



SNS COLLEGE OF NURSING

saravanampatti(po),coimbatore-35

Affiliated to The Tamilnadu DR.MGR MEDICAL UNIVERSITY,Chennai

DEPARTMENT OF NURSING

COURSE – 1 ST YEAR B.SC(N)

Subject-Nursing Foundation

UNIT: X- MEETING NEEDS OF PATIENT

TOPIC 2:TYPES AND COLLECTION OF URINE SPECIMEN

TYPES AND COLLECTION OF URINE SPECIMEN



URINE SPECIMEN



- **Urine** is one type of **specimen** that can be easily collected from a patient.
- Urinalysis testing can give the doctor valuable information about many body systems especially kidney function.

❖ Random specimen:

A randomly collected specimen collected at unspecified times and is often more convenient for the patient





SPECIMEN TYPES



❖ First morning specimen or 8 hour specimen:

This **sample** is collected the **first** time the patient urinates in the **morning**.

A **first voided specimen** is the most





SPECIMEN TYPES



❖ Fasting specimen:

A **specimen** obtained from a subject who has abstained from food and possibly water, according to the prescribed amount of time.

❖ 2-hour postprandial specimen:

Postprandial means after a meal. This test is done to see how your body responds to sugar and starch after you eat a meal.



SPECIMEN TYPES



❖ 24 hour (timed) specimen:

A **24-hour urine collection** is done by collecting your **urine** in a special container over a full **24-hour** period. The container must be kept cool until the **urine** is returned to the lab.





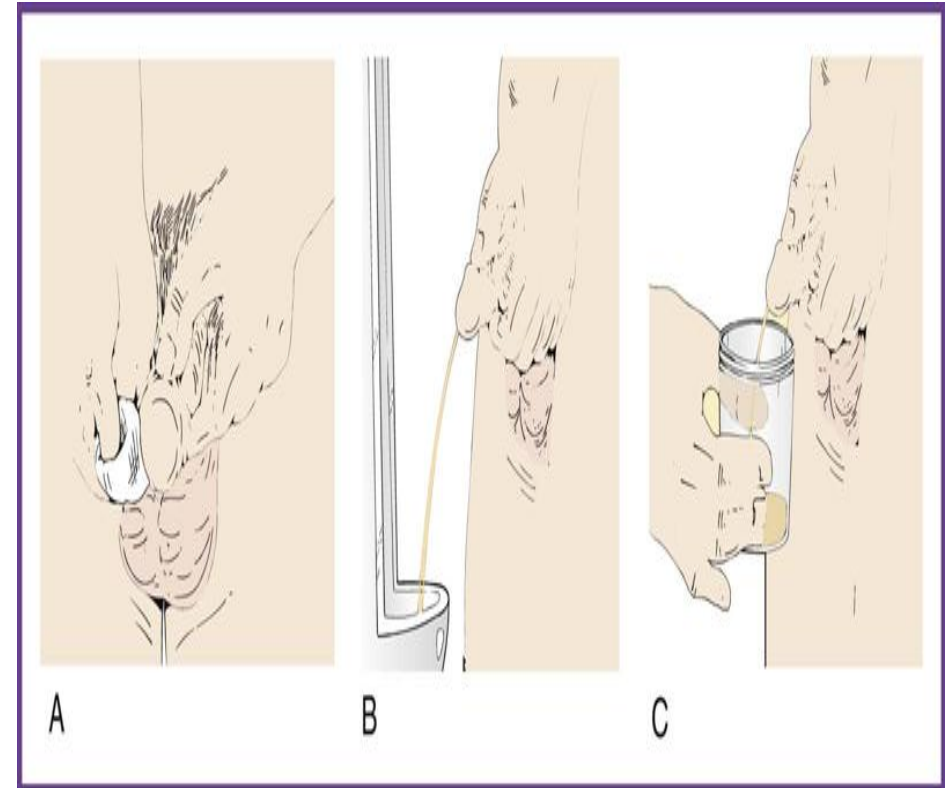
❖ Catheterized specimen:

The **sample** is taken by placing a thin rubber tube (called a **catheter**) through the urethra into the bladder.



❖ Midstream clean catch specimen:

A clean catch urine sample or specimen is one of the least invasive procedures for a urine culture or urinalysis.

