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DEPARTMENT: Nursing Science

MATRIC NUMBER: 18/mhs02/049

LEVEL: 200 Level

URINALYSIS:

A urinalysis is a test of your urine. A urinalysis is used to detect and manage a wide range of disorders, such as urinary tract infections, kidney disease and diabetes. A urinalysis involves checking the appearance, concentration and content of urine. Abnormal urinalysis results may point to a disease or illness.

A urinalysis is a common test that's done for several reasons:

- ❖ **To check your overall health** - Your doctor may recommend a urinalysis as part of a routine medical exam, pregnancy checkup, pre-surgery preparation, or on hospital admission to screen for a variety of disorders, such as diabetes, kidney disease and liver disease.
- ❖ **To diagnose a medical condition** - Your doctor may suggest a urinalysis if you're experiencing abdominal pain, back pain, frequent or painful urination, blood in your urine, or other urinary problems. A urinalysis may help diagnose the cause of these symptoms.
- ❖ **To monitor a medical condition** - If you've been diagnosed with a medical condition, such as kidney disease or a urinary tract disease, your doctor may recommend a urinalysis on a regular basis to monitor your condition and treatment.

Urinalysis is often used:

- prior to surgery
- as a preemptive screening during a pregnancy checkup
- as part of a routine medical or physical exam

Your doctor may also order this test if they suspect that you have certain conditions, such as:

- diabetes
- kidney disease
- liver disease
- urinary tract infection

If you already have a diagnosis for any of these conditions, your doctor may use urinalysis to check on the progress of treatments or the condition itself.

According to the American Association for Clinical Chemistry, the **average value for urine** pH is 6.0, but it can **range** from 4.5 to 8.0. **Urine** under 5.0 is acidic, and **urine** higher than 8.0 is alkaline, or basic. The urine sample is evaluated in three ways: visual exam, dipstick test and microscopic exam.

Microscopic exam

In the microscopic exam, your doctor looks at drops of your urine under a microscope. They look for:

- abnormalities in your red or white blood cells, which may be signs of infections, kidney disease, bladder cancer, or a blood disorder
- crystals that may indicate kidney stones
- infectious bacteria or yeasts
- epithelial cells, which can indicate a tumor

Dipstick test

For the dipstick test, your doctor inserts a chemically treated plastic stick into your sample. The stick changes color based on the presence of certain substances. This can help your doctor look for:

- bilirubin, a product of red blood cell death
- blood
- protein
- concentration or specific gravity
- changes in pH levels or acidity
- sugars

High concentrations of particles in your urine can indicate that you're dehydrated. High pH levels can indicate urinary tract or kidney issues. And any presence of sugar can indicate diabetes.



Visual exam

Your doctor can also examine the sample for abnormalities, such as:

- clouded appearance, which can indicate an infection
- abnormal odors
- reddish or brownish appearance, which can indicate blood in your urine