

**SAMPLE
URINARY TRACT INFECTION
COLLABORATIVE PRACTICE AGREEMENT**

The Wisconsin Medical Practice Act sec 448.03(2)(e) allows pharmacists to practice under a Collaborative Practice Agreement with individual physician(s) who is/are responsible for the patient's care and authorized to prescribe drugs. Through this agreement, pharmacists may participate in the practice of managing and modifying drug therapy. It is the intent of this document to authorize the pharmacist(s) listed below to work in a collaborative fashion with the physician(s) listed below. The document sets forth guidelines for collaboration between the physician(s) and pharmacist(s). This agreement is voluntary and may be terminated at any time by either party.

URINARY TRACT INFECTION COLLABORATIVE AGREEMENT APPROVED BY:

PHARMACIST(S):

PHYSICIAN(S):

MEDICAL DIRECTOR:

If the Medical Director agrees to sign on behalf of all physicians and advanced practice provider's names above, then this will serve that all physicians and advanced practice providers agree that the named clinical pharmacist may enter into a Collaborative Practice with them for urinary tract infection in all referred patients regardless of referral reasons according to the attached agreement.

Date of Implementation:

URINARY TRACT INFECTION COLLABORATIVE PRACTICE AGREEMENT

Purpose/Background

In order to enhance collaborative patient care, and optimize antimicrobial safety for agents being used to treat lower urinary tract infections, pharmacists will be given authority to adjust antimicrobial dosing for Creatinine Clearance (CrCl) independently and order select labs as outlined in the agreement.

Policy

Pharmacists, pharmacy residents, and pharmacy students completing rotations under the supervision of the clinical pharmacist will adhere to this agreement. This agreement applies to residents under the care of providers at _____.

Organization

Activities allowed by the clinical pharmacist under the collaborative practice agreement with the physician(s):

- Order a basic metabolic panel (BMP) to obtain serum creatinine (SCr) if one is not available from the past 30 days.
- If not already ordered, may order an International Normalized Ratio (INR) for residents on warfarin therapy to monitor for drug-drug interactions both during and at an appropriate interval post antibiotic discontinuation.
- If not already ordered, may order a urinalysis with culture if indicated by urinalysis results, for the purpose of targeting antibiotic therapy.
- Calculate the resident's estimated CrCl using the Cockcroft-Gault equation and adjust urinary tract antibiotic dose per CrCl recommendations in Table 1.

Documentation: All activities will be documented in the resident's record and will be available for review.

Quality Improvement

Clinical activities related to this agreement will be reviewed at least annually by the clinical pharmacist and physician providers, and revised as needed.

Clinical Pharmacist Qualifications:

- Active pharmacist licensure in good standing in the state of Wisconsin.
- Completion of CPA toolkit assessment.

The following table represents the dose adjustments that will be made based on the patient's estimated CrCl. In cases where dose ranges are noted, the pharmacist will keep the ordered dose if it falls into the dosing range and adjust only the administration interval.

| Table 1. Uncomplicated Lower Urinary Tract Infection Dosing and Renal Dosing Adjustment | | | |
|--|--|---|------------------|
| Per the CPA, the pharmacist has authority to dose adjust as per parameters outlined in this table. | | | |
| Medication Name | Dosing for UTI | Adjusted Dosing for CrCl (140 - age) * weight /SCr (mg/dL) * 72 = CrCl Multiply by 0.85 if female CrCl (mL/min) HD = hemodialysis | Reference |
| Amoxicillin | 250-500mg Q 8H OR 500mg-750mg Q 12H | <30: Do not use ER tablets 10-30: 250mg to 500mg Q12H. <10: 250mg to 500mg Q24H. HD: 250mg to 500mg Q24H. If daily dose given before HD, give supplemental dose after dialysis on HD days. If daily dose given after HD, no additional dose needed. | 1,2 |
| Amoxicillin/clavulanate (dosing based on amoxicillin component) | 250mg/125mg Q 8H OR 500mg/125mg Q 12H | <30: Do not use ER tablets. 10-30: 250mg to 500mg Q12H. <10: 250mg to 500mg Q24H. HD: 250mg to 500mg Q24H. If daily dose given before HD, give supplemental dose after dialysis on HD days. If daily dose given after HD, no additional dose needed. | 1,2 |
| Cefaclor | 250mg-500mg Q 8H | <10: Reduce dose to 250mg if 500mg was ordered. HD: 250mg Q 12H (Moderately dialyzable 20-50%) | 1,2 |
| Cefdinir | 300mg Q 12H | <30: 300mg Q 24H. HD: 300mg Q 48H administered after HD run on HD days. | 1,2 |
| Cefpodoxime-proxetil | 100mg-200mg Q 12H | <30: Same dose Q 24H. HD: 100mg-200mg given three times weekly; once after each HD session. | 1,2 |
| Ciprofloxacin | 250mg Q 12H | <i>Reserve fluoroquinolones for patients without alternative options. Do not use XR/ER product in renal insufficiency</i> 5-29: 250mg Q 24H. HD: 250mg Q 24H given after dialysis on HD days. | 1,2 |
| Fosfomycin | 3g sachet x 1 for uncomplicated UTI 3g Q 48-72H for complicated UTI | <50: Use with extreme caution as half-life is extended. If using for multiple doses, consider 3g Q 72H for complicated UTI. HD: Administer dose after each dialysis session. | 1,2 |
| Levofloxacin | 250mg Q 24H | <i>Reserve fluoroquinolones for patients without alternative options.</i> 10-19: No adjustment required if 250mg dose is used. If 500mg dose is ordered, adjust down to 250mg Q 24H. HD: Information unavailable, no automatic dose adjustment per this CPA. | 1,2 |

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| Medication Name | Dosing for UTI | Adjusted Dosing for CrCl | | Reference |
|--|--|---|--|-----------|
| | | CrCl (mL/min) | | |
| Nitrofurantoin | Macrobid: 100mg Q 12H Macrochantin: 50-100mg Q 6H | > 30 : No adjustment required < 30 : CONTRAINDICATED | | 1,2,3 |
| Trimethoprim/ Sulfamethoxazole (dosing based on trimethoprim component) | 160mg/800mg Q 12H | > 30 : No adjustment required 15-30 : 160/180mg Q 24H < 15 : Use is not recommended and will not be adjusted automatically per CPA. | | 1,2 |

Disclaimer: It is the user's responsibility to assure that recommended drug, dosage, dose interval, route of administration, and length of treatment recommendations are current.

References:

1. Micromedex Healthcare Series. DRUGDEX System. Greenwood Village, CO: Truven Health Analytics, updated frequently.
http://www.micromedexsolutions.com.cuw.ezproxy.switchinc.org/micromedex2/librarian/CS/4330F6/ND_PR/evidencexpert/ND_P/evidencexpert/DUPLICATIONSHIELDSYNC/08F11C/ND_PG/evidencexpert/ND_B/evidencexpert/ND_AppProduct/evidencexpert/ND_T/evidencexpert/PFActionId/pf.HomePage?navitem=topHome&isToolPage=true. Accessed January 2, 2013.
2. Wolters Kluwer Clinical Drug Information. Lexicomp Online. Hudson, OH: Lexi-Comp, Inc., updated frequently.
<http://online.lexi.com.cuw.ezproxy.switchinc.org/lco/action/home>. Accessed November 8, 2016.
3. American Geriatrics Society 2015 Beers Criteria Update Expert Panel. American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults.
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