

contributes to improved output, productivity, and outcomes. The International Council of Ophthalmology has launched an initiative² to examine skills exchange through a formal, planned framework and training programme. Non-nurses can also be taught to carry out tasks that may traditionally be considered nursing tasks.

Quality improvement

- Foster a continuous quality improvement approach to service provision; for example, by welcoming, conducting, and acting on internal or external audits and patient feedback surveys, as well as your own professional development.
- Keep up to date with your own professional development, and new developments in the field, by:
 - Updating your qualifications
 - Taking part in professional development activities
 - Keeping abreast of what is happening in the care sector, and/or an area of specialty that is directly related to your work, by participating in local continuing professional development opportunities
 - Reading journals and articles (such as in the *Community Eye Health Journal*)
 - Taking part in webinars (see www.iapb.org), or by taking an online course. There are many free or low-cost courses available online, including from the International Centre for Eye Health (icsh.ac.uk/oer/), Cybersight (cybersight.org/online-learning/), WHO (openwho.org/courses) and JCAHPO (eyecarece.jcahpo.org).
- Take responsibility for the conditions in your workplace; for example, by reporting malfunctions and hazards.
- Take responsibility for the resources in your workplace. Put the safe storage and use of equipment, instruments, and consumables at the forefront of your daily practice.
- Contribute to the Global Green and Healthy Hospitals scheme (www.greenhospitals.net); for example, by considering how your hospital can reduce the amount of waste it produces or by proposing an action plan to reduce your carbon emissions.

Building the eye care team

- Join, or build, a national or regional ophthalmic nursing special interest group/association.
- Welcome and encourage people into nursing, and then into the eye care subspecialty. Many countries need more ophthalmic nurses, so every nurse has a duty to promote the profession and welcome newcomers.
- Advocate for ophthalmic nurses to be included in the human resources framework and pay scales.
- Train nurses in departments such as endocrinology/diabetes care, or in geriatric care (care for older people).
- Foster collaborative, open and proactive relationships among all members of the eye care and/or hospital team. Team members may include ophthalmologists, optometrists, orthoptists, technicians, pathologists, and so on. The more we communicate, and the more we break down outdated and unhelpful barriers, the greater the likelihood that we will achieve the goal of universal health care for all.
- Help to grow the body of evidence needed to assist in the prevention and treatment of vision impairment and blindness by conducting research and by presenting and sharing your knowledge.

The importance of the perioperative nurse

Qualified nurses play an important role in the operation room before, during and after surgery.



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The perioperative nurse is an essential member of the team when operating on patients with eye-related conditions. Indeed, whenever I'm required to operate in remote locations, my core request – apart from a microscope and surgical instruments – is that I travel with a dedicated perioperative nurse.

Surgeons are the most visible members of the cluster of gowned figures gathered around operating tables all around the world. However, the surgeon is always a part of a surgical team and is supported by a number of other highly trained professionals, each with a clearly defined role and serving a vital function. In many parts of the world, qualified nurses play multiple roles in the operating room.

As an eye surgeon, I consider the nurse to be one of the most important people in the perioperative space – before, during, and after surgery. These nurses are known by various names in different places: scrub nurses, operating room (OR) nurses, circulating nurses, surgical technicians, theatre nurses/assistants, or operating room technicians. I will use the term perioperative nurse to encompass all these roles.

References

- 1 WHO. Nursing and midwifery fact sheet. February 2018. bit.ly/3neJSdB
- 2 International Council of Ophthalmology. ICO Position on Training Teams to Meet Public Needs. June 2018. bit.ly/2JQK8kA Accessed 24 October 2019.
- 3 World Health Organization. Surgical Safety Checklist. Revision 1, 2009. bit.ly/2JV0KY8 Accessed 24 October 2019.

Further Resources

- International Agency for the Prevention of Blindness: Environmental Sustainability Working Group home page. bit.ly/3qSajrq Accessed 24 October 2019.
- Machin H (ed). Ophthalmic Operating Theatre Practice: A manual for lower-resource settings, edition 2. *Community Eye Health Journal*, 2016. bit.ly/3niXDIE Accessed 24 October 2019.
- World Health Organization. World Report on Vision. October 2019. bit.ly/383de88 Accessed 24 October 2019.



