

Student Name: Catharine Cardellino
 Medical Diagnosis/Disease: Urinary Tract Infection

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures
 Kidneys = Cleanse blood of toxins & transform waste into urine
 Ureters = carry urine from kidneys to bladder
 Bladder = stores urine
 Urethra = duct for urine

Pathophysiology of Disease
 Defenses of UTI include normal voiding w/ complete emptying of the bladder, ureterovesical junction competence, ureteral peristaltic activity. Urine is antibacterial (pH less than 6.0), high urea concentration, abundant glycoproteins interfere w/ bacterial growth & change in defense = ↑ UTI risk. Organisms introduced via ascending route of urethra = ↑ UTI
 Streptococci, enterococci, Staphylococcus saprophyticus, gram negative bacteria

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics
Labs
 - dipstick urinalysis to identify nitrites
 - WBCs/CBCs
 - sensitivity testing to determine bacteria susceptibility to antibiotics
Additional Diagnostics
 - x-rays to check for obstructions

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors
 - shorter female urethra
 - aging - diabetes
 - HIV - obstruction
 - foreign bodies (catheter) - renal impairment - stones
 - constipation - urine delay
 - voiding dysfunction - pregnancy
 - multiple partners - menopause
 - poor hygiene - spermicide

Signs and Symptoms
 - painful urination
 - dysuria
 - frequency
 - suprapubic discomfort
 - blood/clotment
 - fever
 - chills
 - flank pain

NCLEX IV (7): Reduction of Risk

Possible Therapeutic Procedures
Non-surgical
 - suppressive therapy
 - antibiotics
Surgical
 - cystoscopy

Prevention of Complications
 (What are some potential complications associated with this disease process?)
 - repeated infections
 - kidney damage
 - sepsis

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management
 - antibiotics (3 days uncomplicated 7-14 complicated)
 - urinary analgesics

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
 - drinking adequate fluids
 - hygiene
 - diversional pain techniques
 - sitz bath
 - warm compress

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?
 - pain
 - acute confusion
 - fear of sepsis

Client/Family Education

List 3 potential teaching topics/areas
 • importance of drinking fluids
 • personal hygiene
 • voiding when necessary/not holding it in

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
 (Which other disciplines do you expect to share in the care of this patient?)
 - Primary care provider
 - nursing team
 - pharmacy
 - OB/GYN

STUDENT NAME Catharine CardellineMEDICATION Lexofloxacin (IVPB)

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Antibiotic, Fluoroquinolone

PURPOSE OF MEDICATION

Expected Pharmacological Action

Inhibits DNA enzyme gyrase in susceptible microorganisms, bacterial cell replication repair

interferes w/

- Bactericidal

Therapeutic Use

Tx of chronic bronchitis, acute bacterial sinusitis, pneumonia, UTI, skin infections, prostatitis, caused by *S. pneumoniae*, *S. aureus*, *K. pneumoniae*, *E. coli*, *P. mirabilis*, *P. aeruginosa*, *C. pneumoniae*

Complications

- Diarrhea, nausea, abd pain, dizzy/drowsy, headache, eye burning/discomfort

- antibiotic colitis, superinfections, rash/pruritus, blisters, edema, tendonitis, tendon rupture, per. neuropathy, anxiety.

Medication Administration

NO less than 60 min from 250 mg/500 mg

90 min 750 mg

available single dose 20 mL (500 mg) vials premixed w/ D₅W

stable 72 hr room temp, 14 days in fridge

Contraindications/Precautions

CNS disorders, seizure disorders, renal impairment, bradycardia, QT, cerebral arteriovenous shunt, QT interval prolongation, diabetes, tendonitis/rupture risk,

Nursing Interventions

- monitor serum glucose, renal function, bowel activity

- report rash, itching, photosensitivity, oral mucosal changes, fever, N/V

monitor pain, tendon popping

Interactions

- May ↓ BCN effects

- Antacids (Ca, magnesium, iron), sucralfate, ↑ gastric decrease absorption

- NSAIDs ↑ CNS stimulation/seizures

- aminocyclone, haloperidol, sotalol ↑ arrhythmias

- ↑ warfarin effect

Client Education

- essential to complete drug therapy

- report diarrhea

- tendon inflammation may occur

- report nervous system problems

- Do not take aluminum/magnesium antacids, zinc, iron 2 hrs before/6 hrs after

- Drink fluids

Evaluation of Medication Effectiveness

- infection is resolved

- no dx change

STUDENT NAME _____

MEDICATION Lorazepam

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Benzodiazepine (IV), anti-anxiety, anticonvulsant
PO

PURPOSE OF MEDICATION

Expected Pharmacological Action

Enhances action of neurotransmitter gamma aminobutyric acid (GABA) in CNS, affecting memory, motor sensory, and cognitive function

Therapeutic Use

mgmt of anxiety disorders, short term relief of symptoms, anxiety associated w/ depressive symptoms, \neq of alcohol withdrawal, partial complex seizures, antiemetic, premed, rapid tranquilization,

Complications

Abrupt withdrawal may cause restlessness, irritability, insomnia, tremor, abd. cramping, diaphoresis, vomiting, seizures

Medication Administration

PO - give w/ food, tablets may be crushed, dilute oral solution
- initially O.S - 2 mg q4-6hr, 10 mg d day
- Antidote: Flumazenil

Contraindications/Precautions

- acute narrow angle glaucoma, resp depression
- neonates, renal/hepatic impairment, compromised pulm function, depression, CNS depressant use, suicidal ideation, history of drug abuse, dependency,

Nursing Interventions

- PT remains reoriented following parenteral admin to \downarrow hypotension
- assess motor responses & drug seeking behavior
- monitor BP, RR, HR
- screen for worsening mood

Interactions

- valproic acid = \uparrow concentration/effects
- alcohol, CNS depressants = \uparrow CNS depression
- herbs w/ sedative properties (chamomile, kava kava, valerian) = \uparrow CNS depression
- Therapeutic serum = 50-240 ng/mL

Client Education

- drowsiness subsides w/ continued therapy
- avoid tasks that require alertness till response is established
- Smoking \downarrow effect
- do not abruptly stop
- contraception recommended
- seek immediate attention for suicidal thoughts/worsening mood

Evaluation of Medication Effectiveness

calm face, decreased restlessness, \downarrow insomnia
 \downarrow seizure related symptoms