

A Descriptive Study to Assess the Knowledge and Practices Among Staff Nurses Regarding Safe Urine Sample Collection in a Selected Hospital in Delhi, India

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Abstract

Urine collection is a quick diagnostic test to assess kidney function. This study investigates the knowledge and practices of nurses regarding urine sample collection, a fundamental aspect of diagnostic procedures. Urine samples are critical for various tests, yet proper collection techniques are essential to ensure accuracy and prevent contamination. The study's objectives were (a) To assess the level of knowledge among staff nurses regarding safe urine sample collection, and (b) To observe and record the practice among staff nurses regarding safe urine sample collection **Method:** The research approach selected for this study was quantitative. The sample of 60 staff nurses' staff from the wards, casualty/emergency, and intensive care unit (ICU) in Hakeem Abdul Hameed Centenary (HAHC) Hospital, New Delhi, was selected by convenient sampling technique. The instruments used for this study were a structured knowledge questionnaire and an observation checklist. The pilot study was conducted to ascertain the feasibility of the study **Result and Conclusion:** The result of the study revealed that the majority (96.66%) of nursing staff had poor knowledge (70.50%) had poor practice in random urine collection, The mean practice score for random urine sample collection was 8.41 ± 1.93 , (76.60%) nursing staff had poor practice in urine culture and sensitivity. The mean practice score was 8.06 ± 2.07 . 69.23% had poor practice scores regarding indwelling catheter urine collection. The mean score of practice regarding indwelling catheter urine collection was 7.53 ± 2.01 .

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INTRODUCTION

Urine sample collection is a routine but critical procedure in medical diagnostics and is essential for the accurate assessment and diagnosis of various health conditions. Despite its importance, the quality of urine samples can be significantly affected by the technique used during collection. Staff nurses play a key role in this process and their adherence to proper procedures is vital for ensuring sample integrity and diagnostic reliability. Understanding the knowledge and practices of staff nurses regarding urine sample collection is crucial for identifying potential areas for improvement. Errors in the sample collection can have serious consequences. For instance, inaccuracies in

measuring myokines when assessing cardiovascular diseases may lead to missed diagnoses [1]. Similarly, mixing thawed plasma can lead to potential diagnostic errors [2]. By identifying and reducing these errors through strict adherence to institutional policies, healthcare professionals can ensure more reliable information, leading to higher-quality patient care [3]. Recently, there has been a notable reduction in analytical errors in clinical laboratories. Nonetheless, it is estimated that up to 62% of errors occur during the pre-analytical phase [4]. The pre-analytical phase encompasses specimen collection, storage, separation, and transport. Errors during this phase are primarily due to human error, and most of these errors are preventable [5, 6]. This research aimed to assess nurses' comprehension of best practices and observe their adherence to them in clinical settings. This study aimed to enhance training programs and improve patient care outcomes by highlighting discrepancies between knowledge and practice. The results of this study will provide insights into current practices and inform strategies to address knowledge gaps, ultimately contributing to more accurate diagnostic results and improved patient safety.

Joshy Meenu and Jose Meera et al. conducted a research study to assess the knowledge of practice regarding urinary catheter management among staff nurses in a selected hospital at Mangaluru, they adopted a quantitative research approach with non-experimental descriptive design to assess the knowledge of 100 staff nurses regarding catheter management at selected hospitals of Mangaluru by convenient sampling Results: The study results that the majority of the staff nurses (82%) had very good knowledge, 10% had good knowledge and 8% had excellent knowledge about catheter management. There was a significant association between knowledge and sources of information ($p = 0.001 < 0.05$). There was no significant correlation between knowledge scores and other demographic variables [7].

Norliza Binti Arifin et al. conducted a study on the knowledge and compliance of staff nurses in collecting urine cultures from patients with indwelling catheters. A total of 118 nurses were included in this study. The results showed that nurses had adequate knowledge of proper urine specimen handling. Cramer's V analysis revealed a moderate correlation between hand hygiene knowledge and practice among nurses ($\phi_c: 0.273, p = 0.046$) [8].

