

Highlighting the Vital Role of Skilled Anaesthetic Assistance in Healthcare

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Introduction

The requirement of skilled anaesthetic assistance is nothing new in healthcare. The professions of anesthesia technicians/technologists, Operating Department Practitioners (ODPs) and anaesthetic nurses or practitioners has evolved significantly over time. Initially rooted in the early use of various substances to mitigate pain during surgical procedures, skilled anaesthetic assistants emerged in the UK in the mid-20th century as dedicated professionals, specializing in anesthesia support. Their roles expanded to include a wide range of responsibilities, from equipment management to patient monitoring and assistance during anesthesia administration. Formal training and certification programs were established to ensure their competence in ensuring patient safety and maintaining a seamless operating room environment. Today, these professionals, regardless of their regional titles, continue to be indispensable members of the healthcare team, working closely with anesthesiologists, surgeons, and nurses to provide optimal patient care and uphold the standards of safety and efficiency in the operating room. Ongoing education and professional development remain key elements of their commitment to delivering high-quality care in the ever-advancing field of anesthesia and surgical medicine. This mixed-method study found that Operating Department Practitioners (ODPs) actively seek to enhance their skills, with 37% obtaining mentorship qualifications and 14% pursuing postgraduate degrees. The research highlights the evolving roles of ODPs, who exhibit a wide range of skills applicable in diverse clinical settings. Importantly, it suggests that ODPs can contribute to improving patient safety and service delivery beyond their traditional roles, indicating opportunities for professional growth within the profession [1]. In the UK, you can find ODPs practicing in intensive care units, emergency departments, critical care transport and even part of search and rescue teams. Here in the UAE, anaesthetic technicians and technologists have been a vital part of the theatre team for over 20 years. For the purpose of this discussion, we will be mainly focusing on anaesthetic technicians/technologists.

Discussion

Anaesthesia Technicians/Technologists are an integral part of the perioperative team in the UAE, and their responsibilities are crucial in maintaining patient well-being throughout surgical interventions. Here are some key aspects of their role that deserve recognition:

- **Equipment Management:** Anesthesia techs are responsible for inspecting, calibrating, and maintaining anesthesia equipment, such as anesthesia machines, patient monitors and a whole host of specialized equipment such as cardiac output monitoring and hi-flow nasal oxygen. Ensuring that these devices are in optimal condition is essential for patient safety during surgery.
- **Patient Preparation:** They assist in the preparation of patients before surgery, which includes having an essential role in the WHO surgical safety checklist. They help to position and secure the patient on the operating table, placing intravenous lines, and monitoring vital signs.
- **Medication Assistance:** Anesthesia technicians help prepare and administer medications, such as induction agents and muscle relaxants, under the direct supervision of an anaesthesiologist.
- **Patient Advocacy:** Anaesthetic Techs are present for a large part of the patient's surgical journey. The holistic growth of the anaesthetic tech Profession mean that they required to act as a patient advocate at all times [2].
- **Emergency Response:** During surgical procedures, these professionals are ready to assist with any emergencies that may arise, such as airway management or cardiopulmonary resuscitation, ensuring that the patient's safety is the top priority.
- **Sterile Techniques:** Anesthesia technicians are responsible for maintaining a sterile field in the operating room, ensuring that all equipment and supplies are properly sterilized, handled and disposed.
- **Point of Care Testing:** Anaesthesia Technicians also perform point-of-care testing (POCT), which involves performing various diagnostic tests at the bedside or within the OR to obtain rapid test results. These tests might include checking a patient's blood gas levels, glucose levels, coagulation status,

or other vital parameters to ensure patient safety during surgery. Here at Cleveland Clinic Abu Dhabi, their POCT efforts are a vital part of cardiac surgery outcome. However, the extent of POCT involvement may vary depending on the specific healthcare facility, regional regulations, and the individual training and competencies.

- **Blood Conservation:** Anesthesia technicians also manage the operation of cell saver machines during surgeries. These devices collect and process a patient's own blood lost during the procedure, allowing for its reinfusion, thereby contributing to blood conservation efforts. In addition to blood conservation and rapid infusion, this role ensures that the patient's own blood is efficiently recovered and returned during surgery, reducing the need for external blood transfusions and promoting patient safety.
- **Patient transportation:** Anesthesia technicians play a pivotal role in safely transferring patients between the OR, PACU and ICU. They monitor vital signs, communicate critical information, and ensure a smooth transition, contributing to patient safety and continuity of care during these critical handovers.
- **Education and Training:** Anesthesia technicians undergo extensive training and education to stay updated on the latest advances in anesthesia technology and patient care, contributing to improved outcomes in surgical procedures. Training shifted to higher education institutes in the early 2000s, offering diploma and undergraduate programs. Today, a diploma is the minimum requirement for professional registration, with degree education preferred. This reflects the growing importance of skilled anaesthetic assistance globally.
- **Professional Progression:** The professional progression for anesthesia techs has paved the way for numerous leadership opportunities, including roles such as team leaders, theatre managers and even clinical operations management or directorship. Furthermore, this career path has also served as a gateway to other professions, enabling transitions into fields such as perfusion, nursing, and medicine.

In recent years, the healthcare landscape has been characterized by rapid advancements in medical technology and an increasing demand for surgical procedures. Amidst these changes, anesthesia technicians and other skilled anaesthetic assistants have proven to be essential in ensuring the efficient and safe delivery of anesthesia services. That safe delivery of service requires exclusive use of a skilled anaesthetic assistant (1:1 model), with the physician and skilled assistant complementing each other's skills and knowledge. It cannot be carried out single-handedly [3].

Their dedication to maintaining the highest standards of patient care, their meticulous attention to detail, and their ability to adapt to new technologies make anesthesia technicians an indispensable part of modern healthcare. It is imperative that we acknowledge the role of skilled anaesthetic assistance globally and continue to support their professional development [4,5].

Conclusion

In conclusion, we urge the medical community and policymakers to recognize the significance of skilled anaesthetic assistance and to ensure that their contributions are duly acknowledged and rewarded. By doing so, we can continue to provide high-quality anesthesia care and improve patient outcomes in surgical settings.

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