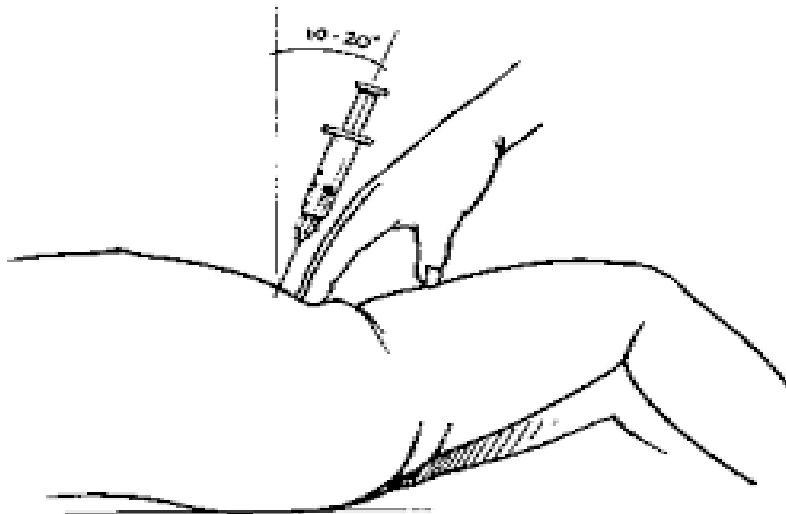
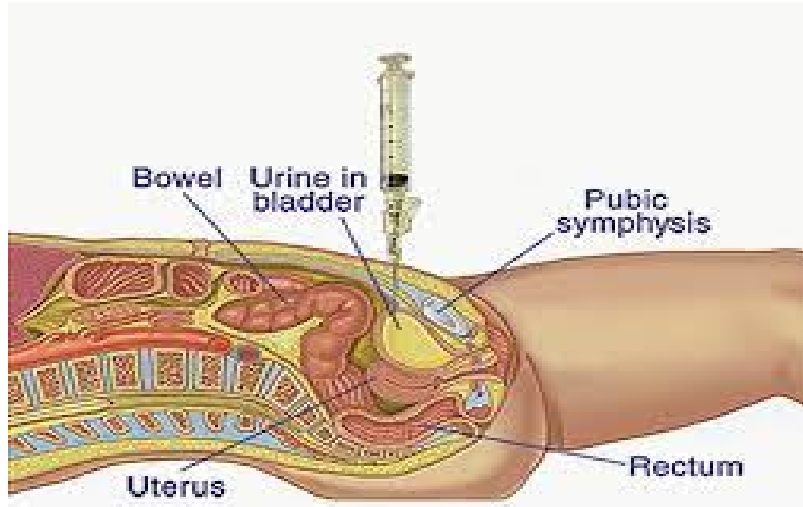




SPECIMEN TYPES



- The **clean catch** method aims to prevent bacteria from the skin of the penis or vagina from contaminating urine **specimen**.



❖ Suprapubic aspiration:

Suprapubic aspiration is a procedure to take a urine sample. It involves putting a needle through the skin just above the pubic bone into the bladder.

It is typically used as a method to collect urine in child less than 2 years of age who is not yet toilet trained in an effort to diagnose a urinary tract infection.





SPECIMEN TYPES



❖ Pediatric specimen:

To **collect a urine sample** from an infant:

Thoroughly wash the area around the urethra (the hole where **urine** flows out). Use the soap, or cleansing wipes that your provider gave you.

SPECIMEN TYPES

You will be given a special bag to collect the urine.

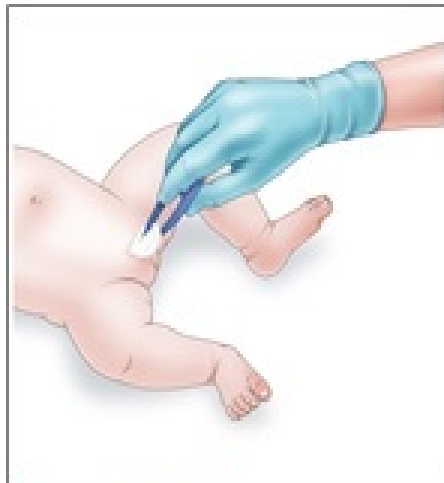


Figure 1: clean



Figure 2: rub



Figure 3: catch



PRINCIPLES



The specimen must be:

