

Health Care Decisions for Unrepresented Patients</td><td>Effective Date:

6/20/2024</td><td colspan="2">☐ RUHS – Behavioral Health
☐ RUHS – Community Health Centers
☐ RUHS – Hospital Based Clinics
☒ RUHS – Medical Center
☐ RUHS – Public Health
☐ Departmental</td></tr>
<tr><td colspan="2">Approved By:
 
Jennifer Cruikshank
CEO/Hospital Director</td><td colspan="2">☒ Policy
☐ Procedure
☐ Guideline</td></tr>
</table>

1. PURPOSE

1.1. The purpose of this policy is to provide a process for making ethically and medically appropriate treatment decisions on behalf of persons receiving treatment at Riverside University Health System - Medical Center who lack health care decision-making capacity and for whom there is no substitute decision maker. Despite their incapacity, such “unrepresented” patients are entitled to have ethically and medically appropriate medical decisions made on their behalf and to have these decisions made in their best interest. This policy is considered necessary since no clear-cut legal guidelines exist that cover these circumstances for general acute care hospitals.

1.2. This policy is procedural in nature and applies to most medical decisions for which informed consent is usually required. This policy shall not apply to emergency medical situations or decisions pertaining to disposition of remains, autopsies, termination of pregnancy or anatomical gifts. Likewise, this policy does not authorize consent to commitment to or placement in a mental health facility, electroconvulsive therapy, psychosurgery, or sterilization.

1.3. Adoption of this policy does not preclude any party from seeking judicial intervention. Appropriate judicial remedies may include a timely court order authorizing the provision, withdrawing, or withholding of treatment or appointment of a conservator or other decision maker; however, in the absence of disagreement, courts are not necessarily the proper forum in which to make health care decisions.

2. DEFINITIONS

2.1. “Decision-making capacity” is defined as an individual’s ability to (1) understand the nature and consequences of a decision and (2) to make and (3) communicate a decision. Decisional capacity can vary over time and patients that cannot make a decision about one aspect of their care may still retain that capacity with regard to other decisions. Patients are presumed to have full decisional capacity until a physician determines that a patient lacks capacity to make informed decisions. This determination will be documented in the patient’s medical record.

2.2. Substitute Decision Maker – Someone who can make healthcare decisions for a patient who lacks capacity to make informed decisions. Legally recognized surrogate decision makers in California include:

a. Conservator: A competent adult, designated by a court to make health care decisions for the patient;

b. Healthcare Agent: A competent adult designated in an advance directive to make health care decisions for the patient;

c. Surrogate: A competent adult, designated by the patient to make health care decisions for the patient; such designations should be recorded in the patient's medical records.

d. Provider-designated surrogate: If the patient is unable to designate a surrogate, the health care provider or designee of the health care facility caring for the patient may choose a surrogate to make health care decisions on the patient's behalf. This surrogate is a competent adult who has demonstrated special care and concern for the patient, is familiar with the patient's personal values and beliefs, and is reasonably available and willing to serve. This surrogate may be a close adult relative or friend who is available and willing to make decisions for the patient.

3. POLICY

3.1. This policy may be used when all of the following conditions are met:

a. The patient has been determined by the primary physician (with assistance from appropriate consulting physicians if necessary) to lack capacity to make health care decisions. Conditions for which psychiatric or psychological treatment may be required do not, in and of themselves, constitute a lack of capacity to make health care decisions.

b. No agent under a durable power of attorney for health care, conservator, patient-designated surrogate, or guardian has been designated to act on behalf of the patient.

c. There is no individual health care directive or instruction in the patient's medical record or other available sources that would eliminate the need for a substitute decision maker.

d. No decision maker, family member, or friend can be located who is reasonably available and who is willing and able to make decisions for the patient.

3.2. Efforts to locate a decision maker should be diligent and may include contacting the facility from which the patient was referred, and contacting public health or social service agencies known to have provided treatment for the patient.

3.3. Decisions made without clear knowledge of an unrepresented patient's specific treatment preferences must be made in the patient's best interest, taking into consideration the patient's personal history, values and beliefs to the extent that these are known. Decisions about treatment should be based on sound medical advice and should be made without the influence of material conflicts of interest. These decisions must be made with a focus on the patient's interests, and not the interests of providers, the institutions, or other affected parties. In this regard, appropriate health care decisions include both the provision of needed medical treatment and the avoidance of nonbeneficial or excessively burdensome treatment, or treatment that is medically ineffective or contrary to generally accepted health care standards.

3.4. When use of this policy is appropriate (as outlined above), medical decisions will be made by a multi-disciplinary team whose members shall include, but not be limited to, individuals directly involved with the care of the patient. The multi-disciplinary team may include:

a. An attending physician

b. Nurse familiar with the patient

c. Social worker familiar with the patient

d. Representative from the Ethics service

e. Representative from the Palliative Care team

f. Non-medical (community) member

g. If available and appropriate, consulting clinicians and pastoral care staff

h. A family member or friend who is unable or unwilling to take full responsibility for making health care decisions on behalf of the patient, but who is willing to serve as part of this team. If no such person exists, the hospital may consider including the Patient advocate.

3.5. In order to determine the appropriate medical treatment for the patient, the multi-disciplinary team should:

a. Review the diagnosis and prognosis of the patient and assure itself of the accuracy thereof.

b. Determine appropriate goals of care by weighing the following considerations:

i. Patient's previously-expressed wishes, if any and to the extent known

ii. Relief of suffering and pain

iii. Preservation or improvement of function

iv. Recovery of cognitive functions

v. Quality and extent of life sustained

vi. Degree of intrusiveness, risk or discomfort of treatment

vii. Cultural or religious beliefs, to the extent known

c. Establish a care plan based upon the patient's diagnosis and prognosis and the determination of appropriate goals of care. The care plan should determine the appropriate level of care, including categories or types of procedures and treatments.

d. Notify the patient, both orally and in writing, that:

i. He or she has been determined to lack the capacity to make a health care decision;

ii. It has been determined that he or she lacks a substitute decision maker;

iii. Medical intervention has been prescribed by the attending physician (the prescribed treatment must be described);

iv. A multi-disciplinary team will make a decision about the prescribed treatment, and the patient has the right to have a representative participate on this multi-disciplinary team; and

v. He or she has the right to seek judicial review of the above determinations.

e. Except in emergency circumstances, the prescribed medical treatment should not be implemented until after notice has been given to the patient and the patient has been given a reasonable opportunity to seek judicial review.

3.6. Except to the extent that such a factor is medically relevant, any medical treatment decision made pursuant to this policy shall not be biased based on the patient's age, sex (including gender identity and gender expression), race, color, religion, ancestry, national origin, disability, medical condition, genetic information, marital status, sexual orientation, citizenship, primary language, immigration status, the ability to pay for health care services, or avoidance of burden to family/others or to society.

3.7. Under the terms of this policy, the multi-disciplinary team may make the same treatment decisions, and will have the same limitations, as an agent appointed pursuant to a power of attorney for health care specified under current law, including those identified in paragraph 1.2.

3.8. The multi-disciplinary team must assure itself that the medical decision is made based on sound medical advice, is in the patient's best interest and takes into account the patient's values, to the extent known. In determining the best interest of the patient, it is not required that life support be continued in all circumstances, such as where treatment is otherwise nonbeneficial, medically ineffective or contrary to generally accepted health care standards; when the patient is terminally ill and suffering; or where there is no reasonable expectation of the recovery of cognitive functions.

3.9. Agreement on Treatment

a. If all members of the multi-disciplinary team agree to the appropriateness of providing treatment, it shall be provided.

b. If all members of the multi-disciplinary team agree to the appropriateness of withholding or withdrawing treatment, it shall be withdrawn or withheld. Any implementation of a decision to withhold or withdraw life-sustaining medical treatment will be the responsibility of the primary treating physician.

3.10. Disagreement on Treatment

a. If the members of the multi-disciplinary team disagree about the care plan, the ethics committee, ethics resource expert(s) or other resource experts will meet with the team to explore their disagreement and facilitate resolution.

b. If agreement is reached either to provide or to forgo treatment, the decision of the multi- disciplinary team then becomes final.

c. If agreement still is not reached, current treatments will be continued and any other medically necessary treatments provided, until the issue is resolved through court intervention or the disagreement is otherwise resolved.

d. Court-imposed legal remedies should be sought only in extreme circumstances and as a last resort.

e. In all cases, appropriate pain relief and other palliative care shall be continued.

3.11. Exceptional Circumstances

a. Legal counsel should be consulted if a decision to withdraw or withhold treatment is likely to result in the death of the patient and the situation arises in any of the following circumstances:

i. The patient's condition is the result of an injury that appears to have been inflicted by a criminal act.

ii. The patient's condition was created or aggravated by a medical incident.

iii. The patient is pregnant.

iv. The patient is a parent with sole custody or responsibility for support of a minor child.

b. Legal counsel may be consulted in the absence of exceptional circumstances.

3.12. Documentation

a. Signed, dated and timed medical record progress notes will be written for the following:

i. The findings used to conclude that the patient lacks medical decision-making capacity.

ii. The finding that there is no advance health care directive; no conservator, guardian, surrogate or other available decision maker; and no relevant health care instructions in the patient's medical record or other available sources.

iii. The attempts made to locate substitute decision makers, family members, and friends and the results of those attempts.

iv. Notification was provided to the patient, both orally and in writing, that includes the information listed in section 3.5.4. A copy should be given to the person representing the patient's interests.

v. The bases for the decision to treat the patient and/or the decision to withhold or withdraw treatment.

vi. Any information from the ethics committee or other consult, should it be convened.

4. REFERENCES

4.1. California Hospital Association (CHA) 2023 Consent Manual

4.2. RUHS – Medical Center HW 602 Patient Informed Consent

4.3. RUHS – Medical Center HW 602.3 Informed Consent Antipsychotic Medication

4.4. RUHS – Medical Center HW 606.1 Consent for Blood Transfusion Paul Gann Act

5. ATTACHMENT

5.1. Notification Form for Unrepresented Patients in English

5.2. Notification Form for Unrepresented Patients in Spanish

Document History:

Prior Release Dates: New	**Retire Date:** N/A
Document Owner: Medical Director, Inpatient Services	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
5/2024	**Next of Kin/Unrepreseted Patients work group:** Christy Clever Joseph Van Campen Wael Hamade, MD Jonelle Morris Aleca Clark, MD Grace Oei, MD Susie Morris, MD Renee Garcia, MD Gregg Gu, JD Roger Garrison, DO		
5/16/2024	Nursing P&P	Y	Minor wording and clarifications
5/20/2024	PAC	Y	Additional references and clarifications of scope
6/13/2024	MEC	N	

Notification Form for Unrepresented Patients

(Must be given to the patient both orally and in writing)

Patient Name:_____

Your doctor, Dr._____ , has carefully evaluated your physical, medical and cognitive condition and concluded that you do not have the ability to make decisions about your medical treatment.

