

Postpartum nurse's Compliance with Safety Measures

Abeer Shawky Mohamed Attia, lecturer

Obstetrics and Gynecologic Nursing, Ministry of Health, Dar Ismail Institute

Maha Mohamed El Habashy, Professor

Obstetrics and Gynecologic Nursing, Faculty of Nursing, Alexandria University

Isis Emile Mikheal Gohar, Assistant Professor

Obstetrics and Gynecologic Nursing, Faculty of Nursing, Alexandria University

Abstract:

Background: Women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. **Aim:** To assess postpartum nurse's compliance with safety measures. **Settings:** The study will be carried out at the all postpartum units in five hospitals in Alexandria. **The Tool one:** Nurses knowledge about safety measures during postpartum period. This tool divided into two parts: **The Part I:** Socio-demographic data structured Questionnaire: It will include basic data of the study. **The Part Two:** Nurses knowledge about safety measures during postpartum period. **Tool two:** Postpartum nurses' compliance with Safety measures guidelines observational checklist: This tool will be adapted by the researcher from ministry of health and WHO. **Results:** The study revealed that more than half (55%) of the studied nurses had poor score compared to 41% of them had fair score and only 4% of the studied nurses had good score of knowledge. It was observed that more than half on the studied nurses (53.00%) had poor total score of compliance while 47.00% of them had fair score **Conclusion:** The study clarified that there is no statistically significant relationship between the studied nurses total score of compliance and their knowledge regarding safety measures during postpartum period. **Recommendations:** Reinforce regular supervision of nurses in the postpartum to ensure that they comply with patient safety measures.

Key words: Postpartum Period, Patient Safety Measures.

Introduction

Improving the quality of care for maternal and newborn health is important if health outcomes for mothers and babies are to continue to improve (WHO Patient Safety.2017), (WHO Patient Safety. 2014).

WHO Patient Safety has been created to facilitate the development of patient safety policy and practices across all WHO Member States and to act as a major force for patient safety improvement across the world. A world where every patient receives safe health care, without risks and harm, every time, everywhere. To facilitate sustainable improvements in patient safety and managing risks to prevent patient harm (WHO Patient Safety. 2017), (WHO

Patient Safety. 2014). The patient safety goals that include Identify patient correctly, Improve the safety of high alert medication, ensure right site, right patient, Reduce the risk of health care associated infections improve effective communication, Reduce the risk of patient harm resulting from falls (WHO Patient Safety. 2017).

Identify patient correctly first, to identify the individual as the person for whom the service or treatment is intended. Second, to match the service or treatment to that individual. Patients are identified before providing treatments and procedures e.g. administering medications, blood, or blood products, serving a restricted diet tray, providing radiation therapy, taking blood and other specimens for clinical testing and

performing cardiac catheterization or diagnostic radiology procedure (**Gloria leifer et al.,2011**), (**Joint Commission International. 2017**).

Effective communication, process to improve the effectiveness of verbal and/or telephone communication among caregivers, Verbal medication orders are reserved for code/emergency situations ONLY. Improve the safety of high alert medication, Medications that pose an increased risk of causing significant harm to patients if used in error. Independent double checks in handling is one of the safety measures (**The Joint Commission. 2014**).

Ensure right site, right patient, Patient's identity (two identifiers), procedure to be performed, correct procedure side/site, necessary imaging, equipment or special requirements are present. Reduce the risk of health care associated infections, implements evidence-based hand-hygiene guidelines to reduce the risk of healthcare-associated infections (**The Joint Commission. 2014**).

The hospital develops and implements a process to improve accuracy of patient identification to identify the individual as the person for whom the service or treatment is intended and to match the service or treatment to that individual, improve effective communication develops and implements a process to improve the effectiveness of verbal and/or telephone communication among caregivers, develops and implements a process to improve the safety of high-alert medications that pose an increased risk of causing significant harm to patients if used in error, develops and implements a process for ensuring correct-site, correct-procedure, and correct-patient surgery and adopts and implements evidence-based hand-hygiene guidelines to reduce the risk of healthcare-associated infections (**Jayne E Marshall et al., 2014**), (**Ministry of health and population et al.,2013**).

Reduce the risk of patient harm resulting from falls, The hospital develops and implements a process to reduce the risk of patient harm resulting from falls (**Jayne E Marshall et al., 2014**) (**Stephanie et al., 2015**), Therefore, this study is necessary to Assess Postpartum nurse's Compliance with Safety measures.

Aims of the study

The aim of this study is to: Assess postpartum nurse's compliance with safety measures.

Research question

What is the level of postpartum nurse's compliance with safety measures?

Materials and Method

Materials:

Design: A descriptive research design was utilized.

Settings:

This study was carried out at all the postpartum units in five hospitals in Alexandria Governorate namely these hospitals were: El-Shatby maternity Hospital, Maternita Hospital, Dar-Ismaeel Hospital, El Gomhoria Hospital, Abo-Qir General Hospital.

Subjects:

All nurses working at the previously mentioned settings and providing direct care for postpartum women (100 nurses) were included in the study.

Tools: Two tools were used to collect the necessary data as follow:

Tool one: Nurses knowledge about safety measures during postpartum period structured Questionnaire: It was developed by the researcher after reviewing of recent and relevant literatures, and it was divided into two parts:

Part I: Socio-demographic characteristics: It included basic data of the study subjects such as age, marital

status, academic preparation, position, years of experience since graduation and years of experience in postpartum department.

Part II: Nurses knowledge about safety measures during postpartum period Questionnaire.

It was developed by researcher after extensive review of recent and relevant literature⁽¹³⁻¹⁴⁾. It comprised of 30 items and included 2 main parts of questions as follows: general knowledge about postpartum period (12 items) and safety measures during postpartum (18 items). Nurses' response varied between incorrect answer (1), correct but incomplete (2), correct and complete (3).

The total score for each subject ranged between 30 and 90.

Nurses' total score of knowledge was ranked as follows:

-Poor for a total score <50 -Fair for a total score 50<70 -Good for a total score ≥70

Tool two: Postpartum nurses' compliance with Safety measures guidelines observational checklist:

This tool was adapted by researcher based on ministry of health and WHO (**The Joint Commission 2013- Ministry of health and population 2013**). to assess nurse's compliance with guidelines for safety measures during postpartum period. It contains 40 items grouped under 6 main sections: (1) Identifying patient correctly, (2) Improvement of effective communication, (3) Improvement of the safety of high alert medication, (4) Ensuring right site and right patient, (5) Reducing the risk of health care associated infections and (6) Reducing the risk of patient harm resulting from falls.

Nurses' compliance was scored as follows: not done (1). correct but incomplete done (2), correct and complete done (3).

The total score ranged between 40-120.

The total score of nurses' compliance was ranked as follows:

-Poor compliance for a total score <67

-Fair compliance for a total score 67<94.

-Good compliance for a total score >94.

Method:

The study was accomplished as follows.

- An approval from Ethical Research Committee, faculty of Nursing-Alexandria university, was obtained.
- An official letter from the Faculty of Nursing, Alexandria University was submitted to the responsible authorities of the study settings to obtain their permission to collect data after explanation of research purpose.
- Tool I was developed by the researcher based on extensive review of recent, relevant literature.
- Tool II was adapted from WHO and the Ministry of Health guidelines in Egypt for postpartum period and patient safety.
- Tool I, II were tested for content validity by a jury of five experts in the related field and the necessary modifications were carried out accordingly.
- Tool's reliability was tested by Alpha Cronbach test and the result was statistically acceptable. The value of tool (I) was 0.79 and tool (II) was 0.82.
- A pilot study was carried out on 10 women who were excluded from the main study sample. To test clarity, relevance and applicability of the tools and the necessary modifications were done.
- The researcher observed the nurses during providing postpartum care by using tool II (the observational checklist), each nurse was observed by the researcher two times in different shifts to determine compliance. After completing the observations, Tool I was distributed among nurses to be self-filled. Collection of data covered a period of 9 months from the beginning of March 2019 till the end of November 2019.

- **Descriptive statistical measures**, which included: numbers, percentages, and averages (Minimum, Maximum, Arithmetic mean (\bar{X}), Standard deviation (SD). **Statistical analysis tests**, which included: Chi square, student T test and paired T test. **Graphical presentation included:** Bar graphs were done for data visualization.

- **Ethical considerations:**

For each recruited subject, the following issues were considered: Securing the subject's informed consent. Keeping the subject's privacy. Assuring subjects data confidentiality. The right to withdraw from the study at any time.

Results:

Table (1) clarifies the number and percent distribution of the studied nurses according to their Socio-demographic data. Age demonstrates that the same percent of the study sample (23%) age was 20 to less than 30 years old and was 30 to less than 40 years old, respectively. While (37%) of them age was forty to less than fifty years old, also it was observed that the nurses mean age was 38.90 ± 10.82 years old. Marital status showed that more than two thirds (70%) of them were married. Regarding academic preparation, more than three fifths (68%) of them had diploma of secondary school of nursing. While (20%) of them had diploma of technical Institute of nursing. Only (12%) of the nurses had bachelor's degree of nursing. In relation to position, less than two third (68%) of them worked as staff nurse while (20%) of them worked as a technical nurse while only (12%) of them worked as a professional nurse. In addition, years of experience since graduation display that more than one half of the subject (53%) years of experience was twenty years while the same percent (13%) of them years of experience was ten years and fifteen years, respectively. Moreover, more than one third (38%) of

nurse's years of experience in post-partum department were twenty years. While an equal percent (10%) of them year experience in postpartum department was ten and fifteen years, respectively.

Figure (1) represents percent distribution of the studied nurses to their general knowledge about postpartum period. It was obvious that more than half (52%) of the studied nurses had good score of knowledge compared to 37% of them had fairly score of knowledge and only (11%) of them had poor knowledge.

Figure (2) show percent distribution of the studied nurses to their knowledge about safety measures during postpartum period. This figure reflects that the majority (86%) of the studied nurses had poor score compared to (13%) of them had fair score whereas only (1%) of the studied nurses had good score of knowledge.

Table (2): outlines the number and percent distribution of the studied nurses to their compliance with safety measures guidelines in relation to **patient identification**. It was noticed that 41% of the nurses incompletely followed the standardize patient identification during the first observation compared to more than three quarters (78%) of the study subject completely followed them during the second observation.

Regarding checking the patient's identification and involving patients in the process of patient identification during the first observation (72% and 70%) respectively had done it incompletely compared to 52% of them who had checked the patient's identification incompletely and nearly three quarters (72%) of the subject had involved the patients in the process of patient identification completely during the second observation.

Improvement of effective communication. It was observed that monitoring changes in the patient's communication status was incompletely

done by more than two thirds 67 % of the studied nurses during the first observation while completely done by 71% of them in the second observation.

Concerning, accommodation to patient cultural, religious, beliefs, it was completely done by (51% &65%) of the studied nurses during the first and second observation, respectively. In addition, monitoring changes in dietary needs or restrictions that may have an impact on patient's care was incompletely done by 53% of the studied nurses first observation while completely done by more than half (59%) of them during the second observation .

Furthermore, identifying the patient's preferred language was incompletely done by more than one half (51%) of the nurse during the first observation and completely done by 68% of them in the second observation.

Table (3): Distribution of the studied nurses to their compliance with safety measures guidelines in relation to improvement of the safety of **high alert medication**. It was observed that identifying look-alike, sound-alike was not done by three quarters (75%) of the studied nurses in the first observation while incompletely done by 65% by them during the second observation. Regarding, setting dosing limits, it was incompletely done by more than four fifths (84%) of them during the second observation and also, using data/information from alerts and overrides to redesign standardized processes was not done by almost two thirds (63%) of the studied nurses during the first observation while incompletely done by 66% by them during the second observation. Concerning, coordinating the meal and medication times was completely done by (55%) of the subjects during the second observation.

In relation to ensuring **right site and right patients**. It was observed that checking the name in the order against the

name of the patient was not done by (72%&51%) of the studied nurses in the first and second observation, respectively. Regarding, asking the patient to identify himself/herself, it was not done by (62%) of the studied nurses in the first observation while completely done by 66% by them during the second observation. Moreover, more than three quarters (78%) of them did not check the medication label in the first observation while was checked it incompletely by 92% of them in the second observation. However, checking appropriateness of the route ordered was not done by 69% of the subjects in the first observation and was incompletely done by more than three quarters (89%) of them in the second observation.

Meanwhile (66%) of the subjects who confirmed that the patient can take or receive the medication by the ordered route did not do it in the first observation while 64% of them incompletely did it in the second observation. Furthermore, Checking the frequency of the ordered medication was not done by more than two thirds (67%) of the nurse during the first observation while was incompletely done by 62% of them in the s second observation. In relation, to confirmation when the last dose was given, it was not done by 53% and incompletely done by the same percent 53% of them during the first and second observation, respectively. Moreover, double checking that the ordered dose is giving at the current time, was completely done 57% &47% by of the studied nurses during the first and second observation, respectively. Lastly, documentation of the administration after giving the ordered medication, was not done by (94% &55%) of the studied nurses during the first and second observation respectively.

Table (4): Distribution of the studied nurses to reduction of the risk of health care **associated infections**. It was observed that following standardized order for each surgical procedure and standardizing

perioperative skin antiseptic practices was completely done by the same percent (40%) of the studied nurses during the first observation and completely done by (70% & 75%) respectively in the second observation..

As regards, adherence to established guidelines to ensure basic aseptic was incompletely done by more than two thirds 63% of the study sample in the first observation compared to completely done by more than half (57%) of the nurses during the second observation. Concerning, establishment of a culture of safety that provides an environment of open and safe communication among the surgical team, it was incompletely done by 59% of the studied nurses in the first observation and completely done by 51% of them during the second observation. In addition, establishment of a system of surgical site infection data was incompletely done by about more than half (55%) of the studied nurses during the first observation while completely done by 59% of them in the second observation.

Reduce the risk of fall. It was observed that conducting falls and injury risk assessment upon admission was done completely by (100% & 98%) of the studied nurses during the first and second observation, respectively. Also, reassessing risk daily and with changes in patient condition, was completely done by (99% & 100%) of the studied nurses during the first and second observation. As regards, communicating risk across the team; use handoff forms, visual cues were completely it was done by more than four fifth 83% of the study sample in the first observation compared to completely done by more than four quarters (90%) of the nurses during the second observation. In relation, round every 1 to 2 hours for high-risk patients, it was completely done by 92% and completely done by more than four quarters (90%) of them during the first and second observation. Meanwhile (65%) of the subject's efforts to prevent falls,

incompletely done in the first observation while 81% efforts to prevent falls completely done in the second observation. Finally, implement patient-specific intervention to prevent falls and injury, it was incompletely done by (78%) of the studied nurses in the first observation and completely done by 53% of them in the second observation.

Figure (3) shows the percent distribution of nurses to their total score of compliance with safety measures guidelines in the 1st and 2nd observations. This figure reflects that the majority (90%) of the studied nurses had poor compliance in 1st observation compared to more than one tenth (12%) of them who had poor compliance in 2nd observation. While (10%) of the studied nurses had fair compliance in 1st observation compared to more than four fifths (88%) of them who had fair compliance in 2nd observation. Finally, no one of the study nurses (0%) had good compliance in the 1st and 2nd observation, respectively.

Table (5): shows relationship between the studied nurses total score of compliance with safety measures guidelines during postpartum and their total score knowledge regarding safety measures during postpartum period no statistically significant relationship between the studied nurses total score of compliance and their total score knowledge regarding safety measures during postpartum period was found as ($p=0.757$). This mean that nurses who obtained (56.4%) poor total score of compliance had poor total score of knowledge. While (51.2%) of the nurse who had fair compliance obtained fair total score of knowledge.

Discussion

Nurse's compliance with safety measures affects directly the quality of health care. Postpartum quality of care is considered a vital part in promoting maternal and neonatal health symbolizes

the process of nursing care. Nurses should have sound of knowledge and compliance with safety measures to practice it on a day-to-day basis as an integral part of patient's care. Accordingly, the hospital develops and implements a process to improve the patient's safety.

Regarding Standardized patient identification the present study showed that more than three quarters of the study subject completely followed them during the second observation. This is in congruent with study by **(Fadwa et al.,2019)** who revealed that HCPs used two identifiers in observations more than tenth, with the majority of HCPs checking the patient's name only

In obstetrics and gynecology, medical errors cause high healthcare costs and negative outcomes for women **(Slabuszewska. 2020)**. Specifically, communication errors have been identified as the main cause in more than two thirds of all perinatal deaths **(Sentinel Event Statistics. 2020)**. A key component to reducing errors and thus ensuring patient safety is promoting good patient-provider communication and effective communication between healthcare professionals **(Gan et al., 2018)**. However, communication in obstetric care needs to be improved, and this need has been reflected in public debates about obstetric violence, and in the face of emergencies **(Martínez-Galiano. 2020)**. The result of the present study showed that, four fifths of studied nurses mean score of the two observation was fair score regarding improvement of communication.

However, a majority of studies More than half strongly focused on communication as a standalone intervention, thus indicating that the communication component is crucial. Nevertheless, more research in terms of dismantling studies is needed **(Sonia Lippke. 2021)**.

As regards the **improvements of the safety of high alert medication** revealed that the level of performance regarding improvement of safety of high alert medication the identifying look _ alike, sound alike was not done by three quarters more than two thirds of the studied nurses in the first observation while incompletely done by two thirds by the studied nurses during the second observation. The study findings in line with **(Lam et al.,2014)** who reported that most mothers were not satisfied by medication administration guidance by nurses during postpartum period.

Nurses particularly the midwife, should be very careful when administering the high alert medications specially oxytocin and follow it up with full monitoring as, it can be harmful to the life of the mother **(Mosbys et al., 2015)**. The result of the present study showed that, more than four fifth of the studied nurse mean score of two observation was poor in relation to improvement of medication safety

This is in line with a study done by **(Amal Mohammed Gamal et al., 2020)** Who stated that the majority of studied nurses had unsatisfactory practice after women use of induction oxytocin.

Regarding **health care associated infection** it was more than three quarters of the studied in corrected or did not know about this item.

Regarding the risk of infection associated with health care is reduced with incorrect / don't know level of knowledge, this is in line with the result finding of four quarters o of studied nurses had a poor score of knowledge regarding to safety measures during postpartum period, more than of the studied nurses were staff nurse and graduated from a secondary school of nursing. In another studies **(Ongun et al., 2017)**, **(Henok B. 2020)** stated that nurses with poor knowledge about patient safety were vast majority of them.

As regards the level of compliance in relation to reduce risk of infection it was observed that the total score of compliance in the mean of two observation revealed that only a minority of the studied nurses had good compliance. And this is in the line with the study results by (Hassan et al., 2018) who reported that the majority of nurses had low levels of compliance with standard precaution practices.

This result in line with (Donati et al., 2020) who studied the feedback to improve nurses' compliance with standard precaution and antiseptic practices and reported that nursing staffs understanding compliance regarding the importance of controlling infectious diseases.

Concerning, reduction of the risk of infection the total score of compliance in the mean of the two-observation revealed that more than one half of the studied nurses had poor total score while 47% of them had faire score.

In the line, this result fit with the finding of (Suzy Lockwood et al., 2013), stated that with approval from nursing administration , a fall prevention team was formed with a goal to decrease the incidence of postpartum – centered approach to fall prevention was implement and all postpartum staff agreed to participate. The study results revealed that more than half of studied nurses total score of compliance with safety measures guidelines during postpartum period were poor. While more than two fifth of 48% had fair compliance

Statistics reported by World Health Organization (WHO), 1,400,000 people suffer from complications related to (health care associated infection (HAI). The rate of preventable hospital acquired infections in developing countries due to medical care is estimated to be about 40% or above (World Health Organization. 2014).

The result showed that, about more than half of the studied nurses' mean score

of compliance for two observations to reduce of the risk of infection in postpartum period was fair.

This result is contradicted with two studies. Firstly: the study conducted by (Imad Fashafsheh et al., 2016) Who stated that the compliance with standard precaution among the midwives and nurses the average was 83.8%. It could be said from this result that the level of compliance with standard precaution is high. This may due to the work climate of the hospitals. Secondly: (Fashafsheh et al., 2015) who has done study about" Knowledge and Practice of Nursing Staff towards Infection Control Measures in the Palestinian Hospitals" which showed that the majority of the Palestinian midwives and nurses had good practice towards infection control.

Conclusion:

Based on the findings of the present study, it could be concluded that:

The present study clarified that nurses obtained more than half of the studied nurses had good score of knowledge about the general knowledge about postpartum period.

Recommendations:

Based on the findings of the present study, the following recommendations are suggested:

- Ministry of Health should provide nurses with hand out guidelines to improve women health and safety during postpartum period.
- Periodic participation of nurses in training programs about postpartum to improve their knowledge, skills and ensuring from their compliance with guidelines for patient safety.
- Reinforce regular supervision of nurses in the postpartum to ensure that they comply with patient safety guidelines.

