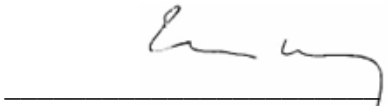





Medical Directive

Title:	Assessment and Treatment of Lower Uncomplicated UTI in Non-Pregnant Females 12 years of age and older	Assigned Number:	018
Activation Date:	July 1, 2011	Review due by:	December 2025
Approval Signature & Date			
Medical Director:		Date Reviewed:	Feb 23, 2024
Clinical Services Director:		Date Reviewed:	Feb 23, 2024
Order and/or Delegated Procedure:	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
	Title:		
Assessment for and treatment of Lower Uncomplicated Urinary Tract Infections in females 12 years old and older by Registered Nurses/ Registered Practical Nurses, in person.			
Recipient Patients:	Appendix Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
	Title:		
All active patients (female, 12 years old and older) of the Thames Valley Family Health Team who require assessment for and treatment of Lower Uncomplicated Urinary Tract Infections.			
Authorized Implementers:	Appendix Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
	Title:		
Thames Valley Family Health Team Registered Nurses, and Registered Practical Nurses (RN/RPN)* herein referred to as implementer.			
The implementer must receive orientation from the Educator with regards to the task. The implementer must have completed orientation and educational requirements of the Assessment and Treatment of Lower Uncomplicated UTI in Non-Pregnant Females 12 Years of Age and Older medical directive. The implementer must sign the Implementer Performance Readiness Form electronically via HR Downloads after successful completion of the orientation (and quiz, if applicable) indicating acceptance of this medical directive			

Indications:	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Title: Appendix 17 - Assessment Tool UTI.
<ol style="list-style-type: none"> 1. Verbal consent received from the patient or a substitute decision maker for the implementer to assess and treat the Lower Uncomplicated UTI. 2. Patient has one or more symptoms of lower urinary tract infection (dysuria, frequency, urgency, lower abdominal or suprapubic discomfort, or any of these symptoms in addition to hematuria; or symptoms consistent with past infection) and lack of vaginal irritation or discharge. <p>Assessment Tool: See Appendix 17- Assessment Tool UTI</p>	
Contraindications:	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Title:
<ol style="list-style-type: none"> 1. No verbal consent from patient or substitute decision maker for the implementer to implement this medical directive. 2. Patient is a Female under 12 years old, male, pregnant, or lactating 3. Patient has risk factors for complicated Urinary Tract Infection (UTI): <ol style="list-style-type: none"> a. Functional or anatomic abnormality of urinary tract (e.g., polycystic renal disease, nephrolithiasis, neurogenic bladder, diabetes mellitus, immunosuppression, indwelling urinary catheter, recent urinary tract instrumentation) b. Renal insufficiency (eGFR or Creatine Clearance less than 60 mL/min/1.73 m²) c. Symptoms have persisted for more than 14 days d. History of infections with antimicrobial-resistant organism(s) e. Recurrent UTI – new symptoms of UTI where the patient has had 2 or more UTIs in past 6 months or 3 or more in the past 12 months f. Complex medical co-morbidity (a patient with two or more active diagnoses/conditions where, at the discretion of the implementer of the directive, is outside their comfort level in applying this directive) 4. Patient is exhibiting signs and/or symptoms of possible pyelonephritis or upper tract UTI: fever, chills, rigors, costovertebral angle tenderness /flank pain, vomiting, significant fatigue or malaise beyond baseline. 5. Patient has blood in urine in the absence of other lower UTI symptoms (I.e., dysuria, frequency, urgency, suprapubic pain) 6. Abnormal liver function (ALT/ALP greater than 3 times the Upper Limit of Normal). <p>For patients referred to in #4-6 above, the patients' symptoms are reviewed and documented by the implementer. The implementer then books the patient for an urgent appointment with the physician and/or nurse practitioner and/or consults with the physician and/or nurse practitioner for further direction on patient care, in a timely manner as per usual practice with urgent calls.</p>	
Consent:	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Title:
<ol style="list-style-type: none"> 1. Patients (female 12 years of age and older) of Thames Valley Family Health Team. 2. The implementer obtains verbal consent from patient or substitute decision maker prior to the implementation of care. 	