- Collected at the right time, correct equipment
- Collected in a way that minimises contamination
- Collected in a way that reduces risk to all staff handling the specimen
- Documented clearly and Stored/transported appropriately



NURSES MUST BE



- Aware of their organisation's policies and explain the purpose of the specimen to the patient and the implication for treatment, and be able to obtain informed consent;
- Aware of standard infection prevention and control principles and understand the importance of accurate record keeping



PRECAUTIONS



- standard infection prevention and control precautions should be followed. These include adhering to:
- Hospital environmental hygiene principles
- Hand hygiene principles
- Use of personal protective equipment
- Safe use and disposal of sharps



EQUIPMENT



- The equipment required will vary according to the specimen so nurses should consult local policies about which container to use. Using an incorrect container can affect the accuracy of results; for example, bacterial swabs contain a transport medium that is incompatible with viruses



GENERAL EQUIPMENT REQUIRED



- Disposable gloves and apron –additional personal protective equipment (gown, mask/ respirator, visor) may be required depending on the specimen; Protective tray to carry equipment;
- Sterile container appropriate for the specimen (consult local policies);



GENERAL EQUIPMENTS



- Laboratory specimen form;
- Polythene transportation bag;
- Biohazard (high-risk) label indicating the danger of infection if the patient is known or suspected to have a Hazard Group 3 pathogen such as hepatitis B, hepatitis C or HIV



CONSENT



- Patients should give informed consent for specimen collection and, as part of the process.
- Inform the patient of the reason for specimen collection, Explain the procedure;
- Assess the patient's understanding, Explain how long it will take for the results to be available and how the patient will receive them;



REQUEST FORM



- Patient's name, date of birth, ward/department and patient identification number
- Type of specimen and the site from which it was obtained;
- Investigation required; Date and time collected;
- Diagnosis, history and reasons for request – for example, diarrhoea and vomiting, rash, pyrexia;



REQUEST FORMS



- Rationale for taking the sample;
- History of antimicrobial drugs prescribed and administered if possible – specimens should be collected before antibiotics are prescribed as they may affect the result;
- Contact details of the health professional ordering the investigation



SAMPLE LABLE



The sample should be labelled with:

- The patient's name and date of birth;
- Ward/department/clinic; Identifier/NHS number;
- Date and time of specimen collection;
- Type and site of specimen;
- High-risk label if required.



TRANSPORTING SPECIMENS



All specimen containers must be transported in a self-sealing polythene bag with two compartments:

- one for the laboratory request form and one for the specimen. Specimens should be sent to the laboratory as soon as possible after collection as a delay may adversely affect the results



PROCEDURE



- Obtain informed consent and Explain about how to avoid contaminating the specimen. Check whether the patient needs any help.
- Identify a suitable location for example a clean toilet, and ensure the patient's privacy
- Wash your hands and put on gloves and an apron if you are accompanying the patient or handling the specimen.



PROCEDURE



- Ask the patient to wash their hands with soap and water and dry them, to reduce the risk of the specimen being contaminated.
- Uncircumcised men should retract their foreskin to clean around their urethral meatus. Women should separate their labia with their fingers and clean around the urethral meatus, ensuring they wipe away from the urethra towards the anus



PROCEDURE



- Instruct male patients to keep the foreskin retracted and direct the first part of the urine void (15-30ml) into the toilet to wash away any bacteria colonising the distal end of the urethra
- Women should part their labia with their fingers while passing the first 15-30ml of urine into the toilet



PROCEDURE



- The patient should collect the middle part of the stream in a wide-neck sterile container without interrupting micturition.
- The patient can then void the remaining urine into the toilet.
- Transfer the specimen into a sterile container and seal the lid.
- Ask the patient to wash their hands.



PROCEDURE



- Remove your gloves and wash your hands.
- Complete the documentation on the specimen pot, request form and in the patient's notes,
- Place the specimen and request form in the specimen bag and decontaminate your hands with either alcohol hand rub or soap and water.



PROCEDURE



- Send the sample to the laboratory immediately or refer to organisational policy if storage is required.
- If the patient needs help, follow standard infection prevention and control precautions, and wear gloves and an apron when collecting and handling. Patients may find the procedure and it is important to protect their privacy and dignity



ASSESSMENT



1. What is mid stream urine?

a) Middle urine b) starting urine c) last urine

2. Catherized urine specimen can be collected by?

a) Urine bag b) catheter c) bladder



REFERENCES



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