

10 Things You May Not Know About the Operating Room: Part 1

Heather L. Williams and Thomas J. Williams



Have you ever wondered about the function and operation of an Operating Room (OR)? Unless you are a sales representative that routinely sells into the Operating Room or are a health care worker working within the Operating Room, you may be unaware of what actually occurs within this very unique environment. Here is our Top 10 List of what patients, other hospital personnel, sales representatives that sell into other areas of the hospital and interested individuals may want to know about the surgical milieu.

In Part 1 of this blog we will share with you the Operating Room environment. In Part 2 (next week) we will discuss the Operating Room's function and operation.

1. Types of Operating Rooms

There are several types of operating rooms depending on the type of surgery being performed. There are General, Orthopedic, Neuro, Spine, Urology, and Cardiac/Thoracic.

The reason for having different types of operating rooms is that different procedures require different equipment and personnel. The staff must have access and enough room to move the equipment required for each type of surgery in and out.

For example, if a patient is having procedure done on their spine in the Spine OR, it is not uncommon for the surgeon to have a C-arm in the room to take an x-ray. If a patient is having open-heart surgery in a Cardiac/Thoracic OR, a Perfusionist

is in the room to run the heart-lung machine. If a patient is having a general procedure such as the removal of an appendix, they would be in a General OR, which is going to be much smaller in size than an orthopedic room where a patient would be having their hip or knee replaced.

2. Equipment in the Operating Room

A typical Operating Room has the following equipment:

- **Surgical table:** There are many different types of surgical tables available today. Each provides versatility, durability and ease-of-use for patient positioning.



The simplicity of design allows the user to provide 180 degree lateral patient rotation, horizontal slide movement for C-arm use or for variation in height, "Flex" positioning with a multitude of other surgical positions are controlled

electronically. Each table has a weight restriction and removable back and leg sections which allows for more position options. In addition, the surgical table comes with a safety strap that can be used on the patient's arms or legs to help prevent them from moving during the procedure.

- **Lights & booms:** New hospitals and older facilities, that have renovated their operating rooms, have added ceiling mounted equipment booms. Each boom has a series of arms that holds a variety of items such as surgical lights, flat panel monitors and equipment. They also house utilities such as power outlets, gas and oxygen. By being ceiling mounted, this minimizes the amount of equipment that is on the floor and must be moved during cleaning. It also allows for any item to be easily moved.



As an example, it is common for the flat panel monitors and surgical lights to be moved prior to a procedure to help the surgical team see better throughout the surgery. Additionally, during a laparoscopic case, the surgeon will be using a camera within the incision site and will be watching his actions on a flat panel monitor that is hanging from the ceiling mount. It is also common for the

anesthesiologist to have his own anesthesia boom, which eliminates the anesthesia cart from being on the floor.

- **Back tables:** Back tables are also a piece of equipment that is a staple in the operating room.



Covered in a blue cloth, this table holds all the instruments, sponges, sutures and devices that the surgeon will need during surgery.

3. Surgical Team

The surgical team consists of at least the following: the surgeon, circulating nurse, surgeon's assistant, anesthesiologist and the surgical tech.

- **Surgeon:** The surgeon is responsible for performing the surgical procedure.
- **Surgeons Assistant:** The surgeon's right hand during surgery. They are responsible for providing the surgeon with anything they may need. For example, handing them an instrument, holding an organ, or helping to close.
- **Circulating Nurse:** The individual that keeps track of time and gets the patient ready for the surgical team. For example, prepping the patient with a catheter. The nurse is also there should the surgical team need anything further to complete the surgery. For example: they call radiology to have a technician come into the OR to take an x-ray with a C-arm.
- **Surgical Tech:** The individual at the back table that is available to assist the surgeon and the surgeon's assistant with whatever needs they may have during the surgery.
- **Anesthesiologist:** The physician that puts the patient to sleep and watches their vital signs to ensure they are stable during the surgery.

Depending on the type of surgery that is occurring the surgical team can vary. For example, if it is an open-heart case, there will be a surgeon, surgeon's first assistant, scrub tech, circulating nurse, anesthesiologist and a Perfusionist who will run the heart-lung machine. For trauma cases, there may be several surgeons and nurses. Within teaching hospitals, several surgeons in training and other personnel may also be in the OR.

4. Music

It is quite normal for a surgeon to have music playing during surgery. The music is chosen by the surgeon. "The effect of music in the operating room is not fully understood."¹

In a review of the pertinent literature, Linos and Dinos found that “patients exhibited lower anxiety levels before and during surgery when hearing music and a significant reduction in analgesia and sedation requirements was observed. Music was found to reduce the heart rate, blood pressure, and muscle effort of surgeons while at the same time increasing the accuracy of surgical tasks.

Surgeons who played a musical instrument were found to perform surgical tasks faster. On the other hand, anesthesiologists reported that music is associated with difficulties communicating and offering a stable level of sedation. The most appropriate music in the operating room seems to be the classical type.”¹

From these findings, they concluded “music in the operating room can have beneficial effects on patients by decreasing stress, anxiety, and the demand for analgesic and anesthetic drugs. For the surgical staff, music is considered to be distracting. For the surgeon, music can increase the speed and accuracy of task performance.”¹

5. The temperature in the operating room

By AORN standards, the operating room temperature is normally kept between 68^o and 75^o.² This can vary depending on the type of surgery being performed. For example, during an open-heart procedure, the surgeon can request to have the temperature dropped down to 63^o. The reason it’s so cold is due to the surgical lights in the room. They provide a lot of heat over the surgical table. Because the surgeon is in a mask, gloves, hat and gown and may be performing a surgical procedure that takes several hours, they need to make sure they are not over heated. Patients are provided with a warm blanket to keep them warm.



Some surgeons will also wear a head-light to help increase their visibility on the site they are operating on. This is common in neurological cases and open heart procedures. These head-lights provide additional heat which is why the room will be at a lower temperature than AORN standards.

References

1. Moris DN and Linos D. Music meets surgery: two sides to the art of "healing". Surg Endosc 2013 Mar;27(3):719-23
2. AORN. 3 ways to make the OR an infection prevention ally. August 14. 2013

If you enjoyed this post, please share it with your social network and get free updates by subscribing at www.strategicdynamicsfirm.com or RSS and connect with us on:

Author: Heather L. Williams and Thomas J. Williams

- Blog: <http://strategicdynamicsfirm.com/blog/>
- LinkedIn- Heather Williams: <https://www.linkedin.com/in/heatherlwilliams24>
- LinkedIn- Tom Williams: www.linkedin.com/in/thomasjwilliams
- LinkedIn Publisher: <https://www.linkedin.com/today/author/8734131>
- Twitter: https://twitter.com/sd_firm

Photos courtesy of Google Images.

©Strategic Dynamics Inc. All Rights Reserved. 2015