**Guidelines for Implementing the Order/
Procedure:**

Appendix Attached: Yes No

Title: [Appendix 18 - Order Treatment Table for Lower Uncomplicated UTI](#)

For assessment and treatment of patients who meet the Indications described above:

- The implementer assesses the patient for symptoms of Lower Uncomplicated UTI according to the new assessment tool located in Appendix 17
- Prior to prescribing, ensure that the patient has normal liver and kidney function (ALT, ALP, Bilirubin, eGFR, Creatinine). If there are no results on the chart over the past 12 months, the patient should be asked if they were ever told that they have abnormal kidney or liver function.
- Prior to prescribing an antibiotic, ensure that the patient is not taking any other medications that may interact with an antibiotic using an interaction checker such as LexiComp or Medscape
- The implementer assesses the patient for allergies to antibiotics and documents in the EMR any previously undocumented allergies. An antibiotic is prescribed as per the attached **Order Treatment Table for Lower Uncomplicated UTI (Appendix 18)**, and a prescription is provided as per usual standard with the family physician or on-call physician's name on the prescription.
- The implementer instructs patient to increase or maintain sufficient fluid intake
- The implementer advises the patient that if symptoms do not resolve or worsen within 2 to 3 days to set up an appointment with the physician or call the implementer.
- The implementer sends urine sample for Culture and Sensitivity (C&S) as needed (e.g. Lower uncomplicated UTI within last 6-12 months, when prescribing 2nd line treatment, or when previous similar symptoms were accompanied with a positive urine culture or when deemed necessary.). Ensure that patient's provider is notified if C&S is ordered.
- If the patient is eligible to be treated under the directive but cannot tolerate or has contraindications to all the listed medications under this directive, the patient will be referred to the MD/NP.

References:

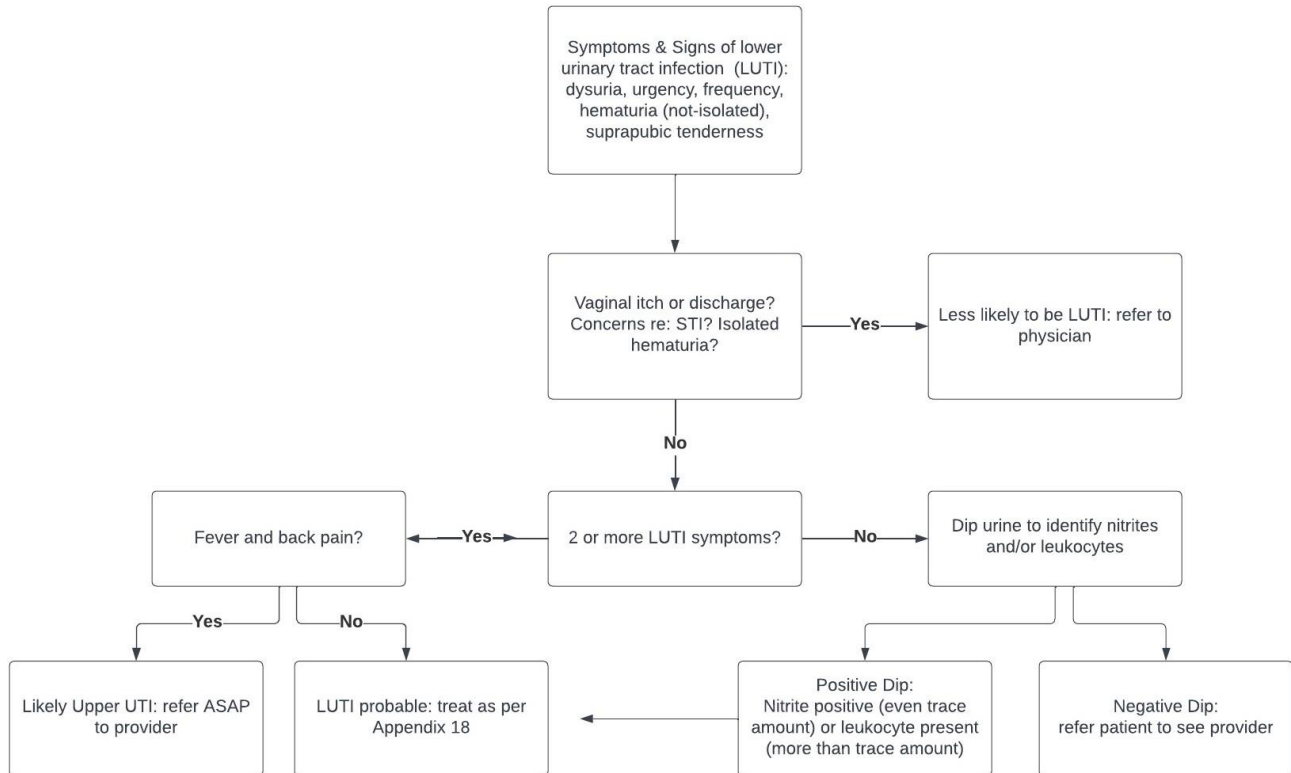
- [Mazzulli, T. Diagnosis and management of simple and complicated urinary tract infections \(UTIs\). The Canadian Journal of Urology. 2012;19\(S1\): 42-48.](#)
- Complicated Urinary Tract Infection (UTI). DynaMed. Accessed August 15, 2023.
- Uncomplicated Urinary Tract Infection (UTI) (Pyelonephritis and Cystitis). DynaMed. Accessed August 15, 2023.
- [Bent S et. Does this woman have an acute uncomplicated urinary tract infection? JAMA. 2002;287\(20\):2701-2710](#)
- Acute simple cystitis in women – Up to Date. Accessed August 17, 2023.
- Is booking an urgent UTI appointment the best sign of a UTI?. Tools for Practice. Retrieved from [Tools for Practice \(gomainpro.ca\) Accessed August 17, 2023.](#)

Documentation and Communication:	Appendix Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Title: Appendix 19 – Sample Prescription for Antibiotics
<ol style="list-style-type: none"> Documentation in the patient’s medical record needs to include the name and number of the directive, name of the implementer (including credential), and name of the physician/authorizer responsible for the directive and patient. Information regarding implementation of the procedure and the patient’s response should be documented in the patient’s medical record, in accordance with standard documentation practice. Standard documentation is recommended for prescriptions, requisitions, and requests for consultation. * <p>* Potter, P.A. & Perry, A.G. (2006). Fundamentals of Nursing. St. Louis: Mosby. College of Nurses of Ontario (2008). CNO Practice Standard: Documentation</p>	
Review and Quality Monitoring Guidelines:	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Title:
<ol style="list-style-type: none"> The Directive remains in force until and unless amendment occurs. Review will occur biennially. In case the Medical Director identifies the need to change the Medical Directive, at least one TVFHT member of the implementing disciplines will be consulted. At any such time that issues related to the use of this directive are identified, the team must act upon the concerns immediately by identifying these concerns to the Medical Director. The Medical Director will review these concerns and consult with at least one TVFHT member of the implementing disciplines, before necessary changes are made. If new information becomes available between routine renewals, and particularly if this new information has implications for unexpected outcomes, the directive will be reviewed by the Medical Director and a minimum of one TVFHT member of the implementing disciplines. 	
Approving Physician(s)/Authorizer(s):	Appendix Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Title:
Authorize Approval Form signed in HR Downloads.	



Appendix 17- Assessment Tool UTI

UTI Symptom Flow Chart





Appendix 18- Order Treatment Table for Lower Uncomplicated UTI in Non-Pregnant Females 12 years of age and older