The hospital has tried to find a family member or friend of yours to make health care decisions for you. The hospital has not been able to find anyone to do that. If you have a family member or friend who you want to make health care decisions for you, please tell us

Your doctor has recommended the following treatment, believing that this is the best treatment for you your the circumstances:

_____

_____

_____

A multi-disciplinary team of health care professionals, including your doctor and nurses and others, agrees that this is the best treatment for you. You have the right to have someone represent you on this team. Please tell us if there is someone you want to participate on this team.

Unless your doctor receives direction otherwise, your doctor intends to proceed with this treatment. You may wish to consider contacting an attorney as soon as possible to explore your legal options if you disagree with the proposed treatment.

Here are some people who might be able to help you in this regard:

- Riverside Legal Aid, 4129 Main St., Ste. 101, Riverside; (951) 682-7968.
- Riverside County Superior Court – Self-Help Information Centers (951) 274-4499

Hospital Employee to Complete:

I gave a copy of this form to the above-named patient and explained to him/her the contents of it on

_____ *[date]* at

_____ *[time]* a.m./p.m.

Signature:_____ Print name:_____

Formulario de notificación para pacientes sin representación

(Debe entregarse al paciente de forma oral y escrita)

Nombre del paciente:_____

Su médico, el Dr._____ , ha evaluado cuidadosamente su condición física, médica y cognitiva y ha llegado a la conclusión de que usted no cuenta con la capacidad de tomar decisiones sobre su tratamiento médico.

El hospital ha tratado de encontrar un familiar o amigo suyo para que tome decisiones de atención médica por usted, pero no ha podido encontrar a nadie que pueda hacerlo. Por favor, infórmenos si tiene un familiar o amigo que desea que tome decisiones de atención médica por usted.

Su médico ha recomendado el siguiente tratamiento, por considerar que es el mejor tratamiento para usted dadas las circunstancias:

_____

_____

_____

Un equipo multidisciplinario de profesionales de la salud, que incluye a su médico y al personal de enfermería, entre otros, está de acuerdo en que éste es el mejor tratamiento para usted. Usted tiene derecho a que alguien le represente en este equipo. Por favor, díganos si hay alguien que usted desea que participe en este equipo.

A menos que su médico reciba instrucciones de lo contrario, él tiene la intención de proceder con este tratamiento. Es posible que desee ponerse en contacto con un abogado lo antes posible para explorar sus opciones legales si no está de acuerdo con el tratamiento propuesto.

Aquí hay un listado de personas que podrían ayudarle en este asunto:

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Para ser llenado por el empleado del hospital:

Le entregué una copia de este formulario al paciente mencionado anteriormente y le expliqué su contenido el

_____ *[fecha]* a la(s)

_____ *[hora]* a.m./p.m.

Firma:_____ Nombre en letra de imprenta:_____

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e. Except in emergency circumstances, the prescribed medical treatment should not be implemented until after notice has been given to the patient and the patient has been given a reasonable opportunity to seek judicial review.

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a. Legal counsel should be consulted if a decision to withdraw or withhold treatment is likely to result in the death of the patient and the situation arises in any of the following circumstances:

i. The patient's condition is the result of an injury that appears to have been inflicted by a criminal act.

ii. The patient's condition was created or aggravated by a medical incident.

iii. The patient is pregnant.

iv. The patient is a parent with sole custody or responsibility for support of a minor child.

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Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
5/2024	**Next of Kin/Unrepreseted Patients work group:** Christy Clever Joseph Van Campen Wael Hamade, MD Jonelle Morris Aleca Clark, MD Grace Oei, MD Susie Morris, MD Renee Garcia, MD Gregg Gu, JD Roger Garrison, DO		
5/16/2024	Nursing P&P	Y	Minor wording and clarifications
5/20/2024	PAC	Y	Additional references and clarifications of scope
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Notification Form for Unrepresented Patients

(Must be given to the patient both orally and in writing)

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The hospital has tried to find a family member or friend of yours to make health care decisions for you. The hospital has not been able to find anyone to do that. If you have a family member or friend who you want to make health care decisions for you, please tell us

Your doctor has recommended the following treatment, believing that this is the best treatment for you your the circumstances:

_____

_____

_____

A multi-disciplinary team of health care professionals, including your doctor and nurses and others, agrees that this is the best treatment for you. You have the right to have someone represent you on this team. Please tell us if there is someone you want to participate on this team.

Unless your doctor receives direction otherwise, your doctor intends to proceed with this treatment. You may wish to consider contacting an attorney as soon as possible to explore your legal options if you disagree with the proposed treatment.

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Hospital Employee to Complete:

I gave a copy of this form to the above-named patient and explained to him/her the contents of it on

_____ *[date]* at

_____ *[time]* a.m./p.m.

Signature:_____ Print name:_____

Formulario de notificación para pacientes sin representación

(Debe entregarse al paciente de forma oral y escrita)

Nombre del paciente:_____

Su médico, el Dr._____ , ha evaluado cuidadosamente su condición física, médica y cognitiva y ha llegado a la conclusión de que usted no cuenta con la capacidad de tomar decisiones sobre su tratamiento médico.

El hospital ha tratado de encontrar un familiar o amigo suyo para que tome decisiones de atención médica por usted, pero no ha podido encontrar a nadie que pueda hacerlo. Por favor, infórmenos si tiene un familiar o amigo que desea que tome decisiones de atención médica por usted.

Su médico ha recomendado el siguiente tratamiento, por considerar que es el mejor tratamiento para usted dadas las circunstancias:

_____

_____

_____

Un equipo multidisciplinario de profesionales de la salud, que incluye a su médico y al personal de enfermería, entre otros, está de acuerdo en que éste es el mejor tratamiento para usted. Usted tiene derecho a que alguien le represente en este equipo. Por favor, díganos si hay alguien que usted desea que participe en este equipo.

A menos que su médico reciba instrucciones de lo contrario, él tiene la intención de proceder con este tratamiento. Es posible que desee ponerse en contacto con un abogado lo antes posible para explorar sus opciones legales si no está de acuerdo con el tratamiento propuesto.

Aquí hay un listado de personas que podrían ayudarle en este asunto:

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- Riverside County Superior Court – Self-Help Information Centers (951) 274-4499.

Para ser llenado por el empleado del hospital:

Le entregué una copia de este formulario al paciente mencionado anteriormente y le expliqué su contenido el

_____ *[fecha]* a la(s)

_____ *[hora]* a.m./p.m.

Firma:_____ Nombre en letra de imprenta:_____

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 602.4	Page 1 of 3
Title: Use of Levonorgestrel as Emergency Contraception for Patients Unable to Give Consent	**Effective Date:** 6/20/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 To set internal policy for the administration of Levonorgestrel for inpatients, including those under the age of 18, who are unable to give their own consent or declination. This policy applies to all patients of child-bearing age and capability, who are admitted to RUHS-Medical Center, who qualify for administration of emergency contraceptives.

2. DEFINITIONS

2.1 Capacity. A person's ability to understand the nature and consequences of a decision and to make and communicate a decision, and includes in the case of proposed health care, the ability to understand the significant benefits, risks, and alternatives.[5.7]

2.2 Surrogate decision-maker. Where a patient lacks capacity, the most appropriate decision-maker is an adult person who has a close, caring relationship with the patient, is aware of the patient's values and beliefs, and is willing and able to make the needed decisions.[5.8]

2.3 Emergency Contraceptive: a medication to prevent unintended pregnancy

3. GUIDELINES

3.1 Overview

a. Nothing in this policy shall supersede the patient's right to make the decision to take Levonorgestrel.[5.1,5.2,5.3.]

b. Levonorgestrel is the preferred agent as the standard of care for pregnancy prevention, when medically appropriate, for victims of sexual assault.[5.4]

i. If unavailable, may use alternative agent i.e. ulipristal

c. Levonorgestrel should be administered as soon as possible within 72 hours of unprotected vaginal sexual penetration or contraceptive failure.[5.5]

d. Levonorgestrel, while authorized over the counter for some patients, must be ordered by the patient's care team for inpatient administration.

3.2 Medical Assessment/ History- Review of the patient's medical history shall be made prior to the administration of Levonorgestrel to include:

a. Menstruation status—pre-menarche, post-menopause, post-hysterectomy, etc.

b. Last known menstrual period.

c. Review results of any ordered pregnancy testing during the present admission.

3.3 Informed Consent

a. The patient's medical team will provide the patient's surrogate decision-maker with the risks and benefits of taking the medication prior to receiving consent for the administration of Levonorgestrel per HW Policy 602.[5.6]

3.4 Orders/ Obtaining Medications

a. The patient's care team practitioner shall enter the order for Levonorgestrel 1.5 mg to be given via enteral feeding tube or orally (depending on the situation).

3.5 Pre-Administration Assessment by Nursing

a. Verify negative pregnancy test.

b. Obtain and dissolve Levonorgestrel per unit policy.

3.6 Documentation

a. Patient's nurse will document administration of Levonorgestrel in Medical Record per Housewide Policy 852.[5.9]

4. REFERENCES

4.1 California Family Code §6925. Last revised September 29, 1996.

4.2 California Family Code § 6927. Last revised January 1, 1994.

4.3 California Family Code § 6928. Last revised January 1, 2019.

4.4 Office on Violence Against Women (2013). A National Protocol for Sexual Assault Medical Forensic Examinations, adults/ adolescents (2nd ed.) U.S. Department of Justice.

4.5 https://www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/plan-b-one-step-15-mg-levonorgestrel-information Last updated 12/23/2022.

4.6 RUHS Medical Center Housewide Policy 602 Patient Informed Consent. Last revised September 7, 2021.

4.7 California Probate Code § 4609. Last amended January 1, 2002.

4.8 California Probate Code §4712(b). Last amended January 1, 2023.

4.9 RUHS Medical Center Housewide Policy 852 Medication Administration. Last revised July 21, 2023.

Document History:

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Document Owner: SAFE Clinic Nurse Coordinator	**Replaces Policy:** N/A

Date Reviewed	Reviewed By:	Revisions Made Y/N	Revision Description
12/1/2023	SAFE Clinic	(No)	
12/13/2023	County Counsel's Office	Yes	Updated references
12/14/2023	Dr. Bryan Oshiro (OB)	No	
12/14/2023	Dr. Grace Oei (Pediatrics)	No	
1/4/2023	Pre-Nursing P&P	Y	3.3a needs clarification on question. Formatting needs correction throughout.
1/18/2023	Nursing P&P		
02/05/2024	P&T	Y	Title add: emergency contraception; Add 2.3 definition – Emergency Contraceptive; add 3.1 b- the use of alternative agent
5/20/2024	Policy Advisory Committee	N	
6/13/2024	MEC	N	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 690	Page 1 of 4
Title: Care of the Patient Receiving Endovascular Angiography of the Brain with or Without Intervention	**Effective Date:** 6/20/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 This policy applies to the Moreno Valley campus at the Riverside University Health System – Medical Center (RUHS – Medical Center).

