

Urinalysis essay



Urinalysis with a reagent strip is a beneficial technique for indicating whether further tests are needed for bladder, kidney or urinary tract infection, pregnancy, dehydration or diabetes only if carried out in an aseptic and patient centred manner. Urinalysis can be broken down into four stages: communication, preparation, testing, and recording results (Kozier, 1998). Urinalysis is executed as part of a routine physical evaluation. It is an inexpensive and easy method to indicate whether further follow up tests may be needed.

These tests may include blood tests for diabetes via secretion of glucose in the urine or blood tests for white blood cell deficiencies via secretion of white blood cells in the urine (Rosdahl, 2003). Other abnormalities that the nurse could be investigating via urinalysis are an indication of the presence of pathogens in the kidney, bladder or urinary tract (Rosdahl, 2003). In the case of an infection, further tests and the use of urinalysis may determine the appropriateness of antibiotic prescription (Simerville, 2005).

An analysis of the solute composition of urine may aid in the diagnosis of dehydration, which may inform the prescription of oral or intravenous dehydration solution (Higgins, 2007). Ransmayr (2008) illustrates that an important part of the process of urinalysis is communication with the patient. It is important to explain to the patient why she is being asked for a sample, this facilitates patient consent and provides recognition of the patient as a person rather than a clinical object.

If the patient is deaf or does not speak English it would be culturally sensitive for the nurse to use an interpreter of the same gender where possible. The

nurse should then make the patient aware of the process behind urinalysis in order to foster cooperation (Ransmayr, 2008). This also maintains patient self esteem; self esteem comes from a feeling of control over the outcome of personal circumstances (Kenworthy, 2002). It is worth noting that communication style will need to be adapted according to the individual (Dougherty, 2008).

From my own experience, the nurse should be especially aware that in the case of dementia patients, the nurse may need to allocate extra time to the communication stage of the process and may need to repeat the reason for the sample several times at regular intervals. The nurse will also have to use short sentences to overcome the confusion that accompanies dementia (Brooker, 2007). This further emphasises that forgetfulness is no reason to ignore dignity (Ransmayr (2008).

Dougherty (2008) further claims that without understanding the nurse has failed to attain consent (Dougherty, 2008). In preparation, patients should be provided with private facilities either access to a clean bathroom or curtains with their own separate clean bed pan for females and urinals for males. Kozier (1998) states that this helps to acknowledge the patient as an individual. Furthermore micturating in a contained environment prevents disease transmission from this potentially infectious substance.

If possible, a nurse of the same gender should be matched with patients to acknowledge any social or religious values. The method for cleaning the genitals in an aseptic manner prior to voiding should be explained to the patient. This needs to be done in a sensitive manner where the reason for

asepsis is made clear (Siviter, 2008). It may be culturally sensitive to some cultures and religions to provide washing facilities not only before taking the sample but also after sampling.

For example, in Hindu religion it is important to provide running water rather than a cleansing wipe or bowl of soapy water (Kenworthy, 2002). Hand washing is the single most effective measure to prevent spread of disease (Rae-Wright, 2006) therefore, prior to handling the specimen it is important that nurses wash their hands. The nurse should use gloves to reduce the transfer of micro-organisms from nurse to urine and vice versa. By reducing the transfer of micro-organisms the nurse is reducing the chance of infection (Rosdahl, 2003).

The routine test of the reagent strip (or dipstick test as it is otherwise known) can be carried out easily on the ward. The stick should be removed from the box without touching the test pads to avoid contamination of the results (Rosdahl, 2003). Once the dipstick has had the required amount of time in the urine the nurse holds it against (but not touching) the colours on the side of the reagent strip packaging for comparison of colours (Kozier, 1998). If there are abnormalities further investigation should take place.

For example, a further sample will be screened under a microscope for the presence of white blood cells or urine Osmolality tests may be carried out to check the fluid and electrolyte balance (Higgins, 2007). If the dipstick test reveals unusual protein results the person may be referred for a computed tomography or magnetic resonance imaging to determine whether the glomerular membrane has been damaged (Brooker, 2007). A further

sensitivity test may be carried out on urine culture in order to determine the best course of antibiotics for the kidney or urinary tract infection (Higgins, 2007).

Therefore, we can see the importance of aseptic techniques to obtain accurate information on the patient's health and future treatment. The final process of urinalysis involves immediate and accurate recording of date, time and type of sample in the nursing notes (Kozier, 1998). This provides accurate transmission of information to laboratory technicians, other nurses and the ward doctor. Furthermore, keeping the notes in an allocated place helps preserve client confidentiality.

Decomposition may affect the test results and thus it should then be kept in a specimen fridge until it is time to transport it to the laboratory (Siviter, 2008). In conclusion, urinalysis carried out using aseptic patient centred care is a beneficial technique for indicating the need for further tests. While taking the sample, the nurse should provide the patient with clear communication and private facilities. In the process of and post testing, samples should be handled in an aseptic manner. After the test has taken place, results should be recorded in a timely and systematic manner.