County of Los Angeles **Department of Health Services**

OLIVE VIEW-UCLA MEDICAL CENTER
POLICY & PROCEDURE

NUMBER: 11894
VERSION: 1

SUBJECT/TITLE: **ANTIMICROBIAL STEWARDSHIP INTRAVENOUS TO ORAL CONVERSION PROTOCOL**

POLICY: The Antimicrobial Stewardship Pharmacists will perform automatic intravenous to oral conversion for the antimicrobials as specified below for adult inpatients (≥ 18 years of age), unless the ordering provider requests no automatic conversion.

PURPOSE:

1. To establish a standardized protocol for the Antimicrobial Stewardship Pharmacists to perform automatic intravenous to oral conversion
2. Facilitate early transition to oral step-down therapy and potentially decrease the length of hospital admission
3. Improve patient care by reducing the risk for intravascular catheter infection and/or contamination
4. Preserve pharmacy resources by reducing sterile compounding workload and reduce nursing needs by limiting intravenous administration
5. Promote cost-effective utilization of antimicrobials without adversely affecting treatment of infection

DEPARTMENTS: **ALL**

PROCEDURE:

ANTIMICROBIALS ELIGIBLE FOR AUTOMATIC INTRAVENOUS TO ORAL CONVERSION:

ANTIBIOTIC	IV DOSE	ORAL EQUIVALENT	ORAL BIOAVAILABILITY	COMMENTS
Azithromycin	250mg to 500mg Q24hr	250mg to 500mg Q24hr	38%	Conversion 1:1
Clindamycin	600mg to 900mg Q8hr	300mg to 450mg TID-QID	90%	Indication specific dose conversion
Ciprofloxacin	200mg Q12hr 400mg Q12hr 400mg Q8hr	250mg Q12hr 500mg Q12hr 750mg Q12hr	70-80%	IV: PO Ratio 4:5 Avoid tablets via feeding tube
Doxycycline	100mg Q12hr	100mg Q12hr	Virtually complete absorption	Conversion 1:1
Fluconazole	200mg to 400mg Q24hr	200mg to 400mg Q24hr	>90%	Conversion 1:1 For doses ≥800mg, consider dividing doses
Levofloxacin	250mg to 750 mg Q24hr	250mg to 750 mg Q24hr	99%	Conversion 1:1 Avoid tablets via feeding tube
Linezolid	600mg Q12hr	600mg Q12hr	~100%	Conversion 1:1
Metronidazole	500mg Q8hr	500mg Q8hr	100%	Conversion 1:1
Sulfamethoxazole/ Trimethoprim	5mg to 20mg TMP/kg/day in divided doses	5mg to 20mg TMP/kg/day in divided doses	90-100%	Conversion 1:1 Do not convert for PCP

*Antimicrobials with 1:1 dose conversion will have same dose if not listed above.

1. Unless otherwise requested by the physician/provider, Antimicrobial Stewardship (ASP)

Pharmacists will automatically perform oral conversion of intravenous orders for the antimicrobials as specified above.

2. The ASP Pharmacists will review active antibiotic orders to identify intravenous antimicrobials that are eligible for conversion.
3. The ASP Pharmacists will review the active intravenous antimicrobial order for the following eligibility and exclusion criteria:

Eligibility Criteria	Exclusion Criteria
• Tolerating enteral diet or enteral feeding • For patients who are strict NPO conversion may be performed in the presence of a gastric tube, nasogastric tube, or alternate mechanism for administration of oral dosage form medications into the alimentary tract; NPO except for medications will be eligible for conversion. • Clinical stability and/or improvement: ➢ Hemodynamic stability ➢ Absence of severe sepsis or septic shock	• Strict NPO in the absence of a gastric tube, nasogastric tube, or alternate mechanism for administration of oral dosage form medications into the alimentary tract • Persistent nausea and/or vomiting • Patients with one or more of the following conditions: ➢ Patients with mucositis and unable to tolerate oral medications ➢ Patients with dysphagia and unable to tolerate oral medications ➢ Ileus or suspected ileus ➢ Malabsorption syndrome ➢ Proximal resection of small intestine ➢ High gastric tube output or need for continuous GI suction (>500 mL/day)

4. The ASP Pharmacist will discontinue the active intravenous antimicrobial order on ORCHID and enter a new order for the oral antimicrobial conversion, selecting “No Cosign Required (Per Protocol)” under “Communication Type”
   a. The pharmacist will select an appropriate oral dose that is equivalent to the intravenous dose
   b. The pharmacist will select an appropriate start time for the new oral antimicrobial order relative to the order start time of the original intravenous order, or if applicable, relative to the previously administered intravenous dose
   c. The pharmacist will maintain the original intravenous order stop date and stop type
5. Upon intravenous to oral conversion, the ASP Pharmacist will notify the ordering physician/provider and will enter an Antibiotic Stewardship Inpatient Note to document the conversion.

References:

1. Barlam TF, et al. Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America. Clin Infect Dis. 2016;62:e51–e77
2. Davey P, et al. Sequential Antibiotic Therapy: The Right Patient, the Right Time and the Right Outcome. The Journal of Infection. Jul 1998;37 Suppl 1:37-44
3. Dellit TH, et al. Infectious Diseases Society of America Society for Healthcare Epidemiology of America. Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America Guidelines for Developing an Institutional Program to Enhance Antimicrobial Stewardship. Clin Infect Dis. 2007;44:159–177
4. IBM Micromedex. Truven Health Analytics, IBM Corporation. March 19, 2020.
5. Pablos AI, et al. Evaluation of an Antibiotic Intravenous to Oral Sequential Therapy Program. Pharmacoepidemiology and Drug safety. Jan 2005;14(1):53-59
6. Park SM, et al. Impact of Intervention by an Antimicrobial Stewardship Team on Conversion from Intravenous to Oral Fluoroquinolones. Infect Chemother. 2017;49:31–37
7. Wolters Kluwer Clinical Drug Information, Inc. (Lexi-Drugs). Wolters Kluwer Clinical Drug Information, Inc.; March 17, 2020

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