1.2 To provide guidelines for care of the patient undergoing an endovascular angiography of the brain with or without intervention. These procedures include but are not limited to endovascular angiography, mechanical thrombectomy, aneurysm coiling, and artery embolization.

2. DEFINITIONS

2.1 **Cerebral angiography:** Defined as a minimally invasive diagnostic procedure where especially detailed images of brain vessels are obtained. The purpose is to explore the vascular anatomy of the brain and to assess for anomalies including but not limited to: vessel stenosis, occlusions, aneurysms & arteriovenous malformations.

2.2 **Mechanical Thrombectomy:** Defined as an interventional procedure to remove a blood clot (thrombus) from a blood vessel.

2.3 National Institute of Health Stroke Scale (NIHSS): Defined as a standardized method used by healthcare professionals to measure the level of impairment caused by stroke.

2.4 Closure/Compression devices: Defined as a commercial device deployed either internal or external to promote vascular hemostasis from a puncture site. The purpose of a closure or compression device is to achieve vascular hemostasis at the puncture site following a diagnostic and/or interventional angiography. Hemostasis may be obtained via manual compression as well.

a. Femoral approach

- Commercial internal vascular closure device examples i.e. Angioseal, Perclose, Mynx.
- Manual pressure with or without noninvasive hemostasis pads.
- Mechanical compression devices i.e. FemoStop.

3. COMPETENCY

3.1 Registered nurses who care for patients before and after endovascular angiography will complete training prior to working with neurointerventional cases.

3.2 NIHSS certification requirement for nurses caring for endovascular patients within the first 24 hours.

4. GUIDELINE

4.1 Written informed consent should be obtained prior to the procedure. Exceptions are considered when the patient has a serious life-threatening condition in order to prevent a delay in the delivery of care. This shall be determined on a case-by-case basis.

4.2 Pre-procedure verification of provider documentation in accordance with HW policy # 604.1 (Universal Protocol).

4.3 Intra-operative procedures in accordance with policy # 204 (Cardiac and Endovascular Suite Clinical Operations).

4.4 Endovascular access may be obtained via radial artery, femoral artery/vein, or both.

4.5 Patients undergoing an angiography of the brain with or without intervention are to be monitored after for complications including but not limited to: acute changes from neurological baseline, hematoma at the catheter puncture site, signs of arterial occlusion, hypotension, tachycardia, back pain or decreased urinary output concerning for retroperitoneal bleeding, diminished or absent pulses distal from the puncture site, and/or bleeding.

a. Any acute changes are to be reported immediately to the treating provider.

4.6 General and moderate sedation discharge criteria is to be met prior to handoff from the post-sedation recovery area by qualified personnel as outlined in policy #628 (Moderate and Deep Sedation/Analgesia) if applicable.

4.7 SBAR hand-off report is to be given to the receiving registered nurse (RN) by the Catheterization Lab RN or the Moderate Sedation RN. Report to include but not limited to: vital signs, baseline neurological assessment, location of puncture site included associated pulses, temperature, color and movement of the accessed limb, medications received, type of vascular closure device and documented time the procedure ended.

4.8 Patients that undergo complex intervention including but not limited to: mechanical thrombectomy, aneurysmal coiling, and artery embolization are to be monitored in the intensive care unit (ICU) until deemed stable by the neurointerventional provider.

4.9 Patients that undergo a routine angiography without complications may return to the unit of origin if the patients are able to be assessed and reassessed per written orders.

4.10 Education to patient and/or family on procedure and post procedure care as appropriate to be documented in the EMR.

5. MONITORING

5.1 A pre-procedure nursing assessment includes but is not limited to a NIH stroke scale score, a baseline neurovascular assessment of the patient’s extremities, vital signs, and neurological assessment.

5.2 Post-procedural monitoring guidelines are to begin **≤ 15 min** from documented completion of the endovascular procedure and/or sheath removal and should begin with the Catheterization Lab RN or the Moderate Sedation RN if applicable.

a. Blood pressure management post procedure at the direction of the interventionalist.

5.3 Routine and/or scheduled endovascular post-procedure monitoring includes vital signs, neurological status, neurovascular assessment of affected extremity, and puncture site assessments:

a. Every 15 min x 1 hour

b. Every 30 min x 1 hour

c. Every 1 hr x 2-4 hours (depending on provider orders)

d. Then per MD order.

e. Standard staffing ratios per unit apply unless specified by provider.

5.4 Patients that undergo mechanical thrombectomy for acute ischemic stroke or securement of a ruptured aneurysm should receive monitoring of vital signs, neurological status, neurovascular assessment of affected extremity, and puncture site assessments:

a. Every 15 min x 2 hour

b. Every 30 min x 6 hour

c. Every 1 hr x 16 hours

d. Then per MD order

e. National Institute of Health Stroke Scale (NIHSS) to be completed:

- Prior to procedure to obtain baseline
- At 2 hours and 8 hours post procedure, than q shift for 48 hours

f. Patients that undergo mechanical thrombectomy or securement of a ruptured aneurysm are to be monitored in the intensive care unit (ICU) for a minimum of 24 hours.

- These patients will have 1:1 nursing from the reported procedure end time for the first 8 hours.

5.5 Loss of hemostasis at the puncture site is emergent and requires immediate intervention by manual compression.

a. Pressure should be applied proximal to the puncture site by 1 to 2 centimeters (0.4 to 0.8 inches).

b. Maintain manual or mechanical pressure for a minimum of 10 minutes, check for hemostasis, and continue pressure if not achieved.

c. Compression should not occlude distal pulses.

d. Mechanical external compression devices may be used if applicable i.e. FemoStop.

6. ASSOCIATED POLICIES

6.1 HW 628 Moderate and Deep Sedation/Analgesia

6.2 HW 604.1 Universal Protocol

7. REFERENCES

7.1 Jadhav, A., Molyneaux, B., Hill, M., & Jovin, T. (2018). Care of the post-thrombectomy patient. *Stroke* 2018;49(11):2783-2785

7.2 Powers WJ, Rabinstein AA, Ackerson T, et al. Guidelines for the Early Management of Patients With Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke* 2019;50:e344-e418.

7.3 Rodgers, Mary et al. Care of the Patient with Acute Ischemic Stroke (Endovascular/Intensive Care Unit-Postinterventional Therapy): Update to 2009 Comprehensive Nursing Care Scientific Statement: A Scientific Statement From the American Heart Association. (2021)

Document History:

Prior Release Dates: New		**Retire Date:** N/A	
Owner: Stroke Coordinator		N/A	
2/1/2024	Pre-Nursing P&P	Yes	3.1, section 4, section 5 – Multiple recommendations. Collaborate with reviewers prior to NPP.
2/15/2024	Nursing Policy and Procedure	No	
5/20/2024	PAC	No	
6/13/2024	MEC	No	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
Housewide

	Document No: 852	Page 1 of 9
Title: Medication Preparation and Administration	**Effective Date:** 6/20/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/Hospital Director		☒ **Policy** ☐ **Procedure** ☐ **Guideline**

1. POLICY

1.1 Medications shall be prepared and administered by persons authorized by, and within the guidelines of, the respective licensing agencies of the State of California. These include:

a. Staff Physicians, Dentists, Medical Students, and Resident Physicians according to the Medical Staff bylaws and privileging.

b. Registered Nurses

c. Licensed Vocational Nurses

d. Respiratory Care Practitioners

e. Students under direct supervision of licensed personnels

f. Licensed Practitioners

g. Radiology technologists

h. Physical, Occupational and Speech Therapists

i. Nuclear Medicine Technologists

j. Diagnostic Sonographer

k. Pharmacists

1.2 Medications shall be administered in accordance with applicable laws and regulations, including Medical Staff rules and regulations.

1.3 Personnel administering medications shall have demonstrated competency or training by scope and licensure.

1.4 Before administering a medication staff shall:

a. Verify right patient: the patient's identity in accordance with hospital policy

b. Verify right medication: the correct medication, to ensure that the medication being given to the patient matches that prescribed for the patient and that the patient does not have a documented allergy to it, and no contraindications

c. Verify right dose: the correct dose, to ensure that the dosage and dosage form of the medication matches the prescribed dose

d. Verify right route: the correct route, to ensure that the method of administration is the appropriate one for that particular medication and patient

e. Verify right time: the appropriate time, to ensure adherence to the prescribed frequency and time of administration

f. Verify that the medication does not appear to be adulterated based on visual exam for particulates or discoloration and that the medication has not expired or passed the beyond use date.

2. DEFINITIONS

2.1 Scheduled Medication. Medications administered according to a standard, repeated cycle of frequency: e.g., every 4 hours, 4 times/day, twice daily, daily, weekly, monthly.

2.2 Non-scheduled Medication. Medication that may not have been ordered and given previously, and does not fall into the defined times of standard medication administration. May include Stat, Now, and One-Time medications.

2.3 Time Critical. Medications for which early or delayed administration of greater than 30 minutes before or after the scheduled dose time (for a total window of one (1) hour) may cause harm or result in substantial sub-optimal therapy or pharmacological effect. It is possible for a given medication to be time-critical for some patients, due to diagnosis, clinical situation, various risk factors or therapeutic intent, but not time critical for other patients. Any questions regarding whether a medication is time critical must be directed to the prescriber or the pharmacist for clarification.

2.4 Non-time Critical. Medications for which early or delayed administration within a range of 1-2 hours before or after scheduled medication administration time (for a total window of 2 – 4 hours) does not significantly change the medication's therapeutic effect or otherwise cause harm.

2.5 STAT Medication. Medication with emergent need, may be lifesaving or prevent deterioration. Should be administered within 15 minutes of the order. Order is considered one time.

2.6 Now Medication / One-Time. Medication with urgent need, for example: first dose antimicrobials, loading doses, some antidotes. Should be administered within 60 minutes of the order. Order is considered one time.

2.7 PRN. Latin term that stands for "pro re nata," which means as (the thing) is needed. In the context of this policy means medication administered as needed for a specified condition or presentation.

2.8 MAR / eMAR. Medication administration record, either electronic or paper.

2.9 CPOE. Computerized Physician/Prescriber Order Entry.

2.10 Automated Dispensing Cabinet (ADC). Medication cabinet that dispenses medications in patient care areas based upon patient medication profiles. Also known as a medstation.

