C4L19 - Ashley Hay

(0:05 - 0:11)

Hi, welcome back. We are still in course four. We're going to move on to lesson 19 here.

(0:11 - 1:56)

So continuing with surgical skills, this will be more during surgery and then immediate post-op period. So we started the lesson covering Halstead, who was a pioneer in surgery and introduced a lot of the aseptic techniques that we still use today. He also prepared and I guess gave a method for effective wound and tissue management.

And some of his principles were handling of tissue, controlling bleeding, minimising tissue tension, things like that. