

## *Results*

**The results of this study was presented in the following sequences:**

**Section I:-** Personnel characteristics of staff nurses working in dialysis unit at Benha University Hospital, Table (1)

**Section II:-** Nurses' opinion about the importance of dialysis standards in Dialysis Unit at Benha University Hospital, Tables (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13)

**Section III:-** Observation of nurses' performance according to proposed standards for Dialysis Unit at Benha University Hospital. Included 2 parts:-

**Part A:-**Structure standards included tables (14, 15, 16, 17, 18, 19, 20, and 21)

**Part B: -** Process Standards included Tables (22, 23, 24, and 25)

**Section IV:-** Mean and standard deviation of nurses' performance of proposed process standards in Dialysis Unit at Benha University Hospital, Table (26)

**Section V: -** Correlation coefficient between nurses' performance and their age, experience and experience in work place in Dialysis Unit at Benha University Hospital. Table (27).

### Section (I): - Personal Characteristics of Studied Staff Nurses

**Table (1):- Personal Characteristics of Studied Staff Nurses (no =44)**

Items	No	%
<b>Age</b>		
≤ 25	9	20.5
26 – 34	28	63.6
≥ 35	7	15.9
<b>Mean ± SD</b>	28.95 ± 5.49	
<b>Qualification</b>		
Diploma degree in nursing	31	70.5
Diploma with specially	2	4.5
Technical nurse institute	0	0
Baclorate of nursing (B.SC in nursing )	11	25.0
<b>Years of experience</b>		
≤ 5	6	13.6
6 – 10	14	31.8
11 – 15	12	27.3
≥ 16	12	27.4
<b>Mean ± SD</b>	10.77± 5.87	
<b>Experience in work place</b>		
≤ 5	13	29.5
6 - 10	14	31.8
11 - 15	9	20.5
≥ 16	8	18.2
<b>Attend Training program about quality</b>		
No	33	75.0
Yes	11	25.0

This table shows personal characteristics of staff nurses, the results revealed that 63.6% of studied staff nurses ages were between 26 - 34 years old, 70.5% of studied staff nurses were graduated from diploma nursing, 31.8 % of studied nurse have years of experience from 6 – 10 years, 31. 8% have 6 – 10 years of experience in work place finally 75.0% had no training in quality.

**Section II: Nurses' Opinions about the Importance of the Standards  
in Dialysis Unit.**

**Table (2): Nurses' Opinions about the Importance of the Policy and  
Objective Dialysis Unit.**

Standard of policy and objective	Important		Not important	
	No	%	No	%
Polices and Procedure must be written	40	100	0	0
This objectives must be declared and available to all nurses	39	97.7	1	2.3

This table shows that 100% of studied nurses reported that the policies and procedures must be written and 97.7% of them agreed that objectives must be declared and available to all nurses.

**Table (3):- Nurses' Opinions about the Importance of Organizational Chart in Dialysis Unit.**

Standard of organizational chart	Important		Not important	
	No	%	No	%
Items of organizational chart standard.				
Organizational chart displays the lines of authority	36	90.9	4	9.1
Organizational chart must be clear and available to all nurses	37	93.2	3	6.8

This table clarifies that 93.2% of studied nurses agreed about the importance of the organizational chart that should be clear and available to all nurses. 90.9% of nurses show the importance of organizational chart that should displays the lines of authority.

**Table (4):- Nurses' Opinions about the Importance of Job Description to Employee in Dialysis Unit.**

Standard of job description	Important		Not important	
	No	%	No	%
Items of job description standard.				
Job Description clarifies the role of every nurse in the unit	40	100	0	0
This job description must be clear and being reviewed every 6 months'	36	90.9	4	9.1

This table clarifies that 100% of studied nurse agreed about the importance of job description should clarify the role of every nurse in the unit, 90.9% of nurses agreed about the importance of that job description should be clear and reviewed every 6 months.