2.11 Independent Double Check (IDC). An independent double check requires two licensed staff to *separately* check (alone and apart from each other) each component of prescribing, dispensing and verifying the high-alert medication before administering it to the patient.

2.12 Witness. Independent second person to observe, or see a process or event.

2.13 Plain IV Maintenance Fluid.
Maintenance IV fluid bag should be changed every 24 hours. At 24 hours of hanging, the current IV fluid bag should be discarded, and a new bag started regardless of fluid volume remaining.

2.14 Smart Infusion Pump. A programmable infusion device used to control the administration of drugs, fluids, or blood products by establishing standard concentrations, dose limits, and clinical advisories to reduce medication administration errors.

3. GUIDELINES

3.1 Medication Administration

a. Discuss unresolved concerns about the medication with the patient's physician, prescriber, and/or relevant staff, e.g. high dose, missed or refused doses, change in patient condition

- Do not administer medication until concerns are resolved

b. Utilize MAR to review medication orders and timing

c. Utilize barcode scanning to scan both the patient and the medication. Scanning both patient and medication enable a safety check for the right patient, medication, dose, and timing

d. Perform Independent Double Checks for medications specified in policy for high-risk mitigation

e. Intravenous medications, solutions for infusion shall be administered via smart infusion pump. *Exception*: perioperative area may utilize manual flow regulator for maintenance fluid only.

f. At the time of medication administration, the licensed / authorized staff shall:

- Verify two patient identifiers and allergies immediately prior to administration
- Scan the patient's bracelet, bearing the barcode. If unable to scan, obtain new patient bracelet and re-verify two patient identifiers.
- Educate the patient, or if appropriate the patient's representative, about all new medications and indications including potential side effects and document the same

3.2 Medication Preparation

a. Medications may be prepared on designated surfaces, including on the medication room counter, cart or movable table, other counter or flat surface with adequate space to safely prepare medication

b. Designated preparation surfaces shall be cleaned with alcohol or bleach wipe

c. Prepare medication for one patient at a time

d. Prepare medications immediately prior to administration

e. When water is the required diluent for enteral medication mixing, the source must be purified. Sterile water is readily available and may be used for non-sterile medication preparation and exceeds the purification standard.

- Sterile water for oral use is preferred and may be used and then discarded in accordance with the package label, e.g. Enfamil Water for oral use
- Sterile water for irrigation for enteral use may be used and will be assigned an expiration date of not more than 24 hours and must be dated and timed when opened.

f. Sterile water for irrigation that has been opened and used for medication preparation may not be used for sterile indications; a new, unopened bottle must be obtained for sterile use

3.3 Monitoring

a. Monitor patients for the therapeutically intended benefits of medication therapy and any adverse effects

b. Document patient response to medication based on patient clinical needs

c. Communicate concerns regarding medication intended outcome, including perceived ineffectiveness, possible side effects and/or adverse reactions to the prescriber within a reasonable amount of time. Document communication.

3.4 Timing of Medication Administration

a. Non-time-critical, scheduled medications prescribed:

- Daily, weekly, or monthly may be administered 2 hours before or after the scheduled dosing time, for a total window that does not exceed 4 hours.
- More frequently than daily but no more than every 4 hours may be administered within 1 hour before or after the scheduled dosing time, for a total window that does not exceed 2 hours.

b. Time-critical, scheduled medications should be administered within 30 minutes before or after the scheduled time. Examples may include, but are not limited to:

- Medications with a dosing schedule more frequent than every 4 hours
- Scheduled (not prn) pain medications (non-IV) used for chronic pain or palliative care (fluctuations in the dosing interval may result in unnecessary break-through pain)
- Immunosuppressive agents used for the prevention of solid-organ transplant rejection or to treat myasthenia gravis, e.g. tacrolimus
- Antimicrobials where a trough or therapeutic drug level is needed to target dosing, e.g. vancomycin, aminoglycosides
- Heparin, IV route, for therapeutic or treatment intervention
- Anticonvulsants
  i. Phenytoin (Dilantin) via gastric /PEG tube: When given in patients who are receiving enteral tube feedings, hold tube feedings for one hour before and one hour after phenytoin is administered to allow for optimal absorption.

c. Medications that must be administered apart from other medications for optimal therapeutic effect, e.g. antacids and oral fluoroquinolones

- Medications prescribed
  for administration within a specified period of time of the medication order
- Chemotherapeutic agents

d. Medications that require administration within a specified period of time before, after, or with meals:

- Rapid-, or short acting insulins EXCEPTIONS: Prandial (meal time) insulin will not be given more than 15 minutes before the meal is served, and may be given up to 1 hour after the meal is served, regardless of the scheduled time. Intermediate, and long-acting insulins are considered Non-time-critical
- Oral Insulin secretagogue antidiabetic agents: sulfonylureas (glimepiride), meglitinides (nateglinide)
- Oral bisphosphonates: e.g. alendronate
- Oral levothyroxine
- Pancrelipase.
- Non-scheduled medications

e. STAT medication should be given as soon as available

- The prescriber may place STAT orders directly via CPOE system and notate as “STAT”
- A verbal order may be made for a STAT medication in accordance with policy

f. First time doses, and loading doses are given:

- Now / One-Time: within 60 minutes from the time the order is written or
- Non-time critical: according to the Standard Times for Medication Administration

g. On-call doses are to be given to a surgical patient at a specified amount of time before incision or pre-procedure sedation

h. PRN medication doses are given as specified by written indications and parameters no sooner than within 15 minutes of the prescribed frequency. If a dose is needed sooner the physician must be contacted for additional orders.

i. Specifically timed, time sequenced, and administration of multiple medication doses are given as close to time due as possible, and should be given within 30 minutes of time due when applicable, including:

- Drug desensitization protocols
- Chemotherapy, rescue agents, n-acetylcysteine, and iodinated contrast media
- Drugs requiring monitoring of therapeutic levels to ensure accurate peak/trough/serum levels, e.g. antimicrobials, warfarin administered at 1700 daily

- Investigational drugs

j. Missed Medications

- If the scheduled dose is missed, the medication should be given as soon as possible unless it falls within the time range for the next dose. See Appendix 1. Standard Medication Administration Time.
    - Future doses should be re-timed, from the time the late/missed dose was given at the same frequency
- If the current time falls in between the bold lines (time range) on the Standard Medication Administration, you may give the late/missed dose and then the next regularly scheduled dose would be given at the regular time.
- If the late/missed dose falls outside the bold lines (time range) for that scheduled time, omit the dose, and give the next regularly scheduled dose.
- If the late/missed dose is for a "time critical" or medication that has a narrow therapeutic index, the physician or pharmacist must be consulted regarding timing of subsequent dosing.
- The staff must document the reason for the missed dose, and may use their clinical judgment, based on patient presentation and assessment when to immediately report the omission or missed dose:
- Immediate reporting applies to missed time critical medications that may cause a subclinical response or outcome
- Missed non-time critical medication doses do not require immediate reporting to the physician, and can be reported at the next reasonable opportunity, e.g. if an analgesic dose is missed during the night shift, it can be reported during the morning shift.

3.5 Controlled Substances

a. All controlled substance wastage MUST be witnessed by a second licensed nurse at the time the medication is prepared.

b. Documentation of wastage shall be in the ADC by both nurses, or authorized licensed staff

c. Witnessing should be visual and documented.

3.6 Documentation on/in Medication Administration Record

a. The action of barcode scanning prior to administering medications creates the documentation in the health record

b. Documentation elements include:

- Name, dosage date and time of administration of medications and treatment.
- Route of administration and site of injection shall be recorded if other than by oral administration
- If infusion, the time the infusion is stopped or completed

c. As pertinent, additional documentation should include:

- The reason for administration of doses outside of the scheduled timeframe

- Any dose refused by the patient or not given
- Education provided
- Specific parameters related to administration, including PRN medications, ex. Blood pressure, blood sugar, pain level
- Suspected adverse drug reactions
  i. Symptoms
  ii. Name of practitioner notified
  iii. Actions taken
  iv. Antidotes given
  v. Patient response

4. ATTACHMENTS:

4.1 Appendix 1. Standard Medication Administration Times

5. REFERENCES:

5.1 CMS Conditions of Participation 482.23 Nursing Services.
5.2 CMS Conditions of Participation 482.25: Pharmaceutical Services
5.3 Comprehensive Accreditation Manual of The Joint Commission MM.06.01.01
5.4 Title 22, Division 5, Chapter 1, Article 7, §70749. Patient Health Record Content
5.5 HW Policy 804 High-Alert Medications
5.6 USP <795> Pharmaceutical Compounding – nonsterile preparations

Document History:

Release Dates: 1/2014, 11/2013, 9/2013, 6/2013, 2/2013, 7/12, 3/09, 5/4/16, 08/12/19, 7/20/2023	**Retire Date:**		
Document Owner: Director of Nursing - 2500	**Replaces Policy:** Nursing 711		
Date Reviewed	**Reviewed By:**	**Revisions Made?**	**Revision Description**
08/2023	Nursing & Pharmacy work group	Y	Updated policy to address current workflow and use of the electronic health record. Removed non-existent practices. Added section 3.2 medication preparation.
1/18/2024	Nursing Policy & Procedure Committee	No	
2/5/2024	P&T	No	
5/7/2024	PAC	Yes	Updated policy in accordance to regulatory bodies under 3.2 with defined areas of use and expiration date for enteral use.
6/13/2024	MEC	No	