TREATMENT TYPE	ORDER	NOTES
<u>First Line</u>	Nitrofurantoin: <ul style="list-style-type: none"> • nitrofurantoin monohydrate macrocrystals (MacroBID) 100mg BID for 5 days 	<p>Based on 2022 Lifelabs Walk-in Antibiogram for SWLHIN, and its effectiveness against Enterococcus (second most common UTI pathogen)</p> <p>“Nitrofurantoin should be avoided if there is suspicion for early pyelonephritis or if the creatinine clearance is <30 mL/minute. Observational studies have suggested that the agent is effective and safe with mild renal impairment, even in older women” (Acute simple cystitis in women - UpToDate). Creatinine clearance can be estimated by using the Cockcroft-Gault Equation and may be different than reported eGFR on laboratory results.</p>
<u>Second Line</u>	Fosfomycin 3g ONCE – single dose	<p>Fosfomycin is not indicated in patients under 18 years of age Oral powder: mix with 3 to 4 oz (90 to 120 mL) cool water before ingesting, do not administer in dry form or mix with hot water</p>
	Trimethoprim/Sulfamethoxazole (TMP/SMX) 160/800 mg BID (i.e. 2 Single Strength tabs BID or 1 Double Strength (DS) tab BID for 3 days)	<p>Caution: avoid TMP/SMX in patients taking an ACEi/ARB, especially in older adults (risk of hyperkalemia)</p>
	Trimethoprim 100mg bid or 200mg once daily for 3 days	<p>Caution: avoid TMP/SMX in patients taking an ACEi/ARB, especially in older adults (risk of hyperkalemia)</p>

NOTE: if patient has been exposed to antibiotics within the past 3 months, consider 1) Delaying antimicrobial therapy while awaiting urine culture results with monitoring of worsening of symptoms, or 2) choosing treatment antibiotic that is different from the antibiotic previously exposed to minimize treatment failure due to bacterial resistance

*adapted from Anti-infective Guidelines for Community-acquired Infections 2019 Ed., 2022 Lifelabs

References:

1. Ontario College of Pharmacists/Public Health Ontario (2022). Assessment and prescribing algorithm for uncomplicated urinary tract infection (cystitis) <https://www.ocpinfo.com/wp-content/uploads/2022/12/assessment-prescribing-algorithm-urinary-tract-infection-english.pdf>
2. Huttner A, Kowalczyk A, Turjeman A, et al. Effect of 5-Day Nitrofurantoin vs Single-Dose Fosfomycin on Clinical Resolution of Uncomplicated Lower Urinary Tract Infection in Women: A Randomized Clinical Trial. JAMA. 2018;319(17):1781–1789. doi:10.1001/jama.2018.3627
3. Urinary Tract Infection. In RxTx (Online).Canadian Pharmacists Association; revised April 12 2021. <https://www.myrxtx.ca>
4. LexiComp Online

Appendix 19 – Sample Prescription for Antibiotics and Lab Requisition

Recommended Format for a Prescription or Requisition Completed Pursuant to a Directive

Antibiotic Prescription

Medical Directive # 018

A prescription or requisition for laboratory specimen complete pursuant to a medical directive must include:

- Name and Number of the Directive
- Name of Authorizer
- Name and Signature of the Implementer

The following sample illustrates the recommended format for including this information. The format readily signifies to pharmacists that they have the proper order, permitting them to dispense the prescribed medication, in accordance with legislative and regulatory requirements. Should there be questions about the prescription the pharmacist would contact the implementer. If questions cannot be resolved the physician or authorizer would be contacted for clarification. The physician or authorizer is recorded as the prescriber. Where requested a copy of the medical directive can be forwarded to the pharmacist. The sample prescription is appended to the directive.

The same convention would apply to requisitions received by medical laboratory technicians that are completed pursuant to a directive.

Dr. J.D. Authorizer, MD, CCFP.
Thames Valley Family Health Team
6-1385 North Routledge Park, London ON
N6H 5N5
519-473-0530



Date: March 1, 2010
Patient: Christa Jones, 100 Main Street, London

Macrobid 100mg PO BID for 5 days
Indication: Urinary tract infection

(Signature)

Dr. J.D. Authorizer, MD, CCFP /Jane Smith RN
(Jane Smith RN, TVFHT 018)

