RIVERSIDE MEDICAL CENTER, INC.

DR. PABLO O. TORRE MEMORIAL HOSPITAL

METRO PACIFIC HEALTH
THE HEART OF FILIPINO HEALTHCARE

DEPARTMENT: Pharmacy Division		**POLICY NUMBER:** DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: **ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS**			
EFFECTIVE DATE: August 15, 2023	**REVISION DUE:** August 14, 2026	**REPLACES NUMBER:** N/A	**NO. OF PAGES:** 1 of 6
APPLIES TO: All Pharmacy Division Staff, Nursing Department Staff, Medical Staff, Medical Laboratory Staff and Infection Prevention and Control Unit Staff		**POLICY TYPE:** Multi Disciplinary	

PURPOSE:

To ensure the appropriate use of antibiotics in the prevention of infection involving surgical procedures.

DEFINITIONS:

Clean-contaminated – an incision through which the respiratory, alimentary or genitourinary tract is entered under controlled conditions but with no contamination encountered.

RESPONSIBILITY:

Pharmacy Departments, Nursing Service Division, Infection Prevention and Control Unit, Medical Staff, Laboratory

POLICY:

1. Surgical prophylaxis in adult patients:
   - 1.1 Surgical prophylaxis is recommended only when the potential benefits exceed the risks and the anticipated costs. For clean surgeries, no prophylaxis is recommended as a general rule. Exception: procedures where there are severe consequences of infection (e.g. prosthetic implants, cardiac procedures).
   - 1.2 The antibiotic chosen shall cover the expected pathogens for the operative site and take into account local resistance patterns.
   - 1.3 Effective prophylaxis requires antimicrobial serum and tissue concentrations above the minimum inhibitory concentration (MIC) for the probable organisms associated with the specific procedure at the time of incision and throughout the duration of the procedure.
     - 1.3.1 Intravenous antimicrobial shall be started within 60 minutes before surgical incision. Exceptions: Vancomycin and Fluoroquinolones require 1- to 2-hour infusion times; hence, dose is started 2 hours before surgical incision. Rapid infusion of Vancomycin shall result in hypotension and other signs and symptoms of histamine release (red man syndrome).
     - 1.3.2 A single dose of antimicrobial with a long enough half-life to achieve activity throughout the operation is sufficient for prophylaxis under most circumstances. Post-procedure doses are generally not needed.
     - 1.3.3 For procedures lasting more than two half-lives of the prophylactic agent, or when

DEPARTMENT: Pharmacy Division		POLICY NUMBER: DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS			
EFFECTIVE DATE: August 15, 2023	REVISION DUE: August 14, 2026	REPLACES NUMBER: N/A	NO. OF PAGES: 2 of 6
APPLIES TO: All Pharmacy Division staff, Nursing department staff, Medical Staff, Medical Laboratory staff and Infection Prevention and Control Unit staff		POLICY TYPE: Multi Disciplinary	

dose.

1.4 The use of Vancomycin is discouraged but shall be justifiable in centers where rates of post-operative infection with methicillin-resistant Staphylococcus aureus (MRSA) are high, or in patients with known MRSA colonization or at high risk for this (e.g., hemodialysis patients). It is also an alternative when patients have a history of an immediate type of allergic reaction to beta-lactams (anaphylaxis, laryngeal edema, bronchospasm, hypotension, local swelling, urticaria or pruritic rash occurring immediately after a beta-lactam dose) or exfoliative dermatitis (e.g., Stevens-Johnson syndrome). Unlike beta-lactams, vancomycin has no activity against Gram-negative organisms. When Gram-negative bacteria are a concern (as shown by local surveillance data), adding a second agent with appropriate in vitro activity shall be necessary. This can be done by adding cefazolin to vancomycin in the non-allergic patient. In patients intolerant of or allergic to beta-lactams, use vancomycin with another Gram-negative antibiotic(e.g., aminoglycoside, fluoroquinolone, or aztreonam).