**Table (5):- Nurses' Opinions about the Importance of Human Resources managed in Dialysis Unit.**

Standard of human resources	Important		Not important	
	No	%	No	%
Available head nurse to give patients care with experience not less than 3 years	40	100	0	0
Head nurse have clearly defined and declared tasks and responsibilities	40	100	0	0
Available nurse in unit to follow up 2 patient at least	39	97.7	1	2.3
Trained nurse about infection control is supervised in dialysis unit	37	93.2	3	6.8

This table declared that almost of studied nurses reported the importance of all items of human resources.

**Table (6):- Nurses' Opinions about the Importance of Documentation System in Dialysis Unit.**

Standard of documentation	Important		Not important	
	No	%	No	%
* Patient's medical history	40	100	0	0
* Patient's general status	40	100	0	0
* Patient's psychological status	36	90.9	4	9.1
* Patient's immunization	39	97.7	1	2.3
* Patient's nutritional status	39	97.7	1	2.3
* Patient's drug allergies	40	100	0	0
* Drug doses uses	40	100	0	0
* Any unusual events occurs during dialysis process	40	100	0	0
* Patient's weight	40	100	0	0
* Patient's investigation	40	100	0	0
* Recording regularly vital signs especially blood pressure	40	100	0	0

This table declared that the almost of studied nurses reported the importance of all items of documentation, while 9.1% of studied nurses reported that documentation of patient psychological status were not important.

**Table (7):- Nurses' Opinions about the Importance of Safe Handling of Medications in Dialysis Unit.**

Standard of safe handling of medications	Important		Not important	
	No	%	No	%
Is ascertained by patient's I D band(patient's name and medical record number)	37	93.2	3	6.8
Available unit policy describe the safe handling of medication through 7 rights	40	100	0	0
*Right patient	40	100	0	0
*Right medicine	40	100	0	0
*Right dosage	40	100	0	0
*Right route	40	100	0	0
*Right time	40	100	0	0
*Right frequency	40	100	0	0
*Right documentation	40	100	0	0
Calculate doses of dangerous drug certification by 2 nurses with signature this drug as (Adrenaline-Atropine –calcium)	35	88.6	5	11.4
Medication storage area are locked at all times expect when nurses preparing medication	40	100	0	0
The medication storage area have good lighting ,good ventilation and clean	40	100	0	0
Each shift should count all medication especially dangerous and documenting this number	39	97.7	1	2.3
Need to focus on drug expire date	40	100	0	0

This table shows that almost total sample of studied nurses reported that all items of safe handling of medications were important, while 11.4% of studied nurses reported that the item of calculated doses of dangerous drug certification by 2 nurses with signature were not important.



**Table (8):- Nurses' Opinions about the Importance of Infection Control in Dialysis Unit.**

Standard of infection control Items of infection control standard.	Important		Not important	
	No	%	No	%
Hand washing have 3 types	40	100	0	0
* Routine				
* Healthy	40	100	0	0
* Surgical	40	100	0	0
Use of personal protective equipment as	40	100	0	0
* Masks				
* Gloves	40	100	0	0
* Aprons	40	100	0	0
* Eye protective	36	90.9	4	9.1
* Face protective	36	90.9	4	9.1
* Over head	39	97.7	1	2.3
* Over shoes	39	97.7	1	2.3
Change bed linen between each patient	40	100	0	0
Follow the policy and procedure of cleaning and disinfecting the work surfaces	40	100	0	0
Expiry date should be recorded on the sterile materials	40	100	0	0
Provide a list of required sterile materials	40	100	0	0
Before installing the catheter should use sterile gauze with antiseptic solution	40	100	0	0
<b>Methods of anti pollution</b>				
Found 3 stages to re processing medical equipment are	40	100	0	0
* Cleaning	40	100	0	0
* Cleansing	40	100	0	0
* Sterilization	40	100	0	0
<b>Staff has a policy that describe the safe handling of waste</b>				
The unit should provide the separation requirements of wastes	36	90.9	4	9.1
Put the bags of non acute hazards waste inside the patient's station	40	100	0	0
Put bags of normal non hazards wastes inside the nursing station	40	100	0	0

<b>Standard of infection control</b>	<b>Important</b>		<b>Not important</b>	
	<b>No</b>	<b>%</b>	<b>No</b>	<b>%</b>
Put safety boxes with sharp waste in appropriate closed area not inside the station	40	100	0	0
Closed safety boxes after filled 3\4	40	100	0	0
Deal safe with patient's spillage blood and secretions	40	100	0	0
<b>Isolation in dialysis unit</b>				
Isolated rooms for patients with hepatitis C,B and aids with allocated nurses for them	40	100	0	0
Provide patient with hepatitis C,B and aids with special devices not used by other patient	31	79.5	9	20.5
Identified rooms for male and female	35	88.6	5	11.4
Physical separation between each patient	34	86.4	6	13.6
<b>The employee follow the policy of anti contamination when preparing a medication</b>				
Prepared a medication for each patient individually	40	100	0	0
Cleaned and disinfected trays specialty for medication between each patient	40	100	0	0
<b>Health maintenance of the workers</b>				
Wear special clothes(personal protective) to protect them selves	40	100	0	0
Nursing staff shouldn't eat in the unit	40	100	0	0
All workers in the unit should be vaccinated against hepatitis B	40	100	0	0
<b>Unit policy for cleansing dialysis machine include the following</b>				
The nurse wear protective clothes	40	100	0	0
At the beginning and end of the day and after each use should rinse and clean the machine	40	100	0	0
Use chlorine diluted with 20CM\liter water to clean the machine from abroad	40	100	0	0
Cleaned the parts of keys in machines by use alcohol	40	100	0	0
During preparation of dialysis machine should keep the intravenous tube in residues container	40	100	0	0
Use payment process to cleansing the pipes of the machine	40	100	0	0
Cleansing the container for the disposal of waste resulting from nomination daily process	40	100	0	0
Shouldn't allow the waste of dialysis machine back again to the machine	40	100	0	0

This table clarifies that majority of studied nurses reported all items of infection control, the unit policy and procedure specialty of infection control were important. While 20.5% of studied nurses reported that items of provide patient with hepatitis C, B and aids with special devices not used by other patient were not important, 13.6% of studied nurses reported that items of physical separation between each patient were not important.

**Table (9):- Nurses' Opinions about the Importance of Nursing Station in Dialysis Unit.**

Standard of nursing station	Important		Not Important	
	No	%	No	%
Items of nursing station standard.				
For each treatment unit should found nursing station to allow observation of all patient	40	100	0	0
Available furniture to save the files and records	40	100	0	0
Available furniture to store medicine	40	100	0	0
Available furniture to save supplies and medical equipment needed to nursing operation	40	100	0	0

This table shows that 100% of studied nurses reported that all items of nursing station were important.

**Table (10):- Nurses' Opinions about the Importance of Training program in Dialysis Unit.**

Standard of training	Important		Not important	
	No	%	No	%
Items of training standard.				
Available training courses on the optimal use of tools and supplies in the unit	37	93.2	3	6.8
Available training courses on the unit about development of nursing skills	40	100	0	0
Available training courses on how to deal with verbal order	39	93.2	3	6.8
Available training courses on how to apply the policy quality in the unit	40	100	0	0
Available training courses on patient's safety and security	40	100	0	0
Available training courses on how to deal with patient when he come out and transferred	40	100	0	0
Available training courses about how to deal with blood transferring	40	100	0	0
Available training and courses on how to deal with safe disasters and crisis	36	90.9	4	9.1
Available written and posted guidance for staff in dialysis unit	40	100	0	0
Available training courses for new staff before work handling in dialysis unit	40	100	0	0
Available training courses for all workers about cardio pulmonary resuscitation ( CPR) process	40	100	0	0
Available training courses for all workers on how to deal with fire safety	40	100	0	0
• Click the alarm key				
• Click call report key	40	100	0	0
• Close oxygen valve	40	100	0	0

This table clarifies that almost of studied nurses reported that all items of training were important. While 9.1% of studied nurses reported that the items of available training and courses on how to deal with safe disasters and crisis were not important.

**Table (11):- Nurses' Opinions about the Importance of Environmental Factors in Dialysis Unit.**

Standard of environmental factor	Important		Not important	
	No	%	No	%
Available alarm system beside each patient	35	88.6	5	11.4
Available room with suitable size for all water filters	34	86.4	6	13.6
Available separated room for disinfection	40	100	0	0
Available room for store the clean medical supplies and linens	40	100	0	0
Available room for store the non clean medical supplies and linens	40	100	0	0
Available room for store cleaning materials include sink to drain water	40	100	0	0
Available room for store the cleaning tools	40	100	0	0
Available room for store the requirements of the unit (Trolley – Wheel Chairs – Oxygen Cylinder )	40	100	0	0
<b>Clothes change room</b>				
Available room for patients clothes change	40	100		
Available room for nurses clothes change	40	100		

This table declared that majority of studied nurses reported that all items of environmental factors are important, except 13.6% of studied nurses reported that items of available room with suitable size for all water filters not important & 11.4% reported the item of available alarm system beside each patient also not important.

**Table (12):- Nurses' Opinions about the Importance of Patient Care in Dialysis Unit.**

Standard of patient care Items of patient care standard.	Important		Not important	
	No	%	No	%
Patients are directed towards maintaining a place of catheter clean and dry	40	100	0	0
Patients are directed toward signs of infection (fever , feeling cold , chills , pain , the emergence of leak placement )	40	100	0	0
During the dialysis process allow patients to eat their food	40	100	0	0
Patients are directed toward maintaining nutrition with low sodium , potassium , phosphate moderate protein , carbohydrate and fat	40	100	0	0
Patients are directed toward eat fresh fruits and vegetables to supply the necessary vitamins	40	100	0	0
Patients are directed toward reducing the intake of salted food	40	100	0	0
Patients are directed toward maintaining personal hygiene to reduce the skin irritation resulting from the increase of urea	40	100	0	0
Patients are directed toward maintaining the clean lines of the mouth and repeat encouragement to chew gum to stimulate saliva flow to reduce thirst	40	100	0	0
Patients are directed toward optimal use of laxatives to reduce the irritation of the colon as result of the high percentage of urea as directed by physician	40	100	0	0
Intervention is necessary drugs diuretics as directed by your doctor	40	100	0	0
Be installed the urinary catheter to monitor urine output	37	93.2	3	6.8
Patients with renal failure directed toward not taking antibiotics such as( gentamycin, streptomycin ) and analgesics such as ( aspirin or ibuprofen)	40	100	0	0
Clarify how treat of the patient to reduce unrest	40	100		

Standard of patient care	Important		Not Important	
	No	%	No	%
Nurses make patient's assessment when entering the dialysis unit include :- 1- Assess vital signs	40	100	0	0
2- Assess the degree of awareness	40	100	0	0
3- Evaluation of the patient's weight	40	100	0	0
Be alert to dialysis patient not to take blood pressure medication during the process of dialysis, but must be taken before starting dialysis process at least one hour to prevent decline in blood circulation	40	100	0	0

This table clarifies that almost of studied nurses reported that all items of patient care are important, while 6.8% of studied nurses reported that the item of “Be installed the urinary catheter to monitor urine output” not important.



**Table (13):- Nurses' Opinions about the Importance of Patient Rights in Dialysis Unit.**

Standard of patient rights Items of patent rights standard.	Important		Not important	
	No	%	No	%
Patient right to know the name of the physician	39	97.7	1	2.3
Patient right to have nursing care according to his case	40	100	0	0
Patient right to know what decisions about his care	35	88.6	5	11.4
Patient right to participate in decisions about his care	34	86.4	6	13.6
Patient right to refuse care and discontinue treatment	28	72.7	12	27.3
Patient right to safe and safety	40	100	0	0
Patient right to privacy and confidentiality	40	100	0	0
Patient right to receive final treatment	40	100	0	0
Patient right to complain without fear persecution	40	100	0	0
Patient right to make proposals during his treatment in the unit	40	100	0	0

This table declared that the majority of studied nurses reported the importance of all items of patient rights. While 27.3% of studied nurses reported that the item of right to refuse care and discontinue treatment were not important and 13.6% reported the item of right to participate in decision about his care were not important.