Appendix 1. Standard Medication Administration Times

Schedule	Standard Administration Time
BEFORE BREAKFAST	***600***
0000 0100 0200 |0300 0400 0500 **0600** 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300	
WITH BREAKFAST	***800***
0000 0100 0200 |0300 0400 0500 0600 0700 0800 **0900** 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300	
Daily	***900***
0000 0100 0200 |0300 0400 0500 0600 0700 0800 **0900** 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300	
WARFARIN DAILY	***1700***
0000 0100 0200 |0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 **1700** 1800 1900 2000 2100 2200 2300	
Q12H or BID	***0900 and 2100***
0000 0100 0200 0300 0400 |0500 0600 0700 0800 **0900** 1000 1100 1200 1300 1400 1500 1600 |1700 1800 1900 2000 **2100** 2200 2300	
Q8H	***0600, 1400, 2200***
0000 0100 |0200 0300 0400 0500 **0600** 0700 0800 0900 1000 1100 |1200 1300 **1400** 1500 1600 1700 |1800 1900 2000 2100 **2200** 2300	
Q6H	***0600, 1200, 1800, 0000***
0000 0100 0200 0300 |0400 0500 **0600** 0700 0800 0900 |1000 1100 **1200** 1300 1400 1500 |1600 1700 **1800** 1900 2000 2100 |2200 2300	
Q4H	***0100, 0500, 0900, 1300, 1700, 2100***
0000 **0100** 0200 |0300 0400 **0500** 0600 |0700 0800 **0900** 1000 |1100 1200 **1300** 1400 |1500 1600 **1700** 1800 |1900 2000 **2100** 2200 |2300	
Q3H	***0200, 0500, 0800, 1100, 1400, 1700, 2000, 2300***
0000 |0100 **0200** 0300 |0400 **0500** 0600 |0700 **0800** 0900 |1000 **1100** 1200 |1300 **1400** 1500 |1600 **1700** 1800 |1900 **2000** 2100 |2200 **2300**	
Q2H	***0200, 0400, 0600, 0800, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 0000***
0000 0100 **0200** 0300 **0400** 0500 **0600** 0700 **0800** 0900 **1000** 1100 **1200** 1300 **1400** 1500 **1600** 1700 **1800** 1900 **2000** 2100 **2200** 2300	
BID AC	***0700, 1700***
0000 0100 0200 0300 0400 0500 0600 0700 0800 **0900** 1000 1100 1200 1300 |1400 1500 1600 **1700** 1800 1900 2000 2100 2200 2300|	
BID PC	***0900, 1800***
0000 0100 0200 0300 0400 0500 0600 0700 0800 **0900** 1000 1100 1200 1300 |1400 1500 1600 1700 **1800** 1900 2000 2100 2200 2300|	
TID	***0900, 1500, 2100***

0000 0100 |0200 0300 0400 0500 0600 0700 0800 **0900** 1000 1100 |1200 1300 1400 **1500** 1600 1700 1800 |1900 2000 **2100** 2200 2300	
TID AC	***0800, 1200, 1700***
0000 0100 0200 0300 0400 0500 | 0600 **0700** 0800 0900 1000 | **1100** 1200 1300 1400 | 1500 **1600** 1700 1800 1900 2000 2100 2200 2300	
TID with meals	***0800, 1300, 1700***
0000 0100 |0200 0300 0400 0500 0600 0700 **0800** 0900 1000 |1100 1200 **1300** 1400 1500 |1600 **1700** 1800 1900 2000 2100 2200 2300	
TID PC & HS	***0900, 1300, 1800, 2100***
0000 0100 0200 0300 0400 0500 | 0600 0700 0800 **0900** 1000 | 1100 1200 **1300** 1400 | 1500 1600 1700 **1800** 1900 | 2000 **2100** 2200 2300	
4 TIMES A DAY	***0900, 1300, 1700, 2100***
0000 0100 0200 |0300 0400 0500 0600 0700 0800 **0900** 1000 |1100 1200 **1300** 1400 |1500 1600 **1700** 1800 |1900 2000 **2100** 2200 2300	
5 TIMES A DAY	***0900, 1200, 1500, 1800, 2100***
0000 0100 0200 0300 0400 0500 0600 0700 | 0800 **0900** 1000|1100 **1200** 1300 |1400 **1500** 1600 | 1700 **1800** 1900 | 2000 **2100** 2200 | 2300	
HS	***2100***
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RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER

Housewide

	Document No: 865	Page 1 of 7
Title: Hazardous Drug Spill Deactivation and Waste Management	**Effective Date:** 2/15/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By: Jennifer Cruikshank CEO/ Hospital Director		☒ **Policy** ☒ **Procedure** ☐ **Guideline**

1. DEFINITIONS

1.1 Class II Biological Safety Cabinet (BSC): a ventilated cabinet with an open front and inward and downward unidirectional HEPA-filtered airflow and HEPA-filtered exhaust. The BSC is designed to provide worker protection from exposure to airborne drugs and to provide an ISO Class 5 or better environment for preparing CSPs.

1.2 Hazardous Drugs (HDs): Hazardous drugs include those used for cancer chemotherapy, antiviral drugs, hormones, some bioengineered drugs, and other miscellaneous drugs. Drugs considered hazardous include those that exhibit one or more of the following six characteristics in humans or animals:

a. Carcinogenicity

b. Teratogenicity or other developmental toxicity

c. Reproductive toxicity

d. Organ toxicity at low doses

e. Genotoxicity

f. Structure and toxicity profiles of new drugs that mimic existing drugs determined hazardous by the above criteria

1.3 Primary Engineering Control (PEC): A device or zone that provides an ISO Class 5 environment for sterile compounding.

1.4 Personal protective equipment (PPE): Items such as gloves, gowns, respirators, goggles, faceshields, and others that protect individual workers from hazardous physical or chemical exposures.

1.5 National Institute of Occupational Safety and Health (NIOSH): NIOSH is the main US federal agency responsible for conducting research into occupational safety and health matters. It is part of the U.S. Centers for Disease Control and Prevention, in the U.S. Department of Health and Human Services.

1.6 High efficiency particulate air (HEPA) filter: A HEPA filter is a type of mechanical air filter. It works by forcing air through a fine mesh that traps harmful particles such as pollen, pet dander, dust mites, and tobacco smoke.

1.7 Compounded sterile preparations (CSPs): are sterile pharmaceuticals that have been prepared by a pharmacist, or under the supervision of a pharmacist.

2. POLICY

2.1 Since safe levels of exposure to HDs cannot be determined and no reliable methods of monitoring exposure exist, it is imperative that the work practice controls established to minimize exposure of employees and other environment be established and strictly adhered to by all staff.

2.2 Persons who handle HDs must have access to spill kits and be trained on spill management and use of PPE and NIOSH-certified respirator. Spill management must be part of an institution-wide safety program and developed in conjunction with other departments and disciplines.

2.3 The areas used to compound HDs must be decontaminated by chemical deactivation of the HDs prior to cleaning and disinfection.

2.4 This policy is strictly limited to the generic waste management provisions of those drugs designated as hazardous by the National Institute of Occupational Safety and Health (NIOSH). Though these substances will be handled and managed was RCRA (RCRA means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901) waste, there are other substances that require special handling and disposal that are not the subject of this policy.

2.5 Local, state and federal guidelines have been established relative to the management of hazardous drugs; employee safety and the right to know; regulated waste management and transport and related topics and pharmacies must establish policies per individual local and state requirements. Policy and procedure must be established related to all Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and Department of Transportation (DOT) requirements.

2.6 Safety Data Sheet (SDS) for all HDs shall be maintained by the Safety Department.

3. PROCEDURES

3.1 **Cleaning and Decontamination of PEC**

a. When working with HDs, the ISO Class 5 environment of the PEC must first be decontaminated prior to being cleaned.

b. The SDS for each HD will specify chemical agents that can be used to deactivate them, however many are deactivated by simple sodium hypochlorite solution. Sterile 70% Isopropyl Alcohol (IPA) does not deactivate HDs therefore cleaning with IPA serves only to spread existing HD contamination.

c. The following factors must be considered relative to decisions about how to decontaminate and clean PECs used for HD compounding:

- Use pre-moistened wipes for cleaning. Any cleaning tools and containers must be surface cleaned with 70% sterile IPA prior to being introduced into an ISO Class 5 area.

- Consideration must be given to the size of the PEC, containers and packages must not interfere with the unidirectional airflow or disrupt the first air in the critical area where HD compounding is to take place.

- Any decontaminating or cleaning agent used inside of a PEC that must be mixed with water should be mixed with sterile water for irrigation.
- Decontamination and cleaning of the surfaces under the work tray must also be accomplished.

d. Decontamination is performed regularly between batches/patient-specific compounding; before daily cleaning and in the event of a spill.

e. Decontamination will only occur when compounding is not taking place.

f. Person performing decontamination will be fully garbed per Hazardous Drug Compounding Techniques including gowns, head, hair, shoe covers, two pairs of chemotherapy gloves and NIOSH-certified respirators (N-95 or N-100).

g. An appropriate full-facepiece, chemical cartridge-type respirator or powered air-purifying respirator (PAPR) should be worn when there is a risk of respiratory exposure to HDs, including when attending to HD spills larger than what can be contained with a spill kit or when cleaning underneath the work surface of the CACI.

3.2 **HD Spill Management**

a. All personnel handling/administering HD's must be trained on the cleaning of HD spills, including the use of PPE and NIOSH-Certified respirators (N-95 or N-100).

b. Spill kits will be kept in areas where HD are handled such as inventory receiving area; inventory storage area; compounding room; carts used for HD transport and nursing units where antineoplastic HDs are administered.

c. Each department is responsible to maintain two spill kits in their department, when a spill kit gets used it will be the department's responsibility to order a replacement through a County authorized vendor.

d. Spills must be contained and cleaned immediately by all qualified personnel with appropriate PPE.

e. Call EVS and ask for secondary cleanup of hazardous spill that has been contained and picked up

f. Call EVS and ask for assistance for a hazardous spill if not contained with one spill kit

g. Signs must be available for restricting access to the spill area.

h. All spills materials must be disposed of as hazardous waste.

i. Information related to care of persons with direct eye and skin contact to HDs as a result of a spill is contained in policy Hazardous Drug Employee Training and Safety Program.

3.3 **Spills occurring inside of PEC (BSC):**

a. Always leave the PEC on; do not turn it off,

b. Opening the C-PEC

- If the entire spill can be cleaned properly without opening the front sash of the BSC, that is acceptable as long as the spill has not penetrated the deck.
- If the C-PEC will be opened, the worker will first don the full face respirator.

- The C-PEC will not be opened until the spill has been maximally contained and cleaned to the extent possible with the C-PEC closed.

c. Wipe the contents of the spill kit package with sterile 70% IPA and use technique appropriate to the C-PEC being used to transfer the spill kit into the ISO Class 5 compounding area.

d. If the HD is a liquid, place an absorbent towel gently on top of the liquid to prevent splashing of HD liquid.

e. If HD is a solid or powder, cover and wipe with a low-lint wipe that has been moistened with sterile water for irrigation.

f. Place saturated/contaminated wipes into hazardous waste bag contained in spill kit.

g. Clean up any broken glass fragments and place into the rigid container in the spill kit

h. Place any contaminated non-sharps supplies into the hazardous waste bag contained in the spill kit which will be deposited into a RCRA container.

i. Once the visually evident spill has been contained, wipe the area thoroughly with a low-lint wipe moistened with sterile water for irrigation from the areas of lesser concentration to the areas of highest concentration of HD.

j. Then follow by decontaminating the area with the designated agent.

k. Once the spill has been contained are decontaminated, then entire C-PEC must be surface decontaminated, then cleaned with germicidal detergent (or sporicidal) and then disinfected with sterile 70% IPA.

l. If an HD is spilled into the intake perforations of the C-PEC, remove the work surface according to the manufacturer's directions and thoroughly clean the drain pan in the proper manner, discarding all cloths and other materials used in the cleaning process into the waste bag provided in the spill kit.

m. Once the spill has been cleaned, remove PPE.

n. Any wipes used for the macro decontamination along with the spill itself must be disposed in a black RCRA container. All other supplies and PPE may be disposed in the trace yellow receptacles.

o. If the HEPA filter of the C-PEC is contaminated with HD

- Turn the C-PEC off
- Post a sign on the C-PEC that says "Do Not Use-Contaminated with Hazardous Drug" and take this C-PEC out of use in compounding.
- Personnel changing the HEPA filter must be informed that the HEPA filter may be contaminated with HD. They must also be properly garbed and wear a NIOSH-certified respirator and eye protection during the procedure. Respirator cartridges must be disposed of as hazardous waste.
- The HEPA filter must be changed as soon as possible according to the manufacturer's instructions.
- The filter must be disposed of in the appropriate hazardous waste container.

