

NR601 Final Exam Study Guide

Genitourinary Disorders Urinary System Disorders

1. Urinary Tract Infections (UTIs)

- **Etiology:** Bacterial infection, commonly caused by *Escherichia coli*.
- **Symptoms:** Dysuria, frequent urination, urgency, suprapubic pain, hematuria.
- **Diagnosis:** Urinalysis, urine culture.
- **Treatment:** Antibiotics, increased fluid intake.

2. Kidney Stones (Nephrolithiasis)

- **Etiology:** Crystallization of minerals in the urine, such as calcium oxalate.
- **Symptoms:** Severe flank pain, hematuria, nausea, vomiting.
- **Diagnosis:** CT scan, ultrasound, urinalysis.
- **Treatment:** Pain management, hydration, lithotripsy, surgical removal.

3. Chronic Kidney Disease (CKD)

- **Etiology:** Diabetes, hypertension, glomerulonephritis.
- **Symptoms:** Fatigue, edema, hypertension, proteinuria.
- **Diagnosis:** Blood tests (eGFR), urine tests, imaging studies, kidney biopsy.
- **Treatment:** Blood pressure control, diabetes management, dialysis, kidney transplantation.

4. Bladder Cancer

- **Etiology:** Smoking, chemical exposure, chronic bladder inflammation.
- **Symptoms:** Hematuria, pelvic pain, frequent urination.
- **Diagnosis:** Cystoscopy, biopsy, imaging (CT, MRI).
- **Treatment:** Surgery, chemotherapy, radiation therapy, immunotherapy.

Male Genital Disorders

1. Benign Prostatic Hyperplasia (BPH)

- **Etiology:** Age-related prostate enlargement.
 - **Symptoms:** Urinary retention, weak stream, nocturia, frequent urination.
 - **Diagnosis:** Digital rectal exam, PSA test, ultrasound.
 - **Treatment:** Medications (alpha-blockers, 5-alpha-reductase inhibitors), surgery (TURP).

2. Prostate Cancer

- **Etiology:** Genetic factors, age, diet, lifestyle.
 - **Symptoms:** Often asymptomatic early; later stages may include urinary symptoms, bone pain.
 - **Diagnosis:** PSA test, biopsy, imaging (MRI, bone scan).
 - **Treatment:** Surgery, radiation therapy, hormone therapy, chemotherapy.

3. Erectile Dysfunction (ED)

- **Etiology:** Vascular disease, diabetes, psychological factors, medications.
 - **Symptoms:** Inability to achieve or maintain an erection.
 - **Diagnosis:** Physical examination, blood tests, nocturnal penile tumescence testing.
 - **Treatment:** PDE5 inhibitors (e.g., sildenafil), lifestyle changes, psychotherapy, vacuum devices.

Female Genital Disorders

1. Polycystic Ovary Syndrome (PCOS)

- **Etiology:** Hormonal imbalance, genetic factors.
 - **Symptoms:** Irregular periods, hirsutism, acne, obesity, infertility.
 - **Diagnosis:** Clinical history, ultrasound, blood tests (hormone levels).
 - **Treatment:** Lifestyle changes, medications (metformin, oral contraceptives), fertility treatments.

2. Endometriosis

- **Etiology:** Growth of endometrial tissue outside the uterus.
 - **Symptoms:** Pelvic pain, dysmenorrhea, infertility, dyspareunia.
 - **Diagnosis:** Laparoscopy, imaging (ultrasound, MRI).
 - **Treatment:** Pain management, hormonal therapy, surgery.

3. Pelvic Inflammatory Disease (PID)

- **Etiology:** Bacterial infection, often sexually transmitted (e.g., chlamydia, gonorrhea).
 - **Symptoms:** Pelvic pain, fever, abnormal vaginal discharge, dyspareunia.
 - **Diagnosis:** Pelvic exam, cervical cultures, ultrasound.
 - **Treatment:** Antibiotics, hospitalization for severe cases.

General Management Principles

- **Prevention:** Includes lifestyle modifications, safe sexual practices, regular medical check-ups, and vaccinations (e.g., HPV vaccine).
- **Patient Education:** Inform patients about the importance of symptom recognition, adherence to prescribed treatments, and lifestyle changes.
- **Multidisciplinary Approach:** Collaboration with urologists, nephrologists, gynecologists, and primary care providers to ensure comprehensive care.

Conclusion

The urogenital symptoms associated with postmenopausal estrogen deficiency were previously referred to as vulvovaginal atrophy but now as the genitourinary syndrome of menopause (GSM). GSM includes genital dryness, burning, and irritation associated with diminished lubrication, as well as pain on penetration.

Therapy for GSM is first vaginal moisturizers; topical estrogen may be used for severe or persistent symptoms.

○ Urinary incontinence - know the types and how to differentiate them; predisposing factors for each type; medications that contribute to this issue; treatments.

and all older persons should be routinely screened.