Table (1): Number and percent distribution of the studied nurses according to their Socio-demographic data

Socio-demographic data	Total N=100	
	No.	%
Age (years)		
- 20-	23	23.0
- 30-	23	23.0
- 40-	37	37.0
≥50	17	17.0
Min – Max	20-58	Mean ± SD
		38.90 ± 10.82
Marital status		
- Single	20	20.0
- Married	70	70.0
- Divorced	4	4.0
- Widowed	6	6.0
Academic preparation		
- Diploma of Secondary School of Nursing	68	68.0
- Diploma of Technical Institute of Nursing	20	20.0
- Bachelor degree of Nursing	12	12.0
Position		
- Staff nurse	68.0	68.0
- Technical nurse	20.0	20.0
- Professional nurse	12.0	12.0
Years of experience since graduation		
- <5	15	15.0
- 5-	13	13.0
- 10-	6	6.0
- 15-	13	13.0
≥20	53	53.0
Min – Max	1-41	Mean ± SD
		18.61 ± 11.18
Years of experience in post-partum department		
- <5	22	22.0
- 5-	20	20.0
- 10-	10	10.0
- 15-	10	10.0
≥20	38	38.0
Min – Max	1-38	Mean ± SD
		14.37 ± 10.48

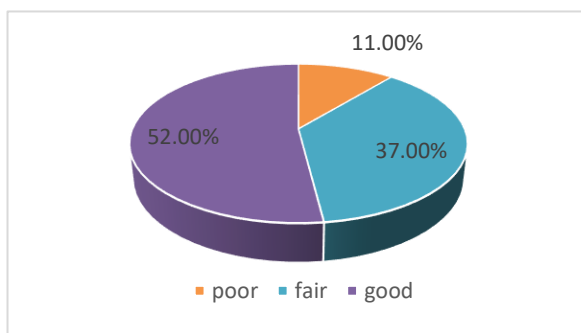


Figure (1): percent distribution of the studied nurses to their general knowledge about postpartum period.

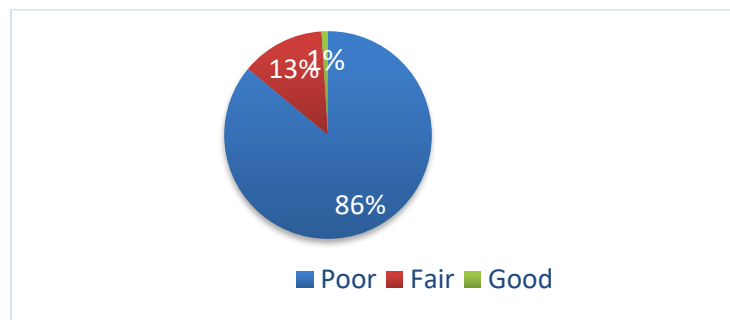


Figure (2) percent distribution of the studied nurses to their knowledge about safety measures during postpartum period .

Table (2): Number and percent distribution of the studied nurses to their compliance with safety measures guidelines in relation to:

Patient identification	Levels of Performance											
	First Observation (shift)						Second Observation (shift)					
	ND		ID		CD		ND		ID		CD	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Standardize patient identification.	20	20.0	41	41.0	39	39.0	2	2.0	20	20.0	78	78.0
2. Develop an organizational protocol for identifying patients	17	17.0	44	44.0	39	39.0	0	0.0	19	19.0	81	81.0
3. Check the patient's identification.	11	11.0	72	72.0	17	17.0	1	1.0	52	52.0	47	47.0
4. Involve patients in the process of patient identification.	11	11.0	70	70.0	19	19.0	2	2.0	26	26.0	72	72.0
Improvement of effective communication:												
1. Monitor changes in patient's communication status	10	10.0	67	67.0	23	23.0	2	2.0	27	27.0	71	71.0
2. Involve patients and families in the care process	16	16.0	58	58.0	26	26.0	0	0.0	32	32.0	68	68.0
3. Provide patient education that meets patient needs.	19	19.0	50	50.0	31	31.0	1	1.0	39	39.0	60	60.0
4. Address patient mobility needs during treatment	28	28.0	45	45.0	27	27.0	2	2.0	39	39.0	59	59.0
5. Accommodate to patient cultural, religious, beliefs.	19	19.0	30	30.0	51	51.0	0	0.0	35	35.0	65	65.0
6. Monitor changes in dietary needs or restrictions that may impact the patient's care.	30	30.0	53	53.0	17	17.0	1	1.0	40	40.0	59	59.0
7. Communicate patient's need information to the care team.	9	9.0	53	53.0	38	38.0	0	0.0	36	36.0	64	64.0
8. Inform patients of their rights.	4	4.0	23	23.0	73	73.0	0	0.0	25	25.0	75	75.0
9. Identify the patient's preferred language.	2	2.0	51	51.0	47	47.0	0	0.0	32	32.0	68	68.0
10. Ask the patient if there are any additional needs that may affect his or her care	7	7.0	77	77.0	16	16.0	1	1.0	27	27.0	72	72.0