3.4 **Spill occurring outside of a PEC including patient care areas**

a. Clear area of visitors and unnecessary staff to prevent exposure to spilled chemotherapy. Notify the chemotherapy certified RN of the spill where patient is receiving treatment.

b. Isolate the area of the spill to reduce the risk of exposure to additional personnel.

c. Obtain a spill kit.

d. Immediately post sign from spill kit to warn others of the presence of hazardous spill.

e. Put on one pair of chemo gloves, disposable chemo gown, second pair of gloves over cuff of gown, shoe covers, and safety glasses. Note: If the patient or the nurse is allergic to latex, use chemotherapy approved, non-latex gloves.

f. Don a NIOSH-certified respiratory protection if there is a risk of respiratory exposure to HDs (e.g. HD spills larger than what can be contained with a spill kit or suspected airborne exposure to power or vapors)

g. Respiratory cartridges used during spill cleanup must be disposed of in hazardous waste.

h. If the spill is liquid, place absorbent towels on top of spill gently to prevent splashing of HD.

i. If the spill is a solid, place absorbent towels wetted with water on top of the spill.

j. Use the absorbent towels to contain the spill and carefully place the contaminated towels in the HD waste bag provided in the spill kit.

k. Clean up any broken glass fragments using utility gloves (placed over double chemotherapy gloves) and place into designated sharps container along with any contaminated sharps.

l. Place any contaminated non-sharps supplies into the hazardous waste bag contained in the spill kit.

m. Once the visible spill has been visibly removed, use absorbent towels wetted with bleach solution to clean the affected area. Allow the bleach to dry.

n. Clean the area with the designated disinfectant solution.

o. Place pads, towels, and all contaminated materials (sheets or gowns) into leak proof waste bag. Place glass fragments in a hard sided chemo bin. Seal the bag and place inside another bag. Both bags appropriately labeled as hazardous waste. Leave outer bag open for now.

p. Once the spill has been cleaned, remove PPE per policy Hazardous Drug Compounding Techniques and discard as hazardous waste.

q. Seal the outer chemo waste disposal bag and place it in a puncture proof container chemotherapy container

r. Any linens contaminated with chemotherapy shall be disposed of as chemotherapy waste in the yellow bins.

s. Notify oncologist of the type and amount of chemotherapy spilled and how much patient actually received of that chemotherapy.

3.5 **For any spill with patient exposure to chemotherapy**

a. For eye exposure, immediately rinse eye thoroughly with running water at sink or eye wash station if nearby

b. For skin exposure, wear PPE and remove contaminated clothing in chemotherapy bag provided in spill kit. Place bag in yellow chemotherapy waste bin. Cleanse the patient's skin with soap and water, rinse with water, and repeat this process again.

3.6 **For any staff member exposed to spill**

a. For eye exposure, immediately rinse eye thoroughly with running water at sink or eye wash station if nearby.

b. Notify supervisor and follow employee work injury process.

3.7 **Documentation of Spills**

a. Spills and spill cleanup must be documented via the online incident reporting system.

3.8 **Disposal of HD Waste**

a. All items used in the preparation of hazardous drugs are considered contaminated and should be discarded in the appropriate waste container and further disposed of per local, state and federal regulations.

b. Discard all supplies used to make and administer chemotherapy medications (tubing, empty bags, bottles, vials, syringes, gloves, pads, masks, gowns, wipes, etc.) in the Chemo waste.

c. Outer gloves are to be considered contaminated. When removing/changing the outer gloves, they are to be placed into the Chemo waste.

d. The inner glove stays in place once the contaminated outer gloves are removed. The inner gloves are used to affix labels and place the CSP/s into a sealable containment bag which is used during transport.

e. Discard PPE and wash hands before leaving the preparation area. Gloves and gowns should not be worn outside the drug preparation area.

f. Documentation of waste generation and disposal will be completed in accordance with applicable local, state and federal guidelines.

g. Needles, syringes, and breakable items used to compound HDs will be handled in the same manner as those contaminated by blood or other potentially infectious materials, should be disposed in chemo sharp container.

h. HD waste must be kept inside covered waste containers clearly labeled as "Hazardous Drug Waste Only".

i. Bags are never acceptable as final waste storage containers, they are may only be used as a transport mechanism for non-sharps contaminated waste until it is disposed of a in a rigid container designated for hazardous waste.

j. At least one such receptacle will be located in each area where HDs are handled.

k. HD waste containers are moved from their location to the designated HD storage area by staff that has been trained in these procedures.

l. When containers are full, they will be sealed and dated.

m. HD waste waiting for removal by a waste hauler properly certified and licensed to remove HD waste must be kept in a secure and segregated area in sealed, labeled drugs with plastic liners to which only authorized personnel are admitted.

4. REFERENCES

4.1 The United States Pharmacopeial Convention (USPC). Chapter <800>: Hazardous Drugs—Handling in Healthcare Settings. In: The United States Pharmacopeia, 39th rev., and The National Formulary, 34th ed. First supplement. Rockville, MD: USPC; 2016

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Date Reviewed	Reviewed By:	Revisions Made?	Revision Description
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2/5/24	P&T	No	
2/6/2024	PAC	No	
2/8/2024	MEC	No	

RIVERSIDE UNIVERSITY HEALTH SYSTEM – Medical Center
Housewide

	Document No: 886	Page 1 of 3
Title: Intranasal Medication Administration via Mucosal Atomization Device	**Effective Date:** 6/20/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/ Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 To provide guidelines for the safe and effective administration of intranasal (IN) medication via a mucosal atomization device to all patients at Riverside University Health Systems-Medical Center and Arlington Campus.

2. BACKGROUND

2.1 The intranasal route provides rapid delivery of emergency medications where other routes may be difficult or time-consuming, reduces administration time, needle anxiety, needle stick injuries, anxiety related to radiologic diagnostic studies, and increases patient satisfaction.

2.2 Medication delivered IN are rapidly absorbed through the capillary network and delivered to the systemic circulation.

3. DEFINITIONS

3.1 Intranasal (IN): Intranasal medication delivery offers an alternative method of drug delivery that avoids first pass metabolism by delivering a fine mist of the medication that is quickly and efficiently absorbed by the nasal mucosa.

3.2 Mucosal Atomizer Device (MAD): a device that attaches by Luer lock to a one-milliliter (mL) syringe to instill a mist of medication into the nasal cavity, improving absorption to the intranasal surface area.

4. GUIDELINES

4.1 The IN route may be utilized when intravenous route is not readily available, or is unnecessary

4.2 For a list of medications: See Appendix 1

4.3 Equipment needed and administration instructions: *Refer to Elsevier Clinical Skills: Medication Administration: Intranasal medication*

a. an additional 0.1 mL of overfill will be drawn up for the “dead-space” volume occupied by the MAD

4.4 Patient Monitoring: See Appendix 1

a. Note: some patients will become moderately sedated despite the intended level of minimal sedation; should this occur, then the guidelines for moderate sedation apply.

b. Nurses should be prepared to start an IV in the event of an emergency.

4.5 Considerations

a. All intranasal medications require the appropriate use of the MAD for administration into the nostrils.

b. Concentrated drug products are preferred to minimize administration volume

- Administer half of the dose into each nostril.
    - Neonate/infant, not to exceed 0.2 mL per nostril
    - < 10 years old, not to exceed 0.5 mL per nostril
    - ≥ 10 years old, not to exceed 1 mL per nostril
- Doses requiring more than 1 mL require delivery in divided doses, allowing a few minutes for absorption between doses.
- Consider alternative method of delivery (i.e. intravenous), if volume is too large

c. Avoid blowing nose post administration

4.6 Contraindications to intranasal medication administration

a. Abnormal neurological exam

b. Developmental delay

c. Allergy or sensitivity to the medication being administered

d. Epistaxis

e. Facial trauma

f. Medical conditions that affect ciliary function (e.g. cystic fibrosis)

g. Nasal obstruction (e.g. nasal polyps, significant facial trauma, septal abnormalities, excessive mucus or blood)

h. Rhinitis

i. Recent use of nasal vasoconstrictors (e.g. cocaine, oxymetazoline, phenylephrine)

5. REFERENCES

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6. ATTACHMENTS

6.1 Appendix 1 - Intranasal medication and dose administration.

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Document Owner: Pharmacy	**Replaces Policy:** N/A

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12/12/23	PRC revisions	Yes	Added Dexmedetomidine and Ketamine, added PACU, updated Appendix 1 and added Appendix 2
2/1/2024	Pre-Nursing P&P	Yes	Refine the age group and the appendix to be added for review at NPP
02/15/2024	Nursing P&P Committee	No	
3/3/2024	P&T	No	
5/17/2024	PAC	No	
6/13/2024	MEC	No	

Additional Administration Information: If using a mucosal atomization device (MAD), when drawing up the dose into the syringe, add 0.1 mL additional medication to account for dead space* in the device. To maximize mucosal absorptive surface area, administer half of the dose into each nostril. If the dose is greater than the maximum volume per nostril, or additional intranasal medications ordered, consider administering in separate applications 5-10 minutes apart to allow the previous dose maximal time for absorption. RN to review Elsevier Clinical Skills: Medication Administration: Intranasal medication for administration instructions	NOTE: THIS GUIDELINE SHOULD NOT REPLACE CLINICAL JUDGEMENT This reference serves as an abridged guideline for the administration of intranasal medications for pediatric and adult patients. Consult references for detailed information, including specific BOXED WARNING, dosing, compatibility, stability and other information. The potential for an adverse outcome may be increased if 2 or more sedating medications are administered.

Intranasal medication for administration instructions

Adminstration: Briskly administer 1/2 the dose into each nostril with MAX while in a recumbent position. **For Neonates:** removal of cone tip may provide better fit. If the volume of the dose is greater than 0.3 mL for neonate, administer 1/2 dose in each nostril.