METHODOLOGY

This study was approved by the ethical committee of Hakeem Abdul Hameed Centenary (HAHC) Hospital, and the research approach used in this study was quantitative and non-experimental to assess the knowledge and practice of nursing personnel regarding safe urine sample collection. A descriptive research design was used in this study. The setting of the present study was HAHC Hospital. The hospital wards were selected using a convenient sampling technique. The population in this study comprised staff nurses working at the HAHC Hospital. The staff nurses selected for the present study were 60 nursing staff from the ward, casualty/emergency, and ICU of the HAHC Hospital. Convenience sampling was used in this study. To determine the knowledge of staff nurses regarding safe urine sample collection a structured knowledge questionnaire was developed and administered to assess the knowledge of staff nurses regarding safe urine sample collection. An observation checklist was developed and administered to assess the practices of staff nurses regarding safe urine sample collection. The tools developed for the study were based on:

- Review of literature from books, national and international journals, and web searches on the subject of safe urine sample collection.
- Consultation with experts in the field of nursing and research.

Description of the Tools

Structured Knowledge Questionnaire

It had two parts: Part 1 and Part 2 (*Annexure 1*).

1. *Part 1*: It included seven items to collect information on subjects' demographic characteristics, including age, sex, educational qualification, designation, clinical area, clinical experience, and guidelines.

2. *Part 2*: It consisted of 29 items to assess knowledge regarding safe urine sample collection. It consists of multiple-choice questions.

Scoring: The maximum score on the knowledge items was 29, with a score of one for each correct answer. The knowledge level grading criteria considered appropriate are as follows:

- *Adequate knowledge*: 75% and above
- *Inadequate knowledge*: Below 75%

Observation Checklist

The tool consisted of 13 items for random urine collection, 14 items for indwelling catheter urine collection, 4 items for 24-hour urine collection, and 13 items for urine culture and sensitivity to assess the practice checklist for safe urine sample collection (Observation Checklist 1–4).

Scoring: The maximum scores on the practice items were 13, 14, 4, and 13, with a score of one for each correct answer. The practice-level grading criteria considered appropriate are as follows:

- *Adequate practice*: 75% and above
- *Inadequate practice*: Below 75%

RESULTS

The demographic profile of the subject is mentioned in Table 1.

Table 1. Socio-demographic profile of the sample (n = 60).

Demographic variable	Categories	Frequency	Percentage (%)
Age	22–26	32	53.3
	27–30	15	30
	31–34	8	13.3
	35–38	1	1.7
	39–42	1	1.7
Gender	Female	53	88.33
	Male	7	11.67
Educational qualification	GNM	40	66.6
	B.Sc.	16	26.6
	Post Basic B.Sc.	3	5
	M.Sc.	1	1.6
Designation	Ward in charge	1	1.67
	Staff Nurse Grade II	59	98.33
Clinical area	Wards	44	77.33
	Casualty	5	8.33
	ICU	10	16.66
	Labor room	1	1.66
Clinical experience	≤12 months	12	20
	1–3 years	24	40
	3–5 years	12	20
	>5 years	12	20
Guidelines being used	Hospital	43	71.66
	NABH	6	10
	Book reference	1	1.66
	Ward	10	16.66

Table 1 shows that out of 60 staff nurses, the majority, i.e. (53.3%) of the staff nurses belonged to the age group of 22–26 years, (30%) were in the age group of 27–30 years and only (1.7%) were in the age group of 35–38 and 39–42 years. Most staff nurses (88.33%) were females and (11.67%) were male. More than half, i.e., (40) 66.66% belonged to GNM educational qualification, 26.6% (16) were B.Sc. nurses, 5% (3) were post basic B.Sc. nursing, 1.6% (1) were M.Sc. nurses, 98.33% (59) were staff nurse grade II, most staff nurses were employed in wards (77.33%), with smaller numbers in casualties (8.33%), ICU (16.66%), and the labor room (1.66%). In terms of clinical experience, 40% had 1–3 years of experience, while 20% had 12 months or less, another 20% had 3–5 years, and the remaining 20% had over 5 years. Regarding the guidelines followed, a significant majority adhered to hospital guidelines (71.66%), while a smaller fraction followed NABH standards (10%), references from books (1.66%), or ward-specific guidelines (16.66%).

