

Diagnosis: Urolithiasis

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	Pathophysiology Summary	Signs and Symptoms (subjective)	Physical Assessment Findings (objective)	Pharmacologic Recommendations
<p>Diagnosis #1: Urolithiasis</p>	<p>Urolithiasis, also known as kidney stones or renal calculi, is a concentration of crystalized minerals that develop in the kidney and/or ureters. They tend to form from excessive amounts of relatively insoluble salts. The most common kidney stones are formed from calcium oxalate and calcium phosphate. In some occasions they may be formed from uric acid (due to acidic urine), struvite (due to urinary tract infections) or cysteine (due to rare genetic disorder) (Savitsky, 2018). Kidney stones vary in size, which depends on the amount of deposit cumulation occurring in the kidney and/or ureters.</p> <p>Risk factors: There are numerous of risk factors that contributes in the development of kidney</p>	<p>Some patient's may be asymptomatic because they could pass the stone unnoticed in the urine without complication and/ or pain.</p> <p>Patient's that experience symptoms will present with:</p> <ul style="list-style-type: none"> • Sharp, stabbing pain to mid-back may occur every few minutes and last from 20 minutes to an hour • Pain lower abdomen, groin or genital areas • Nausea/ vomiting • Frequent urge to urinate • Burning pain during urination 	<p>Assess patient and family history of kidney disease. Assess fluid intake to rule out dehydration. Upon physical examination patient will present:</p> <ul style="list-style-type: none"> • guarded due to pain (Chung, 2017) • may have costovertebral angle tenderness upon palpitation • hematuria (upon urinalysis) • tachycardia due to pain • cool moist skin <p>Diagnostic testing:</p> <ul style="list-style-type: none"> • CBC with differential • BMP • Urinalysis- hematuria, ph levels and information of the probable type of kidney stones (Schub & Marcel, 2017) • 24-hour urine 	<p>Depending on the size and location of the kidney stone treatment will vary between patients. Most of the small kidney stones will eventually pass on their own with the assistance of varies conservative measures.</p> <ul style="list-style-type: none"> • Encourage hydration- drink at least 2-3 quarters of water per day to help flush kidney stone • Straining urine- use a special cup to strain urine to help patient monitor the expulsion of the stone <p>Medications: Pain medication may help with discomfort until the patient passes the kidney stone.</p> <ul style="list-style-type: none"> • NSAID (first line therapy) ibuprofen, ketorolac, naproxen- Classification of drug: analgesic/ anti-inflammatory <p>Mechanism of action: Inhibits cyclooxygenase enzymes COX-1 and COX-2 which makes an anti-inflammatory and</p>