

# The Role of Nursing in Surgical Operations in Health Facilities

Turki.R.Alotaibi<sup>1</sup>, Hayat.A.Alazhrani<sup>2</sup>, Somayyah.A.Alkhalidi<sup>3</sup>,  
Ebtisam.H.Algethami<sup>4</sup>, Amirah.G.Almuqati<sup>5</sup>, Khalid.A.Aldhafeeri<sup>6</sup>,  
Hana.M.Hawsawi<sup>7</sup>, Mashael.A.Alqahtani<sup>8</sup>, Eman.A.Madkhali<sup>9</sup>,  
Zainab.T.Barnawi<sup>10</sup>

Nursing specialist at Alnoor specialist hospital<sup>1</sup>

Nurse technician at Albohyrat PHC<sup>2</sup>

Nursing technician at King Faisal Hospital<sup>3</sup>

Senior specialist - Adult science of critical care nursing- King Faisal medical complex -  
Taif<sup>4</sup>

Specialist nursing- King Faisal medical complex - Taif<sup>5</sup>

Nursing technician - King Khalid general Hospital - Hafar Al-Batin<sup>6</sup>

Nursing specialist-king Saud medical city<sup>7</sup>

Midwife- maddah hospital<sup>8</sup>

Nursing technician- Primary health care center<sup>9</sup>

Nursing technician- Maternity and Children's Hospital in Mecca<sup>10</sup>

---

## Abstracts

The role of nurses in the operation room is very important and their duties and responsibilities are very important for the safety and hygiene of the patients during the process that even after the process. in most of the countries nurses are having a major role to play in the patient handling, keeping the track of anesthesia, attending doctors and many other such processes, these nurses are very experienced and know their jobs very well. This present study will evaluate the roles and responsibilities of nurses working in selected hospitals of Saudi Arabia. This study is based on primary data and uses Chi Square Test for the sake of analyzing data.

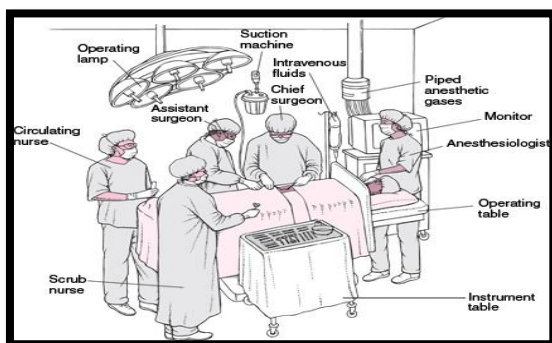
Keywords: Nurses, Operation room, roles and responsibilities.

## 1. Introduction

Intraoperative hone is exceedingly complex and challenging considering the defenselessness of the persistent. The intraoperative period begins when the quiet arrives at the working room (OR) and closes when the understanding gets exchanged to the postoperative ward. The care within the OR includes tall utilize of innovation and is diverse than the care given in other settings of the healing center. OR medical caretakers play an instrumental part in avoiding disease, keeping

up asepsis, dealing with rebellious, receiving therapeutic methods, anticipating complications, and taking care of organic arrangements. Also, medical caretakers play an fundamental part in arranging care and collaborating with the persistent, surgical group, and other healthcare suppliers. Persistent security amid surgery is one of the major alerts for intraoperative groups as antagonistic occasions happening amid this period is the major cause of inability and passing. Persistent security includes diminishing the threat of pointless hurt counting expectation of mistakes and avoidable unfavorable occasions to shield patients from damage. Major complications rise in 3% to 22% of surgeries, and the mortality rate is detailed as 0.4% to 0.8%. As the issue of understanding security takes a major toll, the World Wellbeing Organization calls for addressing the issue within the report Safe Surgery Spares Lives. These complications could be dodged in case patients are taken care of amid this period.

Nurses play an imperative part in keeping up the wellbeing and well-being of patients. One sort of nurture in specific is the perioperative nurse, which is commonly alluded to as the working room nurture. They are enlisted medical caretakers who pay attention of patients some time recently, after and amid surgery. OT nurture is mindful to the Therapeutic Facilitator, who is in charge of the administration and organization of understanding care. Charge medical caretakers are experienced enlisted medical attendants who have shown authority, administration and communication abilities. They are dependable for overseeing, administering and helping the nursing staff, giving authoritative bolster and understanding care. A healing center, clinic or wellbeing care office may have a few charge medical attendants, each mindful for a different move, division or specialized unit. OT in charge nurture is acting as a facilitator and their primary objective is to supply, secure, and successful care of surgical patients. The charge nurture is integrals included in guaranteeing that staff, patients, and gear come together consistently to move patients through the surgical prepare. It basic to understanding working room coordination is an examination of the communication of the OR charge nurture. Communication gives a premise for judgements that are bolstered by a social arrange of medical attendants, specialists, anaesthesiologists, specialists, and assistant staff.