Findings Related to Knowledge of Staff Nurses Regarding Safe Urine Sample Collection

The study findings revealed that the majority of the staff nurses (96.66%) possessed poor knowledge and 3.33% had good knowledge of safe urine sample collection (Figure 1). Table 2 summarizes staff nurses' knowledge scores, detailing the distribution and central tendency of their performance. The possible scores ranged from 0 to 29, while the actual scores obtained by the staff nurses ranged from 1 to 26. The mean score was 15.45, indicating a poor knowledge level. The median score was 15.5. The standard deviation was 3.48, reflecting the degree of variation in the scores.

Table 3 presents the practice scores for random urine collection among the staff nurses. The possible range of scores is from 0 to 13, with the actual scores obtained also falling within this range, from 0 to 13. The table highlights those 5 nurses (29.40%) demonstrated good practice, while 12 nurses (70.50%) exhibited poor practice. This distribution indicated that a considerable proportion of staff nurses needed to improve their practices related to random urine collection.

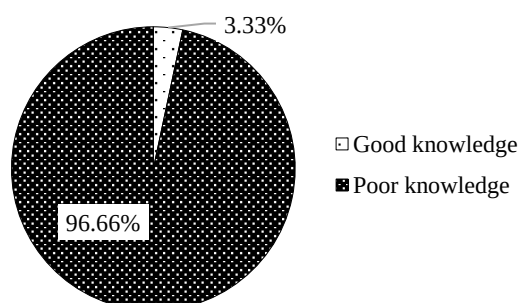


Figure 1. A Pie Diagram representing the Knowledge of Staff Nurses on Safe Urine Sample Collection (n=60).

Table 2. Descriptive statistics of knowledge scores among staff nurses, including mean, median, range, and standard deviation (n=60).

Knowledge score				
The possible range of scores	Obtained a range of scores	Mean	Median	Standard deviation
0–29	Minimum score 1	15.45	15.5	3.48
	Maximum score 26			

Table 3. Practice scores and distribution of good and poor practices in random urine collection among staff nurses (n=17).

Practice score on random urine collection					
The possible range of scores	Obtained a range of scores	Good practice	Good practice (%)	Poor practice	Poor practice (%)
0–13	0–13	5	29.40	12	70.50

Table 4 shows the mean, median, and standard deviation of the practice scores of staff nurses regarding random urine collection. The mean practice score was 8.41, the median was 8, and the standard deviation was 1.93.

Table 5 shows the practice scores of the staff nurses regarding the culture and sensitivity of urine collection. The majority (76.6%) of the staff nurses had poor practices, and only (23.3%) had good practices regarding culture and sensitivity urine sample collection (Figure 2).

Table 6 shows the descriptive statistics for the practice scores related to urine culture and sensitivity collection among the 30 staff nurses. The possible scores ranged from 0 to 13, and the obtained scores spanned the full range from 0 to 13. The mean practice score is 8.06, indicating an average performance level across the sample. A median score of 7. The standard deviation was 2.07, reflecting the degree of variability in the practice scores.

Table 7 shows the practice scores of staff nurses for indwelling catheter urine collection. The majority (9) 69.23% of the staff nurses had poor practice and only (4) 30.76% had good practice regarding indwelling catheter urine sample collection (Figure 3).

Table 4. Distribution of practice scores for random urine collection among staff nurses (n=17).

Practice score				
<i>The possible range of scores</i>	<i>Obtained a range of scores</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>
0–13	0–13	8.41	8	1.93

Table 5. Distribution of practice scores for urine culture and sensitivity among staff nurses (n=30).

Practice Score on urine culture and sensitivity					
<i>The possible range of scores</i>	<i>Obtained a range of scores</i>	<i>Good practice</i>	<i>% good practice</i>	<i>Poor practice</i>	<i>% poor practice</i>
0–13	1–13	7	23.3	23	76.6

