C1L4 - Ashley Hay(1)

(0:05 - 0:29)

Welcome back. So, in this lesson, we looked at healthcare facility structure and environment. So, a few key takeaways from that are just kind of knowing the difference, right? So, what does structure look like? Things like layout and design elements versus environment, which might be overall surroundings, cleanliness, air quality, noise levels, things like that.

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And in some of the lesson objectives, as you've now gone through this module, you want to just kind of think about the principles of operating room design and the differences that you might see in different surgical operating suites, in different settings, different facilities, and then think about what might some common items be that you might find in a surgical suite? What could, how could they differ? Think about maybe the functions of different work areas in that surgical suite in particular. So, maybe a setup area versus a cleanup area. And then also considering some common ancillary services and describing their functions, right? So, things like housekeeping or, you know, delivery of certain surgical items.

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And then I also want you to be able to think about advantages and disadvantages of different types of surgical facilities and ambulatory ones in particular. So, ambulatory is basically another way of saying outpatient. And then you also want to be able to identify just different professionals in the perioperative space and what their roles might be.

And so, when we go back to thinking about, you know, operating room design, the environment, the surroundings, and also the structure, we want to think about why those different design elements exist, right? So, an operating room, it's designed to be able to create and establish certain zones to prevent the transmission of infection and different kinds of microorganisms that could be infectious. So, when we think about OR design, some of the main objectives that we want to be sure that we're aware of, one is infection control. Absolutely imperative.

So, we want to always think in any time that we're in the operating suite about physical separation between the surgical environment and any source of contamination. And then think about what sources of contamination or infection might be present that we want to prevent from getting into the OR suite. So, thinking about, you know, things like when we get deliveries of certain surgical instruments, how do they need to be prepared or maybe taken out of certain packages? Do they need to be sterilised? Kind of what is your hospital's policies and procedures there? Another objective of designing an OR is environmental safety.

So, there are certain standards that have to be met for things like electricity or gas, oxygen,

lighting, other kinds of utilities there. And then also, we want to consider one of the last objectives, which is efficient use of time and space. So, having certain resources or instruments available in certain areas, because we are kind of having different zones, if you will, within each OR setting.

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So, this is a great example of what we're talking about. So, if we think about kind of different areas and different rooms, we, you know, right now we're talking about within a specific operating room. But if we zoom out a little bit further, we'll see that maybe there's one general OR, then you have a sterile supply room in between, and then maybe a different OR below that.

And then if we zoom out even further, maybe you have a bigger setting where maybe you have several ORs with sterile supply in between. And then, of course, you know, there's this restricted area. So, that way, you know, not every staff member or what have you, anyone, is able to kind of walk in and out.

So, you know, continuing to scroll out here and zoom out, then we see things like, you know, scrub attire, the staff lounge, locker rooms for people to get changed, laundry for clean scrubs to be available for the OR. We see that there's equipment rooms, then there's sterile processing, there's a clean side and a dirty side. We have equipment supply and storage.

And then zooming out even further, we have to also consider design for things like the public lobby and outpatient waiting rooms. We have, you know, areas of surgical offices where patients can see their doctors either prior to or following up weeks later after their surgery. We have nursing stations, we have a prep area, a holding area where we can maybe do some recovery.

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And then we also have scanning capabilities, too, in the radiology areas. So, there's a lot of things to consider. And we have to also keep in mind, you know, the movement of people.

So, not only patients and caregivers and how we would move them or have them move throughout the facility, but then also how is each staff member, you know, kind of moving through each area and just considering if it's efficient or not. So, those are really things that you want to consider when we're talking about, you know, different kinds of setups for an OR design. And then, of course, we do also want to consider some basic operating room equipment, perhaps even furniture that's in that area.

One thing that I would definitely make sure that you know the difference of, more so for your professional awareness, although it is possible that these could end up on your exam as well, is to know the difference of the different types of stands or tables that may be used because you will use these quite frequently. So, a Mayo stand, for example, is one that, as a nurse, I'm quite familiar with. These are frequently at every patient's bedside.

And it's primarily used, especially in outpatient, for setting up any sort of equipment that we may use. So, for myself as a nurse, it's frequently for dispensing medication, maybe setting up for an IV insertion, maybe setting up some kind of fluids, or for a particular procedure. So, it's basically a stand that can be adjusted in height.

It's traditionally metal with a, you know, kind of a tray and a plate that sits on the inside. And then, it's typically used for like a working area, an overpatient working area. But then, there are other kinds of stands, like ring stands or prep stands that are used more for, you know, surgical prep.

