

## Operating Theater Technician Responsibilities with Nurses and Pharmacists Working together Preoperative: Review

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### Abstract

Through the years, pharmacy services have historically included dispensing, the supply of information regarding medications, and activities related to inventory management. The impact of pharmacists on the implementation of medication safety standards, drug therapy optimization, and other clinical interventions has been adequately reviewed in settings of general wards and is considered to be standard practice. On the other hand, these activities in the operating room have not yet gained the status of standard practice. Without exception, the general fundamental competences should be possessed by all healthcare professionals, regardless of the field in which they work. Some of the specific content that falls under these abilities varies from one discipline to another. The specialized operating theater nurse is the only healthcare practitioner who possesses the level of expertise necessary to be responsible for asepsis, instrumentation, infection and complications, control, and management of biological specimens while the surgical procedure is being performed. No other profession in the healthcare industry possesses the formal education, competence, or skills necessary to provide nursing care in the operating room during a surgical procedure. The only exception to this is the nursing profession that specializes in operating rooms. As a result, the competency of operating theatre nurses is absolutely necessary in order to guarantee the safety of patients during surgery.

**Keywords:** *operating rooms, inventory management, safety standards.*

## Introduction

A number of different approaches have been used to explain competence. One of these ways is that it is a combination of skills, talents, and attitudes that are required, as well as what a professional is able to do, and it is reflected in actions and behaviors that can be measured [1]. On the other hand, the idea of competence is difficult to pin down, and there is no consensus among experts over how to define it. A clinically relevant competency is not, by definition, comparable to the completion of an educational program; nonetheless, an educational examination is the sole measurement of competency that is generally utilized [2].

The number of professionals that make up a surgical team varies from country to country and from healthcare system to healthcare system among countries. In Sweden, the surgical team consists of nurse professionals who are skilled in their respective areas of specialty. These nurse professionals include an operating theatre (OT) nurse and a nurse anesthetist. [3] The additional circulating nurse duty is often carried out by a nursing assistant (NA) in the majority of care settings.

Without exception, the general fundamental competences should be possessed by all healthcare professionals, regardless of the field in which they work. Some of the specific content that falls under these abilities varies from one discipline to another. The specialized operating theater nurse is the only healthcare practitioner who possesses the level of expertise necessary to be responsible for asepsis, instrumentation, infection and complications, control, and management of biological specimens while the surgical procedure is being performed. In addition to nurses who work in operating rooms, there are also pharmacists who work in pharmacies and nurses who work in the wards where the patient will ultimately be located. These individuals have the knowledge and abilities necessary to provide nursing care in operating rooms while the surgical process is being performed. As a result, the competency of operating room nurses is absolutely necessary in order to guarantee the safety of patients during surgical procedures [4].

## Review:

In light of the fact that the patient is vulnerable, intraoperative practice is extremely difficult and complicated. When a patient arrives at the operating room (OR), the beginning of the intraoperative period begins. The intraoperative period concludes when the patient is transferred to the postoperative waiting room [5]. A significant amount of technology is utilized in the provision of care in the operating room, which is distinct from the care that is offered in other areas of the hospital. Surgical operating room nurses play a crucial part in the prevention of infections, the maintenance of asepsis, the handling of equipment, the implementation of medical techniques, the prevention of problems, and the handling of biological preparations. In addition, nurses play a crucial part in the process of planning treatment and working together with the patient, the surgical team, and other medical professionals [6].

One study asserts that errors are more likely to occur in operating rooms due to the fact that the staff members come from a variety of fields, have different educational systems, and work together in groups, which can lead to surgical confusions. Because of this, the number of mistakes that could have been avoided can be reduced when operating room staff are trained in patient safety, when clear systems are pursued in a step-by-step manner, and when control structures are developed and implemented. Additionally, effective communication between the operating room crew helps to reduce the number of surgical errors, and effective communication between the patient and the medical and nursing staff helps to increase the level of patient satisfaction [7].

In the operating room, ensuring patient safety involves preventing any and all medical and surgical errors that could have been avoided. This includes preventing errors including the inappropriate person, site, method, and foreign items that have been retained. Through systematic communication with the patient, the surgeon, and other members of the healthcare team, it is possible to avoid making these errors [8]. Furthermore, it is vital to correctly identify patients who are at risk of significant blood loss, complications with anesthetic or airway

closure, a history of allergic reactions, and the prevention of surgical site infection [9]. In addition, the errors could be avoided during the process of preparing the surgical environment, the instruments, the sutures, and the medications. In a similar vein, the safety of patients can be improved by properly scheduling procedures, communicating with other colleagues, assisting in ensuring that the surgical safety checklist is followed consistently, monitoring the progress of the surgeries, and reporting on the situation to the board [10].

Although there are several safety checks, there is still a possibility of errors occurring, which could result in unfavorable outcomes for surgery patients. Consequently, it is of the utmost importance that nurses have a thorough understanding of patient safety and take corrective actions in their capacity as advocates for patients. Additionally, additional studies suggest a variety of changes that can be made to enhance the safety of patients during the perioperative time. In addition, the International Council for Nurses (2013) says that every registered nurse has a moral and ethical obligation to speak up for the patient's best interests, demonstrate quietness and regard, ensure patient autonomy, and promote self-esteem [11]. Additionally, when it comes to professional nursing practice and the protection of patients, accountability of nurses is absolutely necessary.

A significant amount of information is provided to medical professionals and nurses regarding the utilization, dosage, stability, incompatibility, pharmacological effects, and side effects of the medication. The information regarding the medication that is delivered by the pharmacist in the operating room is necessary for the nurses and doctors. Furthermore, they have a very high demand for the stationing of pharmacists in their establishment. It has been hypothesized that these services could be extremely effective in maximizing the effectiveness of pharmacological therapy and minimizing the risk of unwanted effects. In addition, pharmacists have the ability to provide contributions regarding the rational utilization of drugs, the management of safety, the reduction of the workloads of other medical staff, and the medical economics through the provision of pharmaceutical care in operating

rooms as well as general wards. It has been claimed that the placement of pharmacists in the operating room might be an essential component of hospital administration due to the fact that it would reduce the risk of medication failure and the associated costs [12].

When it comes to systematic safety work, the essentials consist of identifying and reducing bad events in order to minimize patient suffering and injuries that could have been avoided. Patients who undergo surgery are subjected to a number of hazards throughout the procedure. These risks include the possibility of a surgical site infection as a result of a planned break in the integrity of the skin, as well as the possibility of physical injury as a result of surgical positioning, electricity, chemicals, and transfers. It was demonstrated that a considerable number of these surgical complications can be avoided. This was demonstrated when the surgical safety checklist developed by the World Health Organization (WHO) was applied. As a result, mortality was practically cut in half, and complications were significantly decreased. Sterility, availability of equipment, results of needle, sponge, and instrument count, and the handling of specimens are all things that the occupational therapy nurse is accountable for and verbally affirms [13]. Her responsibilities include the WHO checklist.

In a number of domains, the occupational therapy nurse possesses specialized knowledge and abilities, and as a result, she is entrusted with a unique set of responsibilities. Preventing infections at surgical sites after surgery is one issue that falls into this category. Through the creation of a safe and sterile working surface for the use of surgical tools and through the draping of the patient, the occupational therapy nurse ensures that the environment is hygienic and aseptic during the entirety of the operation. This creates a barrier between the wound and the bacteria that are in the surrounding area. Additionally, it is the responsibility of the occupational therapy nurse to manage the flow of traffic inside the occupational therapy department. The door openings that occur during surgical procedures have the ability to influence the air pressure within the operating room (OR). This can result in the introduction of contaminated air, which can lead to an unacceptable amount of bacteria-carrying particles in the air and potentially lead to

surgical site infections. During surgical procedures, it is normal practice to collect specimens with the purpose of confirming or obtaining further evidence to support the patient's diagnosis. It is the responsibility of the occupational therapy nurse to handle these specimens; if an error is made, it could put the potential of identifying the patient and planning additional medical treatment at risk [14].

Surgical counts are another area that falls within the purview of the occupational therapy nurse. It is a guarantee that surgical counts and qualitative assessments of the surgical instruments have been performed before the operation begins, during the procedure before wound closure, and after the operation to ensure that no material (retained foreign body) is accidentally left in the patient. The OT nurse's signature in the digital operation notes serves as a guarantee of this. One of the most important things to do is to prevent surgical components from becoming retained [15]. Without exception, the general fundamental competences should be possessed by all healthcare professionals, regardless of the field in which they work. On the other hand, the specific content that is included in these competences varies from discipline to discipline. The specialized occupational therapy nurse is the only healthcare worker who possesses the expertise to be responsible for asepsis, instrumentation, infection and complication control, and the management of biological specimens while the surgical operation is being performed [15].

### Conclusion:

Irrespective of whether or not there is a scarcity of occupational therapy nurses, hospitals are limited in their resources, surgical services are frequently focused on volume, and a high level of production is required in order to achieve cost-efficiency. When it comes to healthcare personnel who do not have access to the locked surgical suite, the competencies of occupational therapy nurses are, to a significant degree, unclear. Both the entire competency of occupational therapy nurses and the ways in which OT nursing affects patient safety in the OT are discussed in this argumentative study. It is possible that care managers will be prevented from delegating OT nursing activities to other healthcare professionals who lack the

appropriate experience, formal education, and abilities if they are provided with a description of the complicated nature and role of occupational therapy nursing. In addition, the formulation of the specialized occupational therapy nursing competence may also serve to strengthen and encourage occupational therapy nurses in their day-to-day clinical practice, as well as to preserve the continued growth of safe care. The current findings may be taken into consideration by the leaders of the operating room nurses as a reference for quality improvement programs in the hospital, particularly when taking into account the particular peculiarities of each local context. In spite of the fact that the participants believe that the setting is secure and that the level of care provided is of a high standard, there is still space for improvement in terms of workflows and procedures. The workflow in the operating room should be enhanced, particularly by addressing the potential concerns about patient safety.

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