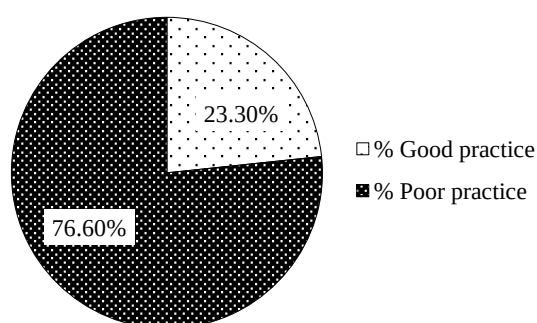


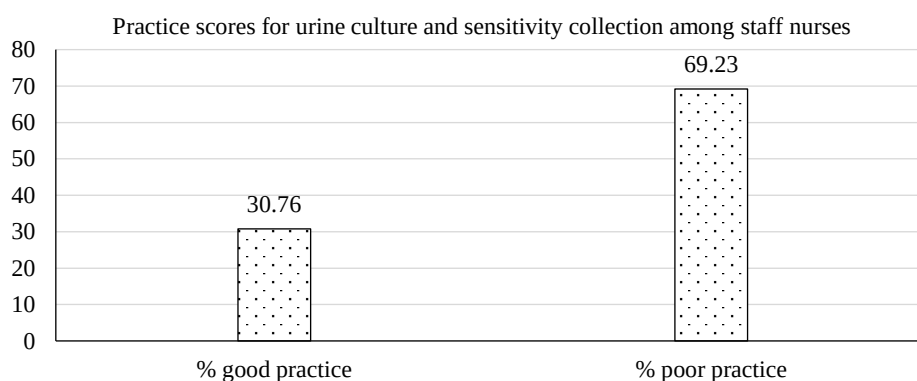
Figure 2. Pie diagram showing the practice score for urine culture and sensitivity collection among staff nurses.

Table 6. Descriptive statistics of practice scores for urine culture and sensitivity collection among staff nurses (n=30).

Practice score				
<i>The possible range of scores</i>	<i>Obtained a range of scores</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>
0–13	0–13	8.06	7	2.07

Table 7. Distribution and percentage of practice scores for indwelling catheter collection among staff nurses (n=13).

Practice scores for indwelling catheter collection among staff nurses					
<i>The possible range of scores</i>	<i>Obtained a range of scores</i>	<i>Good practice</i>	<i>% good practice</i>	<i>Poor practice</i>	<i>% poor practice</i>
0–14	1–14	4	30.76	9	69.23

**Figure 3.** Bar diagram showing the practice scores for indwelling catheter collection among staff nurses.**Table 8.** Descriptive statistics of practice scores for indwelling catheter urine sample collection among staff nurses (n=13).

Practice scores				
<i>The possible range of scores</i>	<i>Obtained a range of scores</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>
0–14	1–14	7.53	7	2.01

Table 8 shows the mean, median, and standard deviation of the practice scores of staff nurses regarding indwelling catheter urine collection. The mean practice score was 7.53.

Major Findings of the Study

The study findings revealed that the majority of the subjects (53.3%) were between the age group of 22–26 years, regarding gender, the majority of the subjects 88.33% were females. 66.6% of the subjects were GNM staff nurses. The majority (98.33%) of the subjects were staff nurse grade II, 77.33% of subjects were working in a ward, 40% of subjects were experienced between 1 and 3 years, and 71.66% of subjects were following hospital protocol. All subjects were asked about safe urine sample collection procedures during their professional course and working hours.

The study findings also revealed that the majority of the subjects (96.66%) had inadequate knowledge of safe urine sample collection. Regarding random urine sample collection, the majority of the subjects (76.9%) had poor practice in the collection of random urine sample collection. The majority (70.50%) of the subjects had poor practice in the urine sample collection for culture and sensitivity, and (69.23%) of the staff nurses had poor practice in indwelling catheter urine sample collection.

DISCUSSION

Accurate laboratory results are crucial for patient diagnosis, and proper urine sample collection is key to achieving this goal. However, staff nurses frequently do not adhere to correct collection procedures, which can cause inconsistencies in urine test results. Adhering to safe collection practices and promptly sending samples to the laboratory can reduce these inconsistencies and enhance diagnostic precision. A descriptive cross-sectional study involving 205 nurses, selected through non-probability convenience sampling, was conducted. Data were gathered using a structured, self-administered questionnaire and