The perioperative nurse helps an ophthalmologists to don his gloves. RWANDA

The key responsibility for the perioperative nurse is to maintain a sterile environment for the patient and surgical team before, during, and after surgery. Consequently, the nurse often has multiple responsibilities, especially where there are shortages of skilled health workers.

Before surgery

Before surgery, the perioperative nurse may be responsible for supervising the transport of patients to and from the theatre and wards. The nurse will also prepare the patient for the surgical procedure, i.e.:

- Checking the patient's records
- Checking vital signs
- Washing, shaving, and disinfecting surgical sites
- Ensuring that the correct eye is labelled.

Perioperative nurses arrive before the procedure to set up the room and check its condition in order to ensure a clean, safe and efficient environment for patients and surgeons. They ensure that adequate supplies are available and check for correct positioning: making sure the patient is well positioned on the table, that the surgeon's stool is adjusted to the correct height, and that the microscope and all of its viewing stems are working well. They need to be familiar with the correct operation of all equipment in the operating room, including phacoemulsification machines, vitrectomy machines, and lasers, if relevant. Perioperative nurses are also responsible for collecting, checking, and returning the equipment needed for each procedure. For example, before a retinal detachment operation starts, they must make sure that the cryotherapy cylinder contains enough liquid nitrogen, even though the surgeon may not use it. Similarly, during a cataract operation, they must check that all the correct lenses and viscoelastic options are available, just in case they are needed. Often, the perioperative nurse has to not only anticipate numerous complications that could be encountered during the procedure, but also the needs of multiple surgeons with different individual preferences and levels of skill.

During surgery

In the scrub role, a perioperative nurse will ensure all the gloves needed are available in the correct sizes. She or he will be the first to scrub in for a procedure and assist the remaining team members with gowning and gloving. During the operation, the perioperative nurse will hand the surgeon any necessary instruments, sponges, and other items, and provide retraction, suction, or irrigation of the eye as directed. In this role, the perioperative nurse requires a deep enough knowledge of the procedure to anticipate the surgeon's needs and have the correct items ready to hand over. This skill allows the surgeon to not break concentration and manage any complications optimally. For example, as soon as vitreous presents during a cataract procedure, the perioperative nurse prepares for vitrectomy, even before the surgeon asks. Often, experienced nurses will offer invaluable advice to novice surgeons such as, "Perhaps you should increase the incision size?" Such advice is always appreciated and emphasises the key role of the perioperative nurse within the operating theatre.

Within the operating room, the perioperative nurse may also work outside the sterile field (sometimes called the



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circulating nurse). Circulating nurses provide additional supplies and sterile instruments as needed during the operation and assist the other team members in monitoring the status of the patient or helping with the repositioning of the patient during the procedure.

The perioperative nurse assists during eye surgery. RWANDA

After surgery

After the operation, the surgeon often writes her or his notes and leaves the room. The perioperative nurse may then be responsible for monitoring the patient's condition and remaining alert for any indicators revealing a good or bad outcome. The nurse will often be responsible for giving the correct postoperative instructions to patients before they go home – something that can greatly impact outcomes.

In cases where general anaesthesia was used, such as in paediatric ophthalmology, nurses will continually evaluate the patients until they wake up and help them understand where they are and what is going on as they awaken from the anaesthesia. Other nursing interventions will include monitoring vital signs, airway patency, and neurologic status; managing pain; assessing the surgical site; assessing and maintaining fluid and electrolyte balance; and providing a thorough report of the patient's status to the surgeon and the patient's family.

Other duties

Many of the nurses who work in the operating room tend to be senior, very experienced nurses. As a result, they might also spend part of their time on training, supervisory or administrative duties.

As surgeons, we are sometimes unaware of all that goes on in order to make the surgical experience smooth for the patient and surgeon. Much of this rests in the hands of the perioperative nurse – individuals who not only work with precision but also have the ability to think on their feet, act on core scientific principles, adapt to ever-changing circumstances and take the initiative to do what is necessary and right in each surgical situation.

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