**Section III: -Observation of Nurses' Performance According to  
Proposed Standards in Dialysis Unit.**

**A:-Structure Standard.**

**Table (14):- Observation of Nurses' Performance of Proposed  
Structure Standard of the Dialysis Policy and  
Objective.**

Standard of policy and objective Items of policy and objective standard	Available		Not available	
	No	%	No	%
These polices and procedure must be written	0	0	40	100
This objective must be declared and available to all	0	0	40	100

This table declared that 100% of studied nurses had found all items of the standard of policy and objective of the dialysis unit were not available.

**Table (15):- Observation of Nurses' Performance of Proposed Standard of Organizational Chart in Dialysis Unit.**

Standard of organizational chart	Available		Not available	
	No	%	No	%
Items of organizational chart standard.				
These organizational chart displays the lines of authority	0	0	40	100
These chart is clear and available to all	0	0	40	100

This table clearly shows that 100% of studied nurses had found all items of organizational chart were not available.

**Table (16):- Observation of Proposed Standard of Job Description of Employee in Dialysis Unit.**

<b>Standard of job description</b>	<b>Available</b>		<b>Not available</b>	
	<b>No</b>	<b>%</b>	<b>No</b>	<b>%</b>
Clarifies the role of every nurse in the unit	0	0	40	100
This job description is clear and reviewed every 6 months'	0	0.	40	100

This table clearly shows that 100% of studied nurses had found all items of standard of job description were not available.

**Table (17):- Nurses' Observation of Nurses' Performance of Proposed Standard of Human Resources in Dialysis Unit.**

Standard of human resources	Available		Not available	
	No	%	No	%
Available head nurse to give patients care with experience not less than 3 years	40	100	0	0
Head nurse have clearly defined and declared tasks and responsibilities	40	100	0	0
Available nurse in unit to follow up 2 patient	0	0	40	100
Trained nurse about infection controlled is supervised in dialysis unit	0	0	40	100

This table clarifies that 100% of studied nurses have the items of, Available head nurse to give patients care with experience not less than 3 years and the item of head nurse have clearly defined and declared tasks and responsibilities.' While 100% of studied nurses had found items of available nurse in unit to follow up 2 patients & trained nurse about infection control is supervised in dialysis unit were not available.

**Table (18):- Observation of Nurses' Performance of Proposed Standard of Nursing Station in Dialysis Unit.**

Standard of nursing station	Available		Not available	
	No	%	No	%
For each treatment unit should found nursing station to allow observation of all patient	0	0	40	100
Available furniture to save the files and records	35	88.6	5	11.4
Available furniture to store medicine	36	90.9	4	9.1
Available furniture to save supplies and medical equipment needed to nursing operation	36	90.9	4	9.1

This table declared that the majority sample had found all items of nursing station except the first items 100% of staff were not available.

**Table (19):- Observation of Nurses' Performance of Proposed Standard of Training in Dialysis Unit.**

<b>Standard of training</b>	<b>Available</b>		<b>Not available</b>	
	<b>No</b>	<b>%</b>	<b>No</b>	<b>%</b>
Available training courses on the optimal use of tools and supplies in the unit	0	0	40	100
Available training courses on the unit about development of nursing skills	0	0	40	100
Available training courses on how to deal with verbal order	0	0	40	100
Available training courses on how to applied the policy quality in the unit	0	0	40	100
Available training courses on patient's safety and security	0	0	40	100
Available training courses on how to deal patient when he came out and transferred	0	0	40	100
Available training courses about how to deal with blood transferring	0	0	40	100
Available training and courses on how to deal with safe disasters and crisis	0	0	40	100
Available written and posted guidance for staff in dialysis unit	0	0	40	100
Available training courses for new staff before work handling in dialysis unit	0	0	40	100
Available training courses for all workers about CPR process	0	0	40	100
Available training courses for all workers on how to deal with fire safety				
• Click the alarm key	0	0	40	100
• Click call report key	0	0	40	100
• Close oxygen valve	0	0	40	100

This table clearly shows that 100% of studied nurses had found all items of training were not available.