1.5 For patients currently given therapeutic antibiotic(s) for infection remote to surgery site and when the antibiotic regimen is appropriate also for prophylaxis, a dose should be given within an hour prior to incision.

1.6 The risks of pre-surgical prophylaxis include Clostridium difficile infection and allergic reactions. Improper antimicrobial prophylaxis leads to excessive surgical wound infection rate (up to 52% in most studies), prolonged hospital stay, increased morbidity and mortality, and increased health care cost.

2. Surgical prophylaxis in pediatrics

2.1 The principles mirror those for antibiotic prophylaxis in adults. However, data in the pediatric population are limited and recommendations have largely been extrapolated from studies in adults.

2.2 Recommendations are generally the same as for adults except for dosing.

2.3 Fluoroquinolones should not be used because of the potential for toxicity.

3. The Surgical Prophylaxis form shall be filled up for all patients that undergo the use of surgical prophylaxis.

3.1 Documentation of antimicrobial administration shall include date, time of

DEPARTMENT: Pharmacy Division		POLICY NUMBER: DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS			
EFFECTIVE DATE: August 15, 2023	REVISION DUE: August 14, 2026	REPLACES NUMBER: N/A	NO. OF PAGES: 3 of 6
APPLIES TO: All Pharmacy Division Staff, Nursing Department Staff, Medical Staff, Medical Laboratory Staff and Infection Prevention and Control Unit Staff		POLICY TYPE: Multi Disciplinary	

prophylaxis.

3.1 Documentation of antimicrobial administration shall include date, time of administration, name of medication, dose, and route of administration. Do not abbreviate name of medication and do not use unapproved abbreviations. Documentation is done by using the Surgical Prophylaxis form and would be part of the patient chart.

3.2 Antibiotic prophylaxis for surgery is given within one hour prior to surgical incision except for Vancomycin, which is given within two hours prior to surgical incision.

3.3 All parenteral antibiotics listed in this guideline shall be infused as indicated in the National Antibiotic Guidelines. Please note, it is strongly recommended that Vancomycin be administered over a minimum of 60 minutes and that all pre-operative antibiotics are completely infused before start of procedure.

3.4 If a tourniquet is to be used in the procedure, the entire dose of antibiotic shall be infused prior to tourniquet inflation.

3.5 Intra-operative re-dosing is necessary during procedures that exceed two half-lives of the drug to maintain adequate serum and tissue concentrations.

3.6 In clean and clean-contaminated procedures, high-quality evidence suggests that additional prophylactic antibiotic doses are not needed after the surgical incision is closed in the OR even in the presence of a drain. For all other procedures, antibiotic prophylaxis shall be discontinued within 24 hours of surgical end time. Use of antibiotics beyond the recommended post-operative duration requires proper documentation of infection or suspected infection.

3.7 Vancomycin use requires documentation of the reason for use in the medical record by the prescribing physician or his/her designee. Reasons for use include:

3.7.1 Beta-lactam(penicillin or cephalosporin)allergy

3.7.2 Known Methicillin resistant Staphylococcus aureus (MRSA) colonization or infection or high risk for MRSA (i.e. recent inpatient hospitalization, resides in an extended care facility/group home, receives dialysis).

4. The National Antibiotic Guidelines shall be a point of reference for the recommended choice of antibiotic prophylaxis regimen by surgical procedure.
5. Audit for adherence to surgical prophylaxis guidelines shall be a joint cooperation of the total quality division and AMS Committee.