analyzed using SPSS. The findings indicated that nurses had a satisfactory understanding of various aspects: explaining the procedure (74%), patient preparation (80%), and the use of antiseptic methods (91%) before specimen collection. A quantitative descriptive research study was conducted at Narayana Medical College Hospital, involving 15 staff nurses and 15 nursing students selected through non-probability convenience sampling, and found a statistically significant association ($p = 0.041$) between nurses' knowledge and the frequency of urine specimen collection and storage. Data were collected using a semi-structured questionnaire and analyzed using descriptive and inferential statistics. The findings indicated that six (40%) of the staff nurses had inadequate knowledge, five (33.3%) had moderately adequate knowledge, and four (26.7%) had adequate knowledge regarding the collection of urine specimens for infants. Among the nursing students, 2 (13.3%) had inadequate knowledge, 7 (46.7%) had moderately adequate knowledge, and 6 (40%) had adequate knowledge on the same subject [4, 9].

Most nurses at Hospital Raja Perempuan Zainab II (HRPZII) demonstrated a good understanding of the urine culture and sensitivity (C&S) procedure. However, some nurses did not align their practice with their knowledge. Knowledge assessment revealed that certain procedural steps might have been forgotten or misunderstood by some nurses [11]. Although a national guideline from the Ministry of Health (2019) is available to minimize contamination in urine culture samples, some clinicians may not be aware of this. Additionally, despite the weekly continuous medical education sessions at HRPZII, the study did not account for the amount of training each nurse received over their career [5].

CONCLUSION

The present study concludes with the following observations: The majority of staff nurses had inadequate knowledge of safe urine sample collection and urine sample procedures and had poor practice while performing urine sample collection procedures.

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ANNEXURE I**Code No.****Structured Questionnaire**

Instruction: Read the following questions carefully and place the Tick (✓) mark against the appropriate option.

PART-A

- Q1 Age (in years)
- Q2 Gender
(a) Male (b) Female
- Q3 What is your educational qualification?
(a) GNM
(b) B.Sc. Nursing
(c) Post Basic B.Sc. Nursing/Post Basic Diploma
(d) M.Sc. Nursing
(e) M.Phil./Ph.D.
- Q4 Your current designation
(a) Ward in charge (b) Staff Nurse
- Q5 Current area of clinical posting
(a) Ward
(b) Casualty/Emergency
(c) ICU
- Q6 Your total clinical experience to date year month
(a) Less than 1 year (b) 1–3 years
(c) 4–6 years (d) More than 6 years
- Q7 Which guidelines are followed for urine sample collection in your respective hospital?
(a) NABH Protocol (b) Hospital protocol
(c) Reference from book (d) Wards Protocol

PART-B

- Q1 Which of the following is the indication for a urine culture sample?
(a) MI (b) UTI
(c) Routine sample (d) DM
- Q2: What is the first step in urine collection for urine culture after reading the doctor's prescription?
(a) Assemble equipment (b) Hand washing
(c) Label the container (d) Explain the procedure
- Q3. What should be used by the client to clean the urinary meatus before obtaining urine culture samples?
(a) Soap and water (b) Water
(c) Saline swab (d) No need for cleanliness
- Q4 How should the container tip be placed during urine collection?
(a) Inside down (b) Inside up
(c) Below the container (d) No specific instruction
- Q5 What is the amount of urine collected during routine or C/S urine examinations?
(a) 3–5 ml (b) 10–15 ml
(c) 20–30 ml (d) 30–50 ml