**Table (20):- Observation of Nurses' Performance of Proposed Standard of Environmental Factors in Dialysis Unit.**

Standard of environmental factors	Available		Not available	
	No	%	No	%
Items of environmental factors standard				
Available alarm system beside each patient	0	0	40	100
Available room with suitable size for all water filters	31	79.5	9	20.5
Available separated room for disinfection	0	0	40	100
Available room for store the clean medical supplies and linens	6	13.6	34	86.4
Available room for store the non clean medical supplies and linens	0	0	40	100
Available room for store cleaning materials include sink to drain water	0	0	40	100
Available room for store the cleaning tools	0	0	40	100
Available room for store the requirements of the unit ( trolley – wheel chairs – Oxygen cylinder )	0	0	40	100
<b>Clothes change room</b>				
Available room to patients clothes change	0	0	40	100
Available room to nurses clothes change	40	100	0	0

This table declared that the majority of studied nurses not have all items of the standard of environmental factor except item of available room with suitable size for all water filters (79.5%) and item of available room to nurses clothes change (100%) were available.



**Table (21):- Observation of Nurses' Performance of Proposed Standard of Patient Rights in Dialysis Unit.**

Standard of patient rights	Available		Not available	
	No	%	No	%
Items of patient rights standard				
Patient right to know the name of the physician	40	100	0	0
Patient right to have nursing care according to his case	40	100	0	0
Patient right to know what decisions about his care	0	0	40	100
Patient right to participate in decisions about his care	0	0	40	100
Patient right to refuse care and discontinue treatment	0	0	40	100
Patient right to safe and safety	0	0	40	100
Patient right to privacy and confidentiality	0	0	40	100
Patient right to receive final treatment	40	100	0	0
Patient right to complain without fear persecution	40	100	0	0
Patient right to make proposals during his treatment in the unit	40	100	0	0

This table clearly shows that 100% of studied nurses performed some items of standard of patient rights especially in, right to know the name of the physician, right to have nursing care according to his case, right to receive final treatment, right to complain without fear persecution and right to make proposals during his treatment in the unit. While the same percent 100% of studied nurses had found items of patient rights especially in right to know what decisions about his care, right to participate in decisions about his care, right to refuse care and discontinue treatment, right to safe and safety and right to privacy and confidentiality were not available.

## Nurses' Performance of Proposed Process Standard

### B: - Process Standard

**Table (22):- Observation of Nurses' Performance of Proposed Standard of Documentation in Dialysis Unit.**

Standard of documentation	Done		Not done	
	No	%	No	%
* Patient's medical history	9	20.5	31	79.5
* Patient's general status	0	0	40	100
* Patient's psychological status	0	0	40	100
* Patient's immunization	0	0	40	100
* Patient's nutritional status	0	0	40	100
* Patient's drug allergies	0	0	40	100
* Drug doses uses	0	0	40	100
* Any unusual events occurs during dialysis process	0	0	40	100
* Patient's weight	5	11.4	35	88.6
* Patient's investigation	28	72.7	12	27.3
* Recording regularly vital signs especially blood pressure	15	34.1	25	65.9

This table declared that the almost staff sample not performed the all items of documentation. While 72.7% of studied nurses document patient's investigation and 34.1% recording regularly vital signs especially blood pressure.