Administer Using Mucosal Atomization Device	
Age	**Maximum Volume**
Neonate/Infant	0.2 mL per nostril
<10 years	0.5 mL per nostril
≥10 years and adults	1 mL per nostril

Drug	NICU	PICU	ED	Rad	ACCU	2500	PACU	LD	non-Tele	ITF/ETS	Concentration	Usual Adult Dose [adult max]	Usual Pediatric Dose [ped max dose]	Nursing/Provider Considerations
dexmedeTOMidine			nasal				nasal				100 mcg/mL**	1 mcg/kg [max: 200 mc	**Procedural Sedation:** 6 mo-18 yrs: Sedation, pre-anesthetic: 1-2 mcg/kg Procedural sedation: 2-3 mcg/kg [max: 200 mcg]	Give 30-45 mins before procedure. Onset: 10-20 min Duration: 1-3 hrs **Monitoring** -vital signs (HR, BP, RR) Avoid use in patients with cardiovascular disease (i.e: cardiac conduction abnormalities, heart block, bradycardia, severe ventricular dysfunction, hypovolemia, hypotension, or chronic hypertension). **May administer undiluted (100 mcg/mL) or dilute in NS for patients when final volume to be administered is less than 0.2 mL per nostril (eg, 100 mcg/1mL to a total volume of 2 mL = 50 mcg/mL).

Drug	NICU	PICU	ED	Rad	ACCU	2500	PACU	LD	non-Tele	ITF/ETS	Concentration	Usual Adult Dose [adult max]	Usual Pediatric Dose [ped max dose]	Nursing/Provider Considerations
fentaNYL	nasal	nasal	nasal	---	---	---	nasal	---	---	---	50 mcg/mL 10 mcg/mL (NICU)	Usual: 1 mcg/kg [50 mcg] Redose: 0.5 mcg/kg Q5 min Max: 3 mcg/kg cumulative [max: 100 mcg]	Neonates: Dose: 1 – 2 mcg/kg Redose: May repeat in 5 min with maximum of 2 doses/procedure NICU Palliative Care protocol has 1 mcg/kg followed by 0.5 mcg/kg q5 min PRN to max total dose of 3 mcg/kg; additional doses require new MD orders Pediatrics: Patients weighing ≥10 kg: 1.5 -2 mcg/kg [max: 100 mcg] **Indications** -Procedural pain and sedation -Neonatal palliative/comfort care	Give 15 minutes before procedure; Onset: 5 min Duration: 60 min **Monitoring** -respiratory depression, to include ETCO2 (excluding neonatal palliative care) -nasal irritation, headache
KETamine			nasal				nasal				100 mg/mL	**Analgesia**: 0.2 to 1 mg/kg, if necessary may repeat after 10 to 15 minutes with 0.25 to 0.5 mg/kg; titrate to pain goal and tolerability. [max dose: 200 mg]	**Analgesia (low dose; sub-dissociative):** Children ≥3 years and Adolescents: 0.5-1.5 mg/kg [max: 100 mg] **Procedural Sedation:** Infants ≥3 months and children: 3-6 mg/kg, may repeat 3 mg/kg if needed [max: 100 mg]	Give 5- 10 mins before procedure. Onset: 5-10 min Duration: 60 min **Monitoring** -vital signs (HR, BP, RR), CNS/respiratory depression, emergence reaction
MIDazolam	---	nasal	nasal	nasal	---	---	nasal	---	---	nasal	5 mg/mL	Usual: 0.1-0.2 mg/kg as a single dose, may repeat in 15 minutes; reported range 0.2-0.8 mg/kg [max: 10 mg]	Dose: 0.2 mg/kg 1-5 months: 0.2 mg/kg, ≥6 months: 0.2-0.3 mg/kg, max: 0.5 mg/kg [10 mg] **Indications** -needle anxiety and stress related to radiological diagnostic studies -Acute management of seizures	Give 10-15 minutes before procedure; Onset: 5- 10 min Duration: 30-45 min **Monitoring** -respiratory depression, to include ETCO2 -nasal irritation/burning, headache -paradoxical reaction (pediatric)

Drug	NICU	PICU	ED	Rad	ACCU	2500	PACU	LD	non-Tele	ITF/ETS	Concentration	Usual Adult Dose [adult max]	Usual Pediatric Dose [ped max dose]	Nursing/Provider Considerations
Naloxone	---	nasal	nasal	---	---	---	nasal	---	---	nasal	1 mg/mL	Usual: 2 mg Redose: 5 min if CNS/respiratory depression continues [max: 2 mg]	Adolescents ≥ 13 years: 2 mg Redose: 5 min if CNS/respiratory depression continues [max: 2 mg] **Indications** -For full reversal of opioid oversedation/overdose	Onset: 1-5 min Duration: 30-45 min **Monitoring** -vital signs including ETCO2

Abbreviations: MAD: mucosal atomization device; Max: usual maximum dose; non-Tele: non-telemetry monitored patients (Medical/Surgical/OB/PEDS); Rad: radiology diagnostic services

Definitions: *Dead space is an approximate volume of fluid in the MAD device that cannot be expelled upon administration

****Standard process for dilution:** Draw up 1 mL of medication (eg: dexmedeTOMidine 100 mcg/mL) in a syringe and draw up 1 mL of normal saline into a separate syringe. Using a fluid dispensing connector, add 1 mL of medication to 1 mL of normal saline. Using a fluid dispensing connector, draw up the intended dose into a separate syringe and add an additional 0.1 mL of diluted medication to account for the dead space in the MAD device. Remove the syringe containing the intended dose from the fluid dispensing connector and attach it to the MAD. If the dose volume exceeds the patient's maximum volume per nostril, split the dose into 2 syringes. The 0.1 mL overfill is added once to the first "half dose" (first syringe) and the same MAD can be used for both syringes. Administer half the dose (the first syringe) into the first nostril, move the MAD to the second syringe (do not add additional overfill for the second syringe) and then give the second half dose into the other nostril. Monitor as directed.

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CALCULATIONS FOR PREPARING 1:2 DILUTION

Volumes less than 10 percent of a syringe's capacity cannot be measured accurately.

For dose volumes < 0.1 mL, prepare a 1:2 dilution

Drug	NICU	PICU	ED	Rad	ACCU	2500	PACU	LD	non-Tele	ITF/ETS	Concentration	Usual Adult Dose [adult max]	Usual Pediatric Dose [ped max dose]	Nursing/Provider Considerations

To Make 1:2 dilution:

1. In two separate syringes, draw up
1 mL of drug in 3 mL syringe
1 mL of diluent in 3 mL syringe
2. Inject drug into diluent syringe and mix well

Final concentration = drug concentration divided by 2

dose (in mL) = dose ordered (mg or mcg) divided by concentration (mg/mL or mcg/mL)

dexmedeTOMidine 1:2 DILUTION (50 mcg/mL)

Ingredients		**Quantity to**	**To Make 2 mL:**
dexmedeTOMidine 200 mcg/ 2mL	100 mcg/mL	1 mL	1. Draw up 1 mL dexmedeTOMidine in 3 mL syringe
NS		1 mL	2. Draw up 1 mL NS in 3 mL syringe
			3. Add 1 mL dexmedeTOMidine to 1 mL NS
Final	**50 mcg/mL**	**2 mL**	4. Withdraw volume for required dose

CALCULATIONS FOR PREPARING 1:2 DILUTION

Volumes less than 10 percent of a syringe's capacity cannot be measured accurately.
For dose volumes < 0.1 mL, prepare a 1:2 dilution

To Make 1:2 dilution:

1. In two separate syringes, draw up
1 mL of drug in 3 mL syringe
1 mL of diluent in 3 mL syringe
2. Inject drug into diluent syringe and mix well

Final concentration = drug concentration divided by 2

dose (in mL) = dose ordered (mg or mcg) divided by concentration (mg/mL or mcg/mL)

dexmedeTOMidine 1:2 DILUTION (50 mcg/mL)			
Ingredients		**Quantity to Add**	**To Make 2 mL:**
dexmedeTOMidine 200 mcg/ 2mL	100 mcg/mL	1 mL	1. Draw up 1 mL dexmedeTOMidine in 3 mL syringe
NS		1 mL	2. Draw up 1 mL NS in 3 mL syringe
			3. Add 1 mL dexmedeTOMidine to 1 mL NS
Final	**50 mcg/mL**	**2 mL**	4. Withdraw volume for required dose

RIVERSIDE UNIVERSITY HEALTH SYSTEM – MEDICAL CENTER
HOUSEWIDE

	Document No: 818	Page 1 of 6
Title: Adult Inpatient Management of Solid Organ Transplant Pharmacotherapy	**Effective Date:** 6/26/2024	☐ **RUHS – Behavioral Health** ☐ **RUHS – Community Health Centers** ☐ **RUHS – Hospital Based Clinics** ☒ **RUHS – Medical Center** ☐ **RUHS – Public Health** ☐ **Departmental**
Approved By:  Jennifer Cruikshank CEO/Hospital Director		☐ **Policy** ☐ **Procedure** ☒ **Guideline**

1. SCOPE

1.1 This guideline describes the medication management needs and considerations for adult patients presenting for care to Riverside University Health System (RUHS) – Medical Center who have received a solid organ transplant.

1.2 Solid organ transplant includes: a heart, lung, pancreas, kidney, liver transplantation, and/or a combination of these organs.

a. Exclusions: Bone marrow transplant recipients are excluded from this guideline.

2. PURPOSE

This document is to provide guidance to prescribers, nurses, pharmacists and other members of the care team for safely continuing transplant maintaining medications. Considerations should include appropriate dosing, monitoring parameters, formulation conversion, and administration of maintenance immunosuppressants and prophylactic antimicrobials in adult solid organ transplant recipients

3. DEFINITIONS

3.1 SOT: solid organ transplant.

3.2 CNI: calcineurin inhibitors. A common backbone in the immunosuppressant regimen, they ultimately inhibit interleukin-2 synthesis preventing the proliferation of T-cells. Tacrolimus and cyclosporine are the two most prescribed CNI medications in the United States.

3.3 PTA: prior to admission. Refers to medications the patient may be taking prior to admission, and prior care received.

4. GUIDELINES

4.1 All transplant recipients who are receiving care at RUHS would have had their transplantations elsewhere. As a result, PTA records of these individuals are critical to determine the appropriate regimen they should be on while hospitalized

4.2 The attending provider or primary care team does not need to “order” or consult for a Pharmacist or designee to assist in comprehensive review of medication at admission.