There's things like a back table or a kick bucket. A kick bucket is typically used for like collection of dirty or saturated sponges that might be used in the OR. So, just kind of knowing the difference in those types of furniture.

And also, we want to consider, too, just, you know, how to use the operating tables, right? Because there may be two different kinds. One is more kind of like a bed, so the patient can lay on this during surgery. It can come in several types of types.

It has different sort of weight limits, too, which is important to be aware of when you're preparing for surgical cases. And then, they're designed for specific types of access to maybe difficult to reach surgical sites. And then, there's a standard OR table, which is pretty universal, which is, you know, mostly used for the supine position.

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And hopefully, you know what that is. If you don't, please be sure to look it up in your e-book. Supine position is used quite frequently.

So, yeah, just knowing kind of different kinds of operating tables that are available to you for use are helpful. There's also different kinds of boards or tables, for example, that can be used, again, you know, for different kinds of surgical sites. So, this, for example, is called the diving board, and obviously, because it somewhat looks like that.

And it is adjustable in height. That's what you're seeing kind of in the middle here. This is traditionally used for surgery on the lower extremities, so on the legs and below.

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There's orthopaedic kind of different kinds of fracture tables, something perhaps like this. It almost kind of looks like two skis with, like, attachments. So, those are, you know, used for orthopaedic cases.

And then, there's also a Jackson bed as well, which can be used for all-around access, really. But just knowing what different types of tables are available to you is really important in setting up your cases. And let's see.

What else is important in this module for you? Also, you know, we talked about the design of the OR suites and how certain standards for, like, airflow, ventilation, gas, and oxygen, and other types of OR utilities are kind of designed and structured. But it's also really important that you know what types of different utilities can be used and what may be needed for the case. So, for example, if gas is to be used, knowing that there are different types of compressed gas, you know, as additions to kind of anaesthesia, knowing where your power sources are for all different kinds of devices, maybe breathing devices, or maybe IV pumps.

So, just knowing where your electrical outlets are and what should be used for each. And then, of course, knowing about airflow and ventilation. So, if there's any issue with airborne particles, whether it's maybe from the patient or from the surgery that we're going to be doing, we need to be able to determine how to turn on things like positive pressure airflow.

So, when we turn that on, you will see that the air, it pushes the old air out of the room. And then, clean air is brought in above the patient so that there's a constant air exchange. And then, lastly, I would just make sure that you're really well-versed with your healthcare facility departments and what their individual functions are.

So, you know, we tend to get hyper-focused and just think about the unit that we work on. But in reality, we're kind of working together on patient cases with a number of outside departments. So, we're sending tissue samples to pathology.

We're sending patients to radiology for different imaging. We are discussing patient cases with infection control in their department. We have biomedical engineering that we sometimes need to consult with.

There's materials management and central supply. Often, we need to work together with pharmacy and the laboratory. Blood bank also we frequently work with.

There's a medical records team. There's environmental services and facilities maintenance. Security is sometimes needed as well.

Nutritional services, if there's questions with that. So, yeah, just really knowing what departments are available to you and what their functions are and knowing how you can, you know, improve patient care by interacting with them is always really helpful as well. All right.

Otherwise, I would say make sure that you're aware of different kinds of hazards. So, the differences between physical, biological, and chemical hazards. And make sure that you're kind of checking those out in your ebook.

And otherwise, yeah, I would just make sure that, you know, you've watched all those videos in this particular lesson as well. And know your different perioperative professionals. So, we talked about that as one of our objectives for this particular lesson.

So, knowing kind of who's on the surgical team. Examples of that might be, you know, your

registered nurse, surgical professionals. So, a fellow or a resident, maybe even a nurse practitioner or a physician's assistant.

And then always, you know, the surgeon, which is the attending surgeon or the primary surgeon. And then there's a circulator also, which is typically a registered nurse. So, knowing who's on that surgical team versus who else is in the OR, right? The anaesthesia team.

So, you have the head anesthesiologist, the attending. And then you also can have different anaesthesia staff, fellows, residents, a CRNA, which is a certified registered nurse anaesthetist. And then there's OR support personnel as well.

So, things like anaesthesia techs, OR assistants, maybe a nursing assistant or a patient care tech. And then OR educators and different types of schedulers and environmental services. So, really, it's just being aware of, you know, like we talked about earlier, of looking at your department and its design and who's included.

And then kind of zooming out and seeing the bigger picture. So, that's really kind of the biggest takeaway from this lesson. All right.

I hope you found that helpful, and I'll see you soon.