**Table (23):- Observation of Nurses' Performance of Proposed Standard of Safe Handling of Medication in Dialysis Unit.**

Standard of safe handling of medication Items of safe handling of medication standard	Done		Not done	
	No	%	No	%
Is ascertained by patient's I D band(patient's name and medical record number)	0	0	40	100
Available unit policy describe the safe handling of medication through 7 rights	0	0	40	100
* Right patient	40	100	0	0
* Right medicine	40	100	0	0
* Right dosage	40	100	0	0
* Right route	40	100	0	0
* Right time	40	100	0	0
* Right frequency	40	100	0	0
* Right documentation	0	0	40	100
Calculate doses of dangerous drug certification by 2 nurses with signature	0	0	40	100
Medication storage area are locked at all times expect when nurses preparing medication	0	0	40	100
The medication storage area have good lighting ,good ventilation and clean	4	9.1	36	90.9
Each shift should count all medicine especially dangerous and documenting this number	0	0	40	100
Need to focus on drug expire	21	56.8	19	43.2

This table clarifies that 100% of studied nurses performed some items of safe handling of medication through right patient, right medicine, right dosage, right route, right time and right frequency and 56.8% of studied nurses' focus on drug expire. While the majority of studied nurses not performed another all items of safe handling of medication.

**Table (24):- Observation of Nurses' Performance of Proposed Standard of Infection Control in Dialysis Unit.**

Standard of infection control Items of infection control standard	Done		Not done	
	No	%	No	%
Hand washing have 3 types	0	0	40	100
* routine				
* healthy	0	0	40	100
* surgical	0	0	40	100
Use of personal protective equipment as	0	0	40	100
* masks				
* gloves	0	0	40	100
* Aprons	0	0	40	100
* Eye Protective	0	0	40	100
* Face Protective	0	0	40	100
* Over head	0	0	40	100
* Over shoes	0	0	40	100
Change bed linen between each patient	0	0	40	100
Followed the policy and procedure of cleaning and disinfecting the work surfaces	0	0	40	100
Expiry date should be recorded on the sterile materials	7	15.9	33	84.1
Provide a list of required sterile materials	0	0	40	100
Before installing the catheter should use sterile gauze with antiseptic solution	0	0	40	100
<b>Methods of anti pollution</b>				
Found 3 stages to re processing medical equipment are				
* Cleaning	6	13.6	34	86.4
* Cleansing	0	0	40	100
* Sterilization	0	0	40	100
<b>Staff has a policy that describe the safe handling of waste</b>				
The unit should provide the separation requirements of wastes	0	0	40	100
Put the bags of non acute hazards waste inside the patient's station	0	0	40	100
Put bags of normal non hazards wastes inside the nursing station	0	0	40	100

Standard of infection control	Done		Not done	
	No	%	No	%
Put safety boxes with sharp waste in appropriate closed area not inside the station	0	0	40	100
Closed safety boxes after filled 3\4	0	0	40	100
Deal safe with patient's spillage blood and secretions	0	0	40	100
<b>Isolation in dialysis unit</b>				
Isolated rooms for patients with hepatitis C,B a and aids with allocated nurses for them	0	0	40	100
Provide patient with hepatitis C,B and aids with special devices not used by other patient	0	0	40	100
Identified rooms for male and female	0	0	40	100
Physical separation between each patient	0	0	40	100
<b>The employee follow the policy of anti contamination when preparing a medication</b>				
Prepared a medication for each patient individually	0	0	40	100
Cleaned and disinfected trays specialty for medication between each patient	0	0	40	100
<b>Health maintenance of the workers</b>				
Wear special clothes(personal protective) to protect them selves	0	0	40	100
Nursing staff shouldn't eat in the unit	9	20.5	31	79.5
All workers in the unit should be vaccinated against hepatitis B	0	0	40	100
<b>Unit policy for cleansing dialysis machine include the following</b>				
The nurse wear protective clothes	0	0	40	100
At the beginning and end of the day and after each use should rinse and clean the machine	0	0	40	100
Use chlorine diluted with 20CM\liter water to clean the machine from abroad	0	0	40	100
Cleaned the parts of keys in machines by use alcohol	0	0	40	100
During preparation of dialysis machine should kept the intravenous tube in residues container	0	0	40	100
Use payment process to cleansing the pipes of the machine	0	0	40	100
Cleansing the container for the disposal of waste resulting from nomination daily process	0	0	40	100
Shouldn't allow the waste of dialysis machine back again to the machine	40	100	0	0

This table shows that the majority of studied nurses not performed all items of standard of infection control except the item of intervention is necessary drugs diuretics as directed by doctor 100% of studied nurses performed it.