ND Not Done **ID** Incomplete Done **CD** Complete Done

Table (3): Number and percent distribution of the studied nurses to their compliance with safety measures guidelines in relation to:

Improvement of the safety of high alert medication.	Levels of Performance											
	First Observation(shift)						Second Observation(shift)					
	ND		ID		CD		ND		ID		CD	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Identify “look-alike, sound-alike”	75	75.0	25	25.0	0	0.0	26	26.0	65	65.0	9	9.0
2. Set dosing limits.	46	46.0	42	42.0	12	12.0	3	3.0	84	84.0	13	13.0
3. Use data/information from alerts and overrides to redesign standardized processes.	63	63.0	35	35.0	2	2.0	8	8.0	66	66.0	26	26.0
4. Coordinate meal and medication times.	52	52.0	45	45.0	3	3.0	7	7.0	38	38.0	55	55.0
Ensuring right site and right patients:												
1. Check the name in the order against the name of the pts.	72	72.0	26	26.0	2	2.0	51	51.0	40	40.0	9	9.0
2. Ask the patient to identify herself.	62	62.0	37	37.0	1	1.0	2	2.0	32	32.0	66	66.0
3. Check the medication label.	78	78.0	19	19.0	3	3.0	1	1.0	92	92.0	7	7.0
4. Confirm the appropriateness of the dose using a current drug reference.	65	65.0	33	33.0	2	2.0	4	4.0	89	89.0	7	7.0
5. Check appropriateness of the route ordered.	69	69.0	31	31.0	0	0.0	10	10.0	79	79.0	11	11.0
6. Confirm that the patient can take or receive the medication by the ordered route.	66	66.0	33	33.0	1	1.0	23	23.0	64	64.0	13	13.0
7. Check the frequency of the ordered medication.	67	67.0	25	25.0	8	8.0	17	17.0	62	62.0	21	21.0
8. Confirm when the last dose was given.	53	53.0	35	35.0	12	12.0	14	14.0	53	53.0	33	33.0
9. Double check that the order dose is giving at the current time.	5	5.0	38	38.0	57	57.0	6	6.0	47	47.0	47	47.0
10. Document administration after giving the ordered medication.	94	94.0	5	5.0	1	1.0	55	55.0	42	42.0	3	3.0

ND Not Done **ID** Incomplete Done **CD** Complete Done

Table (4): Number and percent distribution of the studied nurses to their compliance with safety measures guidelines in relation to :

Reduce the risk of health care associated infections.	Levels of Performance											
	First Observation(shift)						Second Observation(shift)					
	ND		ID		CD		ND		ID		CD	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Follow standardized order for each surgical procedure.	23	23.0	37	37.0	40	40.0	3	3.0	22	22.0	75	75.0
2. Standardized perioperative skin antiseptic practices.	27	27.0	33	33.0	40	40.0	0	0.0	30	30.0	70	70.0
3. Adhere to established guidelines to ensure basic aseptic.	19	19.0	63	63.0	18	18.0	1	1.0	42	42.0	57	57.0
4. Establish a culture of safety that provides an environment of open and safe communication among the surgical team	17	17.0	59	59.0	24	24.0	2	2.0	47	47.0	51	51.0
5. Establish system so surgical site infection data.	36	36.0	55	55.0	9	9.0	3	3.0	38	38.0	59	59.0
6. Develop a protocol to provide guidance on blood transfusion practices.	22	22.0	67	67.0	11	11.0	1	1.0	41	41.0	58	58.0
Reduce the risk of fall:												
1. Conduct falls and injury risk assessment upon admission	0	0.0	0	0.0	100	100.0	0	0.0	2	2.0	98	98.0
2. Reassess risk daily and with changes in patient condition	0	0.0	1	1.0	99	99.0	0	0.0	0	0.0	100	100.0
3. Communicate risk across the team; use handoff forms, visual cues.	1	1.0	16	16.0	83	83.0	0	0.0	10	10.0	90	90.0
4. Round every 1 to 2 hours for high-risk patients	0	0.0	8	8.0	92	92.0	0	0.0	10	10.0	90	90.0
5. Efforts to prevent falls.	5	5.0	65	65.0	30	30.0	0	0.0	19	19.0	81	81.0
6. Implement patient-specific intervention to prevent falls and injury.	4	4.0	78	78.0	18	18.0	2	2.0	45	45.0	53	53.0

ND Not Done **ID** Incomplete Done **CD** Complete Done

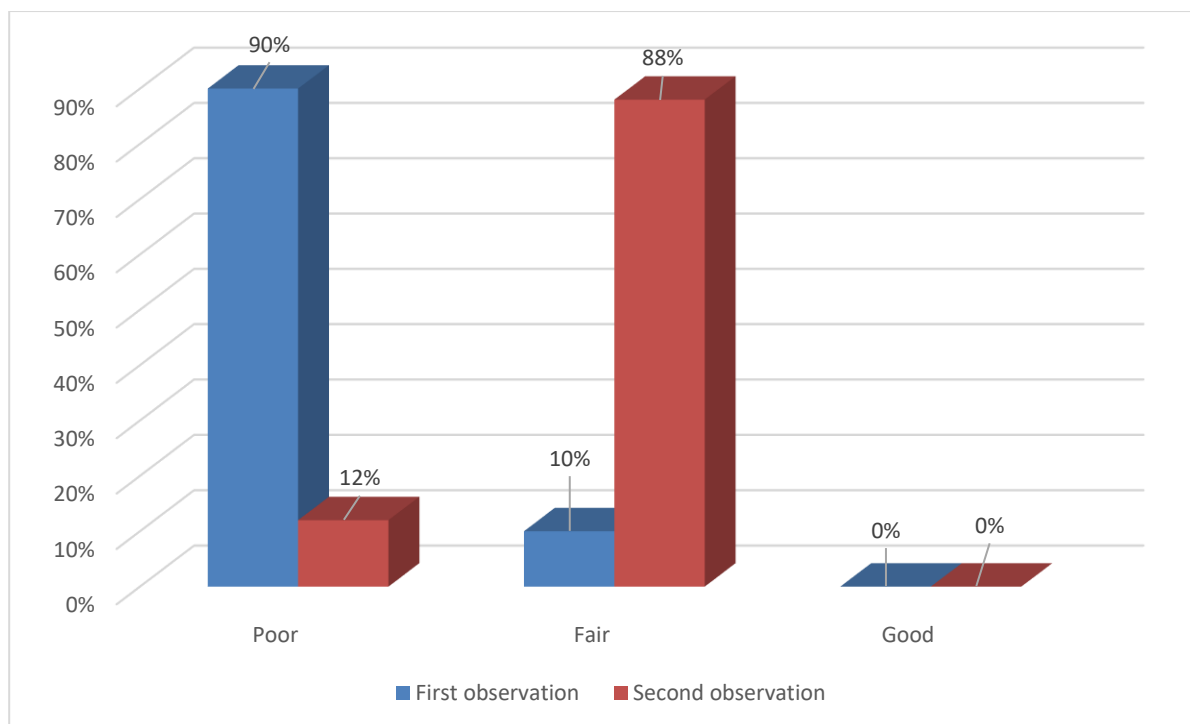


Figure (3): percent distribution of studied nurses to their totals score of compliance with safety measures guidelines in the 1st and 2nd observations.

Table (5): The relationship between the studied nurses total score of compliance with safety measures guidelines during postpartum and their total score knowledge regarding safety measures during postpartum period.

Nurse's total score of knowledge	Mean compliance				Total N=100		Test of Significance	Mean ± SD
	Poor (N=53)		Fair (N=47)		No.	%		
	No.	%	No.	%				
- Poor	31	56.4	24	43.6	55	55.0	X ² = 0.557 P=0.757 F= 0.743 P=0.479	92.33 ± 5.653
- Fair	20	48.8	21	51.2	41	41.0		91.93 ± 6 n.755
- Good	2	50.0	2	50.0	4	4.0		96.00 ± 11.55

X² Chi Square test F ANOVA Test * Statistically significant at p ≤ 0.05

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