Source: [https://www.rnpedia.com/nursing-notes/medical-surgical-nursing-notes/operating-room-team/#google\\_vignette](https://www.rnpedia.com/nursing-notes/medical-surgical-nursing-notes/operating-room-team/#google_vignette)

Figure1: Composition of Team at Operation Room

The OR charge nurse at that point gets to be a conduit for data stream, accepting, preparing, and communicating this data to others for the coordination of understanding care. The reason of OR charge nurse communication is to facilitate the exercises of the working room. Coordination of staffing is ordinarily face-to-face and with OR medical attendants.

All emergency personnel are expected to know and follow the hospital admissions criteria, guide lines, protocols, and the diagnosis and treatment standards in use in the Centre, and to ensure the correct compilation of clinical records and statistics in both computer and paper formats. The Main Duties and Responsibilities of the OT in Charge is

- 1. Management and supervision of sterilization services;
- 2. Preparation of the theatre for operations and organisation of the work of the national team in theatre;
- 3. Direct participation in surgical procedures;
- 4. To assist with clinical research and record keeping as required by the scientific programmes of the specialist sector of the Medical Division of emergency



Figure 2: Duties of Nurses in Operation Room

## 2. Review of Literature:

Errors take place in OR as the staff come from different disciplines with different instructive plans and work as bunches, which may cause surgical perplexities. Subsequently, the preventable botches can be reduced when OR staff are qualified in quiet security, clear frameworks are sought after step by step, and control structures are made and utilized. [1], [2] Moreover, viable communication among the OR staff decreases the surgical blunders and successful communication between the understanding and therapeutic and nursing staff improves understanding fulfillment. Guaranteeing quiet security within the OR incorporates anticipation of all avoidable restorative and surgical mistakes counting anticipating off-base individual, location, strategy, and held remote objects. [5] [7] [8] These errors can be avoided by organized communication with the understanding, specialist, and other healthcare group individuals. Moreover, adjust recognizable proof of patients who are at chance of tall blood misfortune, anesthesia or aviation route issues, history of hypersensitivities, and anticipation of surgical location disease is fundamental.

In addition, the blunders can be avoided amid the planning of surgical environment, instrumented, sutures, and drugs. [13] [14] [15] Moreover, persistent security can be improved through appropriate planning of methods, communicating with other colleagues, making a difference to ensure consistency with the surgical security checklist, and screening the advance within the surgeries and detailing to the board. In spite of all security checks, there's a chance for blunders, which may cause antagonistic occasions to surgical patients. Subsequently, it is basic that the medical attendants are learned around quiet security and do remedial activities as understanding advocates. Considering the surgical hazard for the patients, emphasize the part of medical caretakers in intraoperative quiet security and point out the vulnerability of patients experiencing surgery and the dangers related with the intraoperative environment. [8] [11] [16] In addition, Besides, each enrolled nurture encompasses a ethical and moral obligation to speak-up for the patient's best intrigued, appear quietude, respect, secure persistent independence, and self-esteem. Other than, responsibility of medical caretakers is fundamental for proficient nursing home and quiet safety.

At the author's division, there were few frequencies, such as example dismissal, hand cleanliness issues, blunders in needles, wipe checking, and skin tearing in 2017 and 2018. Essentially, there was one rate of skin injury during this period. This encouraged the creators to conduct the ponder to investigate the understanding of OR nurses' parts and obligations for quiet care and security within the intraoperative hone, which seem lead to ideal understanding security utilizing evidence-based hone.

### Objective of Study:

The main objective of this present study is to evaluate the role of nurses in the operation room and their importance in assisting doctors, attending patients, maintaining sanctity at the time of operation and after that.

## Hypothesis:

H<sub>0</sub>: There is a significant positive relation between the experience of nurses and safety of patient during operation.

H<sub>1</sub>: There is a no significant relation between the experience of nurses and safety of patient during operation.

## 3. Research Methodology:

- This present study is based on the role of nurses during the operation and their importance in attending patients before and after the process.
- Present study is based on primary data, first hand information collected directly from the respondents.
- The researcher has prepared a detailed questionnaire to collect the data from the respondents.
- For the sake of saving time and energy most of the questions were based on 5-point scale.
- Some amount of secondary data is being collected from various available sources to find the recent developments and future prospects for the point in question.
- The collected data was analyzed using Chi Square test but before that it was coded and then decoded for preparing the same for analysis.
- The researcher has used SPSS Ver. 22.0 for performing the Chi Square test.

## 4. Data Analysis and Interpretation:

### Summary of Chi Square Test

	Patient Safety							
	On the Basis of Experience				On the Basis of Training			
	Safety Checks	Anesthesia time track	Universal Protocol	OR Environment	Safety Checks	Anesthesia time track	Universal Protocol	OR Environment
Calculated Value	.159	.243	.159	.063	.445	.435	.053	.943
Table Value	3.67	2.827	3.67	5.537	1.621	1.664	5.878	2.860
	Preoperative Preparation							
	On the Basis of Experience				On the Basis of Training			
	Equipment Prep.	Pre OR Prep. Family	Interoperative	Intra Operative	Equipment Prep.	Pre OR Prep. Family	Interoperative	Intra Operative
Calculated Value	.035	.375	.040	.168	.943	.631	.703	.943
Table Value	6.705	1.962	6.436	3.571	2.860	6.145	5.504	2.860

	Time Management							
	On the Basis of Experience				On the Basis of Training			
	Workflo w Handling	Turnaroun d time	Team Manage.	Equipment reprocesses	Workf low Handl ing	Turnarou nd time	Team Manage.	Equipment reprocesses
Calculated Value	.939	.560	.687	.779	.897	.635	.070	.629
Table Value	2.917	6.781	5.641	4.795	3.528	6.113	14.488	6.164
	Staffing							
	On the Basis of Experience				On the Basis of Training			
	Adequac y of Staff	Health Status of Staff	Training of Staff	Rapport with staff	Adequ acy of Staff	Health Status of Staff	Training of Staff	Rapport with staff
Calculated Value	.928	.146	.575	.928	.605	.575	.176	.698
Table Value	5.745	17.101	10.47	5.745	6.378	10.473	16.353	9.053

### Interpretation:

The above given results of Chi Square test show that in most of the cases the respondent were agreed to the point in question, this shows that in the selected hospitals of Saudi Arabia, the nursing staff is trained and willing to attend the patients in the operation room. As the thumb rule of Chi Square test states that if the Table value for most of the cases is more than the Calculated value then the point in question is agreed and null hypothesis is accepted. In the above given results, for most of the cases, the respondents were found to be agreed to the point in question hence the null hypothesis is accepted and the alternate hypothesis is rejected.

### 5. Conclusion:

Based on these discoveries, as well a developing body of related writing, the nursing authority ought to consider that within the think about setting, in spite of the environment being secure and the quality of care is tall, there's continuously room for advancement and forms. They ought to work on progressing these angles of care with more versatile strategies of quiet security. These think about discoveries highlight the quality of speak-up culture of medical caretakers when persistent security concerns emerge. Speak-up culture might fortify understanding security by guarding against botches and recognizing and understanding blunders. It is imperative that medical attendants know and actualize the foremost current prove to avoid hurt to patients and advance the leading possible results. The display thinks about discoveries assert different nursing abilities for understanding security in intraoperative hone. Medical caretakers ought to have the capacity to be proficient in information and abilities to render secure persistent care. Too, they have to be work in concordance with the other individuals of the surgical group to provide ideal persistent security. The discoveries of this consider depicted a few of the obstacles in intraoperative understanding security such as staff deficiency and time weight. On the off chance that the nursing administration surveys the finding, it may offer assistance to diminish the work over-burden and progress understanding security and quality of care.