- Q6. At this temperature, the urine sample is maintained if there is a delay in transportation.
(a) 1–3 degree Celsius (b) 2–8 degree Celsius
(c) 9–12 degree Celsius (d) 14–15 degree Celsius
- Q7 What are the essential articles required for safe urine sample collection?
(a) Sterile gloves, labeled sterile container
(b) Sterile container
(c) Sterile gloves and routine containers
(d) Clean gloves
- Q8 For how long will you clamp the Foley catheter?
(a) 5 minutes (b) 30 minutes
(c) 1-hour (d) 1 hour 30 minutes
- Q9 How will you clean the catheter site before taking a urine culture from the catheter?
(a) Spirit
(b) Spirit and saline swabs
(c) Saline swab swabs
(d) Normal saline swab
- Q10 At which angle of needle insertion in the Foley catheter during urine sample collection for culture?
(a) 15 degrees (b) 30 degrees
(c) 40 degrees (d) 90 degrees
- Q11 When will you unclamp the Foley catheter after taking the urine sample?
(a) Wait for patient response (b) Wait for 30 minutes
(c) Soon after the procedure ends (d) After 1 hour
- Q12 Where should the Foley catheter have clamped during the procedure?
(a) At the 'y' connection.
(b) 5 cm above the y-connection.
(c) 2 cm above the y-connection.
(d) No need for clamping
- Q13 What is the size of the needle used for a urine culture to aspirate urine from the Foley catheter?
(a) 18 G (b) 22 G
(c) 23 F or 25 G (d) 16 G
- Q14 Which of the following types of material can be used as specimen containers?
(a) Plastic, (b) Glass
(c) Leakproof (d) Metal
- Q15 How many times catheter care should be given?
(a) Once a day (b) Twice a day
(c) Three times a day (d) Weekly
- Q16 What should be done after collecting clean catch urine from a Foley catheter or midstream urine?
(a) Immediately end (b) Store in refrigerator
(c) Keep at room temperature (d) Send after 2 hours.
- Q17. Which of the following techniques should be adopted to reduce urinalysis contamination?
(a) Perineal care (b) Defecation.
(c) Clean catch midstream (d) Early morning collection
- Q18. What should be the position of the penis during sample collection?
(a) Upright and retracted foreskin
(b) Downward-retracted foreskin
(c) Upright positions
(d) Downward position

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- Q19. How will you clean your urinary meatus before collecting urine samples?
- (a) Clean outside center
 - (b) Rotatory motion with center
 - (c) Outside center
 - (d) Rotatory motion with outside to center
- Q20. What would you do if a closed urine container is contaminated with urine from outside?
- (a) Wash from the outside with water
 - (b) Change the container
 - (c) Disinfection container
 - (d) Send as it is
- Q21. How will you clean the perineum while obtaining a urine sample from a female patient?
- (a) Upward stroke from the rectum to the vagina
 - (b) Clean the rectum to the vagina
 - (c) The vaginal area was cleaned with an antiseptic solution
 - (d) One down strokes towards the rectum
- Q22. What is the frequency of 24-hour urine sample collection?
- (a) 1 time
 - (b) 2 times
 - (c) 3 times
 - (d) 4 times
- Q23. Urine collection comes under which type of procedure.
- (a) Non-invasive
 - (b) Invasive procedure.
 - (c) Radiological procedure
 - (d) Laparoscopic
- Q24. Which factor interferes with accuracy in 24-hour urine collection?
- (a) Forgetting to collect urine.
 - (b) Going beyond 24-hour urine collection
 - (c) Not keeping urine cold during collection
 - (b) All of the above.
- Q25. Which of the following preservatives can be used in a 24-hour urine sample, if it is less than one litre?
- (a) 5 g sodium carbonate
 - (b) 4 g of boric acid
 - (c) Hydroxyindioleacetic
 - (d) Catechol amines
- Q26. What should be the minimum capacity of the container used for 24-hour urine collection?
- (a) 1 litre
 - (b) 2 litres
 - (c) 3 litre
 - (d) 5 litres
- Q27. What are the prerequisites for 24-hour urine collection?
- (a) Fasting and sedation
 - (b) Specific time
 - (c) Physician prescription
 - (d) Morning sample
- Q28. How will you start collecting 24-hour urine collection?
- (a) Saving the first urine sample.
 - (d) By taking first-time urine
 - (e) By discarding the first-time urine
 - (f) Midstream
- Q.29 What interventions are done if it is not sent to the lab within 2 hours?
- (a) Room temperature
 - (b) Sending to the laboratory.
 - (c) In refrigerator
 - (d) Discard the sample
-

OBSERVATION CHECKLIST-1

(For random urine specimen collection from bedridden patients admitted to the ward)

Code no.:

Date and time:

Area in ward:

Name of the observer:

S.N.	Steps of procedure	Yes	No
1.	Hand washing with soap and water		
2.	Article preparation (urine sample container, disposable gloves, bedpan/urinal, lab form, label, kidney basin with paper bag, soapy swabs and wet swabs, artery forceps jug of water, mackintosh with paper lining, towel, screen)		
3.	Assess client mobility and explain the procedure.		
4.	Provide privacy to the patient.		
5.	Washed hands with soap and water sanitizer and Wear gloves		
6.	Offer bedpan		
7.	Assist or allow the client to wash the perineum Male Hold the penis and retract the foreskin and using a circular motion clean the penis from center to peripheral with soap and a wet swab. Female		
	SEPARATE labia minora with thumb and forefinger and clean the area with soap and water in one stroke three times from vagina to rectum,		
8.	Pass the urine to the specimen bottle 3-5 ml.		
9.	Remove the specimen container before the client empties the bladder.		
10.	Remove the bedpan to make the patient comfortable.		
11.	Replace the cap in the specimen container and remove the gloves.		
12.	Label it with name, age, sex, bed no/ward no. and diagnosis.		
13.	Transport the specimen to the laboratory within 15 minutes or refrigerate at a temperature of 2–8 degrees Celsius.		

OBSERVATION CHECKLIST-2

(For urine specimen collection from an indwelling catheter from Wards/ICUs)

Code no.:

Date and time:

Area in ward:

Name of the observer:

S.N.	Steps of procedure	Yes	No
1.	Hand washing with soap and water.		
2	Article preparation (urine sample container, sterile gloves, needle (23 or 25), syringes, saline swab swabs, spirit swabs, clamp, lab form, label, kidney basin with paper bag, artery forceps., mackintosh with paper lining, towel, screen).		
3	Take all the articles to the bedside.		
4	Assess client mobility and explain the procedure.		
5	Provide privacy to the patient.		
6	Clamped the catheter for 30 minutes prior to the procedure.		
7	Washed hands with soap and water, sanitizer, and Wear gloves.		
8	Clean the catheter with the spirit swab in the center to peripheral at 'Y' connector with a swab and leave it for 30 seconds.		
9.	Clean the catheter with a saline swab at the 'Y' connector.		
10.	Take the syringe with a needle and insert at 30 degrees then aspirate (10 ml) and pour the urine sample into the container.		
11.	Make the patient comfortable and unclamped immediately.		
12.	Replace the cap in the specimen container and remove the gloves.		
13.	Label it with name, age, sex, bed no.\ward no. and diagnosis.		
14.	Transport the specimen to the laboratory within 15 minutes or refrigerate at a temperature of 2-8 degrees Celsius.		

OBSERVATION CHECKLIST-3

(For 24-hour urine specimen collection from Wards and ICUs)

Code no.:

Date and time:

Area in the ward:

Name of the observer:

S.N.	Steps of procedure	Yes	No
1.	Article preparation (urine sample container (3 litres) preservative (boric acid, chloroform concentrated HCl, formalin).		
2.	Take all the articles to the bedside.		
3.	Assess the client's mobility and explain the procedure. All urine voided over a 24-hour period is collected in a common receptacle, starting from 6 a.m. on the first day to 6 a.m. the following day..		
4.	Documentation of procedure in nursing record.		

OBSERVATION CHECKLIST-4

(For urine culture and sensitivity specimens from Wards and ICUs).

Code no.:

Date and time:

Area in the ward:

Code of the observer:

S.N.	Steps off procedure	Yes	No
1.	Hand washing with soap and water		
2.	Article preparation (urine sample container, sterile gloves, bed pen\ urinal, lab form, label, kidney basin with paper bag, saline swabs, artery forceps, mackintosh with paper lining, towel, screen)		
3.	Assess client mobility and explain the procedure.		
4.	Provide privacy to the patient.		
5.	Washed hands with soap and water or use sanitizer and wear sterile gloves		
6.	Offer bedpan		
7	Assist or allow the client to wash the perineum. Male Hold the penis and retract the foreskin and using a circular motion clean the penis from center to peripheral with a saline swab. Female Separate the labia minora with your thumb and forefinger, and clean the area with a saline swab in a single stroke from the vagina to the rectum.		
8.	Pass the urine to the specimen bottle 3–5 ml.		
9.	Remove the specimen container before the client empties the bladder.		
10	Remove the bedpan to make the patient comfortable.		
11.	Replace the cap in the specimen container and remove the gloves.		
12.	Label it with name, age, sex, bed no.\ward no. and diagnosis.		
13.	Transport the specimen to the laboratory within 15 minutes or refrigerate with a temp. of 2–8 degrees Celsius		