Medical Directive Available at: <https://thamesvalleyfht.ca/medical-directives>

 Ontario Ministry of Health and Long-Term Care Laboratory Requisition Requisitioning Clinician / Practitioner		Laboratory Use Only	
Name _____ Address _____		Clinician/Practitioner's Contact Number for Urgent Results () _____ Service Date: YYYY mm dd	
Clinician/Practitioner Number _____	CPSO / Registration No. _____	Health Number _____	Version _____ Sex <input type="checkbox"/> M <input type="checkbox"/> F
Check (✓) one: <input type="checkbox"/> OHP/Insured <input type="checkbox"/> Third Party / Uninsured <input type="checkbox"/> WSIB		Province/Other Provincial Registration Number _____	Date of Birth: YYYY mm dd
Additional Clinical Information (e.g. diagnosis) _____		Patient's Telephone Contact Number () _____	
<input type="checkbox"/> Copy to: Clinician/Practitioner Last Name _____ First Name _____		Patient's Last Name (as per OHP Card) _____	
Address _____		Patient's First & Middle Names (as per OHP Card) _____	
Address _____		Patient's Address (including Postal Code) _____	
Note: Separate requisitions are required for cytology, histology / pathology and tests performed by Public Health Laboratory			
x Biochemistry Glucose <input type="checkbox"/> Random <input type="checkbox"/> Fasting HbA1C Creatinine (eGFR) Uric Acid Sodium Potassium ALT Alk. Phosphatase Bilirubin Albumin Lipid Assessment (includes Cholesterol, HDL-C, Triglycerides, calculated LDL-C & Cholesterol-HDL-C ratio; individual lipid tests may be ordered in the "Other Tests" section of this form) Albumin / Creatinine Ratio, Urine Urinalysis (Chemical) Neonatal Bilirubin Child's Age: _____ days _____ hours Clinician/Practitioner's tel. no. () _____ Patient's 24 hr telephone no. () _____ Therapeutic Drug Monitoring: Name of Drug #1 _____ Name of Drug #2 _____ Time Collected #1 _____ hr. #2 _____ hr. Time of Last Dose #1 _____ hr. #2 _____ hr. Time of Next Dose #1 _____ hr. #2 _____ hr.		x Hematology CBC Prothrombin Time (INR) Immunology Pregnancy Test (Urine) Mononucleosis Screen Rubella Prenatal: ABO, RhD, Antibody Screen (titre and ident. if positive) Repeat Prenatal Antibodies Microbiology ID & Sensitivities (if warranted) Cervical Vaginal Vaginal / Rectal - Group B Strep Chlamydia (specify source): GC (specify source): Sputum Throat Wound (specify source): Urine Stool Culture Stool Ova & Parasites Other Swabs / Pus (specify source):	
		x Viral Hepatitis (check one only) Acute Hepatitis Chronic Hepatitis Immune Status / Previous Exposure Specify: <input type="checkbox"/> Hepatitis A <input type="checkbox"/> Hepatitis B <input type="checkbox"/> Hepatitis C or order individual hepatitis tests in the "Other Tests" section below	
		Prostate Specific Antigen (PSA) <input type="checkbox"/> Total PSA <input type="checkbox"/> Free PSA Specify one below: <input type="checkbox"/> Insured - Meets OHP eligibility criteria <input type="checkbox"/> Uninsured - Screening: Patient responsible for payment	
		Vitamin D (25-Hydroxy) <input type="checkbox"/> Insured - Meets OHP eligibility criteria: osteopenia, osteoporosis, rickets, renal disease, malabsorption syndromes, medications affecting vitamin D metabolism <input type="checkbox"/> Uninsured - Patient responsible for payment	
		Other Tests - one test per line	
<i>I hereby certify the tests ordered are not for registered in or out patients of a hospital.</i> Authorizer: Dr. Smith Implementer: Jane Doe, RN TVFHT medical directive #001 x  _____ October 4, 2021 Clinician/Practitioner Signature Date		Specimen Collection Time 24 hour clock _____ Date yyyy/mm/dd _____ Fecal Occult Blood Test (FOBT) (check one) <input type="checkbox"/> FOBT (non OCC) <input type="checkbox"/> Colon-Cancer-Check FOBT (OCC) no other test can be ordered on this form	
		Laboratory Use Only	