## WORKS CITED

---

- Collins, S. J., Newhouse, R., Porter, J., & Talsma, A. (2014). Effectiveness of the surgical safety checklist in correcting errors: A literature review applying reason's Swiss cheese model. *AORN Journal*, 100(1), 65-79. e5
- Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*, 25(5), 443-455. <https://doi.org/10.1177/1744987119880234>
- Flaubert, J. L., Le Menestrel, S., Williams, D. R., Wakefield, M. K. & National Academies of Sciences, Engineering, and Medicine. (2021). The role of nurses in improving health care access and quality. In *The future of nursing 2020-2030: Charting a path to achieve health equity*. National Academies Press (US).
- Forero, R., Nahidi, S., De Costa, J., Mohsin, M., Fitzgerald, G., & Gibson, N.,...& P. Aboagye-Sarfo (2018). Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine. *BMC Health Services Research*, 18(1), 1-11. <https://doi.org/10.1186/s12913-018-2915-2>
- Graling, P. R., & Sanchez, J. A. (2017). Learning and mindfulness: Improving perioperative patient safety. *AORN Journal*, 105(3), 317-321. <https://doi.org/10.1016/j.aorn.2017.01.006>
- Gurses, A. P., Kim, G., Martinez, E. A., Marsteller, J., Bauer, L., Lubomski, L. H., Pronovost, P. J., & Thompson, D. (2012). Identifying and categorising patient safety hazards in cardiovascular operating rooms using an interdisciplinary approach: a multisite study. *BMJ Quality & Safety*, 21(10) 810-818. <https://doi.org/10.1136/bmjqs-2011-000625>
- Gutierrez, L. D. S., Santos, J. L. G. D., Peiter, C. C., Menegon, F. H. A., Sebold, L. F., & Erdmann, A. L. (2018). Good practices for patient safety in the operating room: Nurses' recommendations. *Revista brasileira de enfermagem*, 71, 2775-2782. <https://doi.org/10.1590/0034-7167-2018-0449>
- Ingvarsdottir, E., & Halldorsdottir, S. (2018). Enhancing patient safety in the operating theatre: From the perspective of experienced operating theatre nurses. *Scandinavian Journal of Caring Sciences*, 32(2), 951-960. <https://doi.org/10.1111/scs.12532>
- Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*, 1986(30), 73-84. <https://doi.org/10.1002/ev.1427>
- Link, T. (2018). Guideline implementation: Team communication: 1.8 [www.aornjournal.org/content/cme](http://www.aornjournal.org/content/cme). *AORN Journal*, 108(2), 165-177. <https://doi.org/10.1002/aorn.12300>
- Malley, A., Kenner, C., Kim, T., & Blakeney, B. (2015). The role of the nurse and the preoperative assessment in patient transitions. *AORN Journal*, 102(2), 181-e1. <https://doi.org/10.1016/j.aorn.2015.06.004>
- McDowell, D. S., & McComb, S. A. (2014). Safety checklist briefings: A systematic review of the literature. *AORN Journal*, 99(1), 125-137. <https://doi.org/10.1016/j.aorn.2013.11.015>
- McGarry, J. R., Pope, C., & Green, S. M. (2018). Perioperative nursing: Maintaining momentum and staying safe. *Journal of Research in Nursing*, 23(8), 727-739. <https://doi.org/10.1177/1744987118808835>
- Merriam-Webster, D. (2018). America's Most-Trusted Online Dictionary; 2019. Available at: [www.merriam-webster.com/](http://www.merriam-webster.com/).
- Morgenegg, R., Heinze, F., Wieferich, K., Schiffer, R., Stueber, F., Luedi, M. M., & Doll, D. (2017). Discrepancies between planned and actual operating room turnaround times at a

- large rural hospital in Germany. *Sultan Qaboos University Medical Journal*, 17(4), e418. <https://doi.org/10.18295/squmj.2017.17.04.007>
- Murphy, V. A. (2018). The surgical technologist's perception of teamwork and the culture of safety in the operating room. Trident University International.
- Norman, V., Rossillo, K., & Skelton, K. (2016). Creating healing environments through the theory of caring. *AORN Journal*, 104(5), 401-409. <https://doi.org/10.1016/j.aorn.2016.09.006>
- Norton, E. K., Micheli, A. J., Gedney, J., & Felkerson, T. M. (2012). A nurse-led approach to developing and implementing a collaborative count policy. *AORN Journal*, 95(2), 222-227. <https://doi.org/10.1016/j.aorn.2011.11.009>
- Peate, I. (2015). The principles of surgical care: Intraoperative care. *British Journal of Healthcare Assistants*, 9(11), 534-537. <https://doi.org/10.12968/bjha.2015.9.11.534>