**Table (25):- Observation of Nurses' Performance of Proposed Standard of Patient Care in Dialysis Unit.**

Standard of patient care Items of patient care standard	Done		Not done	
	No	%	No	%
Patients are directed towards maintaining a place of catheter clean and dry	10	22.7	30	77.3
Patients are directed toward signs of infection (fever , feeling cold , chills , pain , the emergence of leak placement )	0	0	40	100
During the dialysis process allow patients to eat their food	40	100	0	0
Patients are directed toward maintaining nutrition with low sodium , potassium , phosphate moderate protein , carbohydrate and fat	0	0	40	100
Patients are directed toward eat fresh fruits and vegetables to supply the necessary vitamins	0	0	40	100
Patients are directed toward reducing the intake of salted food	37	93.2	3	6.8
Patients are directed toward maintaining personal hygiene to reduce the skin irritation resulting from the increase of urea	0	0	40	100
Patients are directed toward maintaining the clean lines of the mouth and repeated encouragement to chew gum to stimulate saliva flow to reduce thirst	0	0	40	100
Patients are directed toward optimal use of laxatives to reduce the irritation of the colon as result of the high percentage of urea as directed by physician	0	0	40	100
Intervention is necessary drugs diuretics as directed by your doctor	40	100	0	0
Be installed the urinary catheter to monitor urine output	0	0	40	100
Patients with renal failure directed toward not taking antibiotics such as gentamicin, streptomycin and analgesics such as aspirin, ibuprofen	0	0	40	100
Clarify how treatment of the patient to reduce unrest	0	0	40	100

<b>Standard of patient care</b>	<b>Done</b>		<b>Not done</b>	
	<b>No</b>	<b>%</b>	<b>No</b>	<b>%</b>
Nurses make patient's assessment when entering the dialysis unit include :-				
1- Assess vital signs	17	38.6	23	61.4
2- Assess the degree of awareness	17	38.6	23	61.4
3- Evaluation of the patient's weight	17	38.6	23	61.4
Be alert to dialysis patient not to take blood pressure medication during the process of dialysis, but must be taken before starting dialysis process at least one hour to prevent decline in blood circulation	0	0	40	100

This table clarifies the almost studied nurses not performed all items of patient care except in items of ‘allow patient eat their food during the dialysis process and make intervention with diuretic drugs according to doctor opinion’ 100% of studied staff nurses are performed it. And 93.2% of nurses performed item of patients are directed toward reducing the intake of salted food.



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**Section IV:**

**Table (26):- Mean and Standard Deviation of Nurses' Performance of Proposed Process Standards in Dialysis Unit.**

<b>Standards</b>	<b>n= 44</b>		
	<b>Max score</b>	<b>Mean</b>	<b>± SD</b>
Standard 5 : <b>Documentation</b>	11	5.11	± 0.84
Standard 6 : <b>Safe Handling of Medication</b>	13	7.05	± 0.77
Standard 7 : <b>Infection Control</b>	41	8.31	± 2.03
Standard 11 : <b>Patient Care</b>	17	6.61	± 1.01
<b>TOTAL</b>	<b>82</b>	<b>27.08</b>	<b>± 6.85</b>

This table clearly shows that the performance of studied staff nurses was poor in all process standards except for standard of nursing station, safe handling of medication and documentation were average performance.

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**Section V:**

**Table (27):- Correlation Coefficient between Nurses' Performance and Their Age, Experience and Experience in Work Place.**

	Nurses performance	
	r	P – value
Age	- 0.256	0.082
Experience	- 0.319	- 0.035*
Experience in work place	- 0.178	0.284

\*Statistically significance  $p \leq 0.05$

This table clarifies that there was negative correlation between nurses' age, experience in work place and nurses' performance, while there was negative significant correlation between staff nurses' performance & experience.