UBA AMALACHUKWU

18/MHS07/051

PHARMACOLOGY

DISEASES OF THE RENAL SYSTEM

**Kidney stones** are clumps of calcium oxalate that can be found anywhere in the urinary tract. Kidney stones form when chemicals in the urine become concentrated enough to form a solid mass, according to the Cleveland Clinic. They can cause pain in the back and sides, as well as blood in the urine. Many kidney stones can be treated with minimally invasive therapy, such as extracorporeal shock wave lithotripsy, which disintegrates the kidney stones with shock waves.

**Interstitial cystitis (IC)** also called painful bladder syndrome, is a chronic bladder condition, primarily in women, that causes bladder pressure and pain and, sometimes, pelvic pain to varying degrees, according to the Mayo Clinic. It can cause bladder scarring, and can make the bladder less elastic. While the cause isn't known, many people with the condition also have a defect in their epithelium, the protective lining of the bladder. Prostatitis is a swelling of the prostate gland and, therefore, can only occur in men. Often caused by advanced age, symptoms include urinary urgency and frequency, pelvic pain and pain during urination.

**Acute Renal Failure** refers to a sudden and usually temporary loss of kidney function that may be so severe that RRT is needed until kidney function recovers. Even though acute renal failure can be a reversible condition, it carries a high mortality rate. Acute renal failure is a prominent feature of major earthquakes, where many suffer from crush syndrome accompanied by severe dehydration and rapid release of muscle cell contents, including potassium. Kidney function shuts down unless body fluid and blood pressure are rapidly corrected and frequent haemodialysis is available. Recent earthquake rescues in the Islamic Republic of Iran and Turkey have demonstrated the benefits of rapid hydration and dialysis.

**Nephroptosis (Floating Kidney)** Nephroptosis is an abnormal condition in which the kidney drops down into the pelvis when the patient stands up. It is more common in women than in men. It has been one of the most controversial conditions among doctors in both its diagnosis and its treatments. It is believed to result from deficiency of supporting perirenal fasciae. The renal fascia is a layer of connective tissue encapsulating the kidneys and the suprarenal glands. The deeper layers below the renal fascia are, in order, the adipose capsule of the kidney (or perirenal fat), the renal capsule and finally the parenchyma of the renal cortex. The spaces about the kidney are typically divided into three compartments: the perinephric space and the anterior and posterior pararenal spaces.

**Kidney stones** are another common kidney problem. They occur when minerals and other substances in the blood crystallize in the kidneys, forming solid masses (stones). Kidney stones usually come out of the body during urination. Passing kidney stones can be extremely painful, but they rarely cause significant problems.

**Glomerulonephritis** is an inflammation of the glomeruli. Glomeruli are extremely small structures inside the kidneys that filter the blood. Glomerulonephritis can be caused by infections, drugs, or congenital abnormalities (disorders that occur during or shortly after birth). It often gets better on its own.