4.3 High Risk Patient / Best Possible Medication History (BPMH) - Medication Reconciliation upon Admission by **Pharmacy**

a. A comprehensive medication reconciliation will be done on all SOT patients on either hospital day 0 (preferably) or day 1, regardless of their hospital location or primary care team.

b. Medication reconciliation will include an interview with the patient and/or their caregiver, whenever possible, to confirm the actual PTA medication dosing and frequency. It is not uncommon for patients to deviate from the medication bottle labeling as an adjustment to their latest CNI trough level under the guidance of their transplant clinician.

4.4 Medication Order Processing, Chart Review, and Documentation

a. Between 0700 and 1730, unit-based clinical pharmacist will be notified when there is an order for CNI. An i-Vent will be placed by the unit-based clinical pharmacist. See section e for further details on the i-Vent.

- Outside of these hours, inpatient pharmacist will verify CNI orders and place an i-Vent for further follow-up.

b. Whenever possible, external records from the patient's transplant center will be reviewed and cross-referenced with the medication reconciliation findings to ensure accuracy of transplant pharmacotherapy regimen, trough goals, and other pertinent clinical data.

c. Unit-based clinical pharmacist will inform the primary care team of any discrepancies noted upon the completion of the initial review of patient's transplant pharmacotherapy regimen.

d. Unit-based clinical pharmacist will place a progress note upon final review of patient's PTA transplant pharmacotherapy regimen.

4.5 Monitoring

a. The "Transplant Medication" i-Vent will be placed with a CNI order and updated daily as part of the unit-based clinical pharmacist's workflow

- The i-Vent will include the following (whenever possible and relevant) – organ transplanted, date of transplantation, CNI trough goals, renal and hepatic function, PTA and current pharmacotherapy regimens, and any new or ongoing drug interactions.

b. Unit-based clinical pharmacist will notify the primary care team of new CNI level results, their respective dosing recommendations (if appropriate), timing of next level, and other pertinent information.

c. CNI trough level will be placed every 24 to 72 hours by the unit-based clinical pharmacist upon discussion with the primary care team based on current clinical picture (e.g., new evidence of end-organ dysfunction, introduction of interacting medications, etc.) and any recent dose adjustments.

- CNI's level will be ordered as "Timed" 30 minutes prior to administration of next dose.

d. A basic metabolic panel should be ordered every 72 hours at a minimum to monitor for renal function and evidence of hyperkalemia.

e. When indicated, order ECG to assess QTc interval at baseline and periodically thereafter if patient is on more than one QTc-prolonging agents (e.g., an azole antifungal and an antipsychotic).

4.6 Medication Administration

a. Tacrolimus and cyclosporine, when appropriate, will be administered BID (at 12-hour interval) at 0900 and 2100.

- These medications are considered "time-critical" per HW 852 Medication Administration.

b. Tacrolimus, cyclosporine, and mycophenolate tablets cannot be crushed. Use oral suspension for administration via feeding tube.

c. Intravenous CNIs are not recommended in the maintenance phase in SOT patients due to significantly elevated risk of acute kidney injury (AKI).

d. Sublingual administration of tacrolimus:

- Using 1 mg/ml suspension, RN to place suspension under the patient's tongue slowly (drop by drop) over 5-10 minutes.
- Instruct patient not to swallow the solution. Avoid food and drink for 30 minutes after medication administration.

e. RN to check whether a trough level is needed prior to administering CNI.

f. Both tacrolimus and cyclosporine are considered tier-2 non-antineoplastic hazardous medications. Refer to policy HW 851 Handling of Hazardous Medications for guidance regarding proper handling and administration.

4.7 Patient Counseling and Discharge Medication Review

a. Whenever possible, unit-based clinical pharmacist will provide patient counseling and/or education to SOT patients 1 to 2 days prior to discharge.

b. Discharge medication list should be reviewed by a unit-based pharmacist to ensure for accuracy and completeness.

c. Primary team will notify unit-based clinical pharmacist upon discharge for medication review and counseling.

4.8 Summary of SOT Pharmacotherapeutics

a. Immunosuppressants (items on formulary) – see Appendix 1

- mTOR inhibitors (e.g. sirolimus, everolimus) are not available at RUHS – Medical Center. Non-formulary approval will be needed when indicated. Contact unit-based clinical pharmacist for further guidance.

b. Prophylactic antimicrobials – see Appendix 2

- SOT patients often need prophylaxis against *Pneumocystis jirovecii pneumonia* (PJP), cytomegalovirus (CMV), herpes simplex virus (HSV), and possibly other fungal pathogens.
- Fungal prophylaxis is not always indicated. When warranted, patient is often put on voriconazole, posaconazole, or isavuconazole for *Aspergillus* prophylaxis.

- Consult Infectious Disease if further clarification is needed regarding patient's prophylactic antimicrobial regimen and/or for approval of voriconazole and other non-formulary antimicrobials.

c. Major CYP3A4 interacting agents

- Inducers (decreasing CNI level): phenytoin, phenobarbital, oxcarbazepine, rifampin, carbamazepine, and St. John's wort.
- Inhibitors (increasing CNI level): grapefruit juice, voriconazole, fluconazole, posaconazole, verapamil, diltiazem, erythromycin, and ritonavir.
- Nephrotoxic agents (e.g., contrast, vancomycin, aminoglycosides, amphotericin B, etc.) should be used judiciously in SOT patients given elevated risk of AKI due to the concomitant use of CNI.
- Additional precautions to screen for drug interactions should be taken if patient is on voriconazole, posaconazole, or itraconazole. Due to their half-lives, drug interactions may occur up to 7-10 days after discontinuation.
- Adjust CNI dose and monitor drug levels accordingly if there's a concern for new drug interactions and/or elevated risk of AKI.

5. REFERENCES

5.1 HW 852 Medication Administration

5.2 HW 851 Handling of Hazardous Medications

5.3 Al Sagheer, T, Enderby, CY. Determining the conversion ratios for oral versus sublingual administration of tacrolimus in solid organ transplant recipients. *Clin Transplant*. 2019; 33:e13727.

5.4 Prograf(R) [package insert]. Northbrook, IL: Astellas Pharmaceuticals Inc; 2022.

5.5 Nelson, J, Alvey, N, Bowman, L, et al. Consensus recommendations for use of maintenance immunosuppression in solid organ transplantation: Endorsed by the American College of Clinical Pharmacy, American Society of Transplantation, and the International Society for Heart and Lung Transplantation. Pharmacotherapy. 2022; 42: 599- 633.

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APPENDIX 1: Immunosuppressants Available at RUHS Medical Center

Drug Name and Formulation	Route	Clinical Pearls
Tacrolimus [immediate release (IR)] Prograf® capsules: 0.5 mg, 1 mg, 5 mg Suspension (compounded by pharmacy): 1 mg/mL	Capsule: PO Suspension: SL, NG, OG, PEG	• Monitor mental status, renal (UO, SCr, BUN, etc.) and hepatic (LFTs) functions • Beware of concurrent use CYP 3A4 inducers/inhibitors • Trough goal is patient-specific (organ vs. time from transplant, history of rejections, and other comorbidities), ranging from 5 – 20 ng/ml • Dose conversion for sublingual: 2 PO: 1 SL • Extended release (XR) formulations (Envarsus XR® and Astagraf XL®) to be converted to IR formulation if home supply cannot be secured within 24 hours. Envarsus XR®: once daily dose of XR = 80% of IR Total Daily Dose. Astagraf XL®: once daily dose of XL = IR TDD
Cyclosporine (IR) Modified capsules: 25 mg, 100 mg Modified solution: 100 mg/mL	Capsule: PO Suspension: NG, OG, PEG	• Monitor mental status, renal (UO, SCr, BUN, etc.) and hepatic (LFTs) functions • Beware of concurrent use CYP 3A4 inducers/inhibitors • Trough goal is patient-specific (organ vs. time from transplant, history of rejections, and other comorbidities), ranging from 100 – 300 ng/ml • Neoral® and Gengraf® refer to the microemulsion formulations, which are preferred over non-modified formulation (Sandimmune®) thanks to their more reliable absorption • Careful dose conversion and monitoring should be made when changing cyclosporine from non-modified to modified formulation due to differences in bioavailability
Mycophenolate Cellcept® (mofetil) capsule: 250 mg; tablet: 500 mg; suspension: 200 mg/mL; injection: 500 mg/vial Myfortic® (sodium delayed-release) tablet: 180 mg and 360 mg	Tablet and capsule: PO Suspension: NG, OG, PEG Injectable: IV	• Monitor for evidence of GI intolerance (nausea, diarrhea, and vomiting) and potential risk of leucopenia • 500 mg of mycophenolate mofetil = 360 mg of mycophenolate sodium delayed-release • Delayed-release formulation (Myfortic®) may be an alternative to mofetil formulation (Cellcept®) in those with gastrointestinal side effects
Corticosteroids	Tablet: PO, NG, OG, PEG	Prednisone is commonly prescribed. Dosing varies dependent upon organ type and transplant/rejection history. Some patients may not be on steroids at all after a few years.

APPENDIX 2: Antimicrobial Prophylaxis at RUHS Medical Center

Drug Name and Formulation	Route	Clinical Pearls
Trimethoprim/sulfa-methoxazole Bactrim® tablet: 400 mg/80 mg [of trimethoprim (TMP)] and 800 mg/160 mg (of TMP) Suspension: 200 mg and 40 mg (of TMP) per 5 mL Injection: 80 mg/16 mg (of TMP) per mL	Tablet: PO Suspension: NG, OG, PEG Injectable: IV	• Monitor renal function (UO, SCr, BUN, etc.) and serum potassium • Indication: PJP prophylaxis • Typical dose: 800 mg/160 mg TMP TIW x 6-12 months (dependent on transplant history) • Dapsone, atovaquone, and inhaled pentamidine can be considered as alternatives
ValGANciclovir Valcyte® tablet: 450 mg Suspension: 50 mg/mL	Tablet: PO Suspension: NG, OG, PEG	• Monitor renal function (UO, SCr, BUN, etc.) and complete blood count • Indication: cytomegalovirus (CMV), herpes simplex, and varicella-zoster prophylaxis • Typical dose: 450 mg daily or BID; 900 mg qday up to 12 months (dependent on transplant history and donor/recipient CMV serostatus) • Use ganciclovir 5 mg/kg q24h if IV administration is warranted • Requires dosing adjustment once CrCl ≤ 60 mL/minute
ValACYclovir Valtrex® tablet: 500 mg, 1 g Suspension: 50 mg/mL	Tablet: PO Suspension: NG, OG, PEG	• Monitor renal function (UO, SCr, BUN, etc.) and complete blood count • Indication: herpes simplex and varicella-zoster prophylaxis • Typical dose: 500 mg BID • Requires dosing adjustment once CrCl ≤ 30 mL/minute