DEPARTMENT: Pharmacy Division		**POLICY NUMBER:** DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: **ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS**			
EFFECTIVE DATE: August 15, 2023	**REVISION DUE:** August 14, 2026	**REPLACES NUMBER:** N/A	**NO. OF PAGES:** 4 of 6
APPLIES TO: All Pharmacy Division staff, Nursing department staff, Medical Staff, Medical Laboratory staff and Infection Prevention and Control Unit staff		**POLICY TYPE:** Multi Disciplinary	

PROCEDURE (SOP): N/A

WORK INSTRUCTION: N/A

WORK FLOW: N/A

FORMS:

ANNEX: NATIONAL ANTIBIOTIC GUIDELINES FOR SURGICAL PROPHYLAXIS

RIVERSIDE MEDICAL CENTER, INC.
Owner and operator of the Dr. Pablo O. Torre Memorial Hospital
DR. PABLO O. TORRE MEMORIAL HOSPITAL
METRO PACIFIC HEALTH
THE HEART OF FILIPINO HEALTHCARE

SURGICAL PROPHYLAXIS FORM

Patient Name:		Age:	Gender:	Room No.	Hospital No.	Body Weight:	
Allergy:		Serum Creatinine	Creatinine Clearance	SGPT	Diagnosis:		
Previous antibiotics for the past 3 months		Classification of Surgery	☐ Clean ☐ Clean-contaminated	☐ Contaminated	☐ Infected		

PROCEDURE	ANTIMICROBIAL REQUESTED	DOSE	FREQUENCY	START DATE	Time given	# of doses	REQUESTING PHYSICIAN (Name and Signature)	Carried out by (date/name/signature)
☐ CARDIOVASCULAR SURGERY								
• Reconstruction of abdominal aorta • Leg vascular procedures that involve a groin incision • Any vascular procedure with insertion Of prosthesis foreign body • Lower extremity amputation for ischemia • Cardiac surgery • Permanent pacemakers • Heart transplant • Implanted cardiac defibrillators								
☐ GASTROINTESTINAL/BILIARY								
Gastroduodenal, includes percutaneous endoscopic gastrostomy (high risk only), Pancreaticoduodenectomy (Whipple procedure)								
Biliary, includes high risk laparoscopic Cholecystectomy, open cholecystectomy								
Endoscopic retrograde cholangiopancreatography								
☐ COLORECTAL/INTESTINAL								
Colorectal surgery								
Small bowel surgery without obstruction								
Small bowel surgery with obstruction								
Appendectomy for uncomplicated appendicitis								
☐ HEAD AND NECK SURGERY								
The efficacy of prophylaxis is best established for Head and neck cancer surgery. Wound infection rate Can still be high though even with prophylaxis.								
☐ NEUROSURGICAL PROCEDURES								
Clean, non-implant; e.g. elective craniotomy								
Clean, contaminated (cross sinuses, or naso/Oropharynx)								
CSF shunt surgery, intrathecal pumps								
☐ OBSTETRIC/GYNECOLOGIC								
Vaginal or abdominal hysterectom								
Caesarean section for premature rupture of membranes or active labor								
Episiotomy for vaginal birth								
☐ OPTHALMIC SURGERY								
☐ ORTHOPEDIC SURGERY								
Total joint replacement (TJR), spinal procedures, hip fracture repair, implantatign of internal Fixation devices (screws, nails, plates, wires)								
Clean operations of hands, feet and arthroscopy Without implantation of foreign materials								
Noncardiac procedures, including lobectomy, pneumonectomy, lung resection, and Thoracotomy Video-assisted thoracoscopic surgery								
☐ UROLOGIC SURGERY/PROCEDURE								
Cystoscopy								
Cystoscopy with manipulation								
Transrectal prostate biopsy								
OTHERS: Please state:								

DPOTMH-PHARM-F041
Effective Date: 06-26-2023

Unauthorized duplication of this form is strictly prohibited

MASTER COPY

DEPARTMENT: Pharmacy Division		**POLICY NUMBER:** DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: **ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS**			
EFFECTIVE DATE: August 15, 2023	**REVISION DUE:** August 14, 2026	**REPLACES NUMBER:** N/A	**NO. OF PAGES:** 5 of 6
APPLIES TO: All Pharmacy Division staff, Nursing department staff, Medical Staff, Medical Laboratory staff and Infection Prevention and Control Unit staff		**POLICY TYPE:** Multi Disciplinary	

EQUIPMENT: N/A

REFERENCES:

1. National Antibiotic Guidelines Committee "National Antibiotic Guidelines 2018"
2. Anderson DJ, et al. Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery. Infect Control Hospital Epidemiol 2014; 35(6): 605-627. Antibiotic Guidelines 2015-2016. Treatment Recommendations for Adult Inpatients.
3. Bratzler DW, et al. Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery. Am J Health Syst Pharm 70:195, 2013.
4. Berrios-Torres SI, Umscheid CA, Bratzler DW, et al; Healthcare Infection Control Practices Advisory Committee. Centers for Disease Control and Prevention guideline for the prevention of surgical site infection, 2017. JAMA Surg. Published online May 3, 2017. doi:10.1001/jamasurg.2017.0904.
5. Gilbert DN, Chambers HF, Eliopoulis GM, Saag MS, Pavia AT, Black DB, Freedman DO, Kim K, Schwartz BS editors. Sanford Guide to Antimicrobial Therapy 2016.
6. Katzung BG, Masters SB, Trever AJ editors. Basic and Clinical Pharmacology, 13th edition Mc Graw Hill 2015:883.
7. Research Institute for Tropical Medicine. Antimicrobial Resistance Surveillance Program 2015 Annual Report.
8. Scottish Intercollegiate Guidelines Network (SIGN). Antibiotic prophylaxis in surgery. Edinburgh: SIGN; 2008.
9. Wolf JS Jr1, et al. Best practice policy statement on urologic surgery antimicrobial prophylaxis. J Urol. 2008 Apr;179(4):1379-90.
10. World Health Organization 2016 Global Guidelines on the Prevention of Surgical Site Infections.
11. WHO recommendations for prevention and treatment of maternal peripartum infections. Geneva: World Health Organization; 2015
12. Bratzler DW, Dellinger EP, Olsen KM, Perl TM, Auwaerter PG, Bolon MK, Fish DN, Napolitano LM, Sawyer RG, Slain D,
Steinberg JP, Weinstein RA; American Society of Health-System Pharmacists; Infectious Disease Society of America; Surgical Infection Society; Society for Healthcare Epidemiology of America.Clinical practice guidelines for antimicrobial prophylaxis in surgery. Am J Health Syst Pharm. 2013 Feb 1;70(3):195-283.

RIVERSIDE MEDICAL CENTER, INC.

DR. PABLO O. TORRE MEMORIAL HOSPITAL

METRO PACIFIC HEALTH
THE HEART OF FILIPINO HEALTHCARE

DEPARTMENT: Pharmacy Division		**POLICY NUMBER:** DPOTMH-MPP-PHAR-P030-(01)	
TITLE/DESCRIPTION: **ANTIMICROBIAL STEWARDSHIP – SURGICAL PROPHYLAXIS**			
EFFECTIVE DATE: August 15, 2023	**REVISION DUE:** August 14, 2026	**REPLACES NUMBER:** N/A	**NO. OF PAGES:** 6 of 6
APPLIES TO: All Pharmacy Division staff, Nursing department staff, Medical Staff, Medical Laboratory staff and Infection Prevention and Control Unit staff		**POLICY TYPE:** Multi Disciplinary	

APPROVAL:				
	Name/Title	**Signature**	**Date**	**TQM Stamp**
Prepared by:	**STEPHANIE CAMILLE O. SAMONTE** Inpatient Clinical Pharmacist		7/19/2023	
Reviewed by:	**RODEL J. LLAVE** Total Quality Division Head		7-20-23	
Approved by:	**MIRIAM HOPE D. BRAVO** Inpatient Pharmacy Manager		7/20/23	TQD
	JEANETTE J. UMALI, MD Antimicrobial Stewardship Committee Chairman		7/21/2023	
	MA. ANTONIA S. GENSOLI, MD VP/Chief Medical Officer		8-7-23	
Final Approved By:	**GENESIS GOLDI D. GOLINGAN** President and Chief Executive Officer		08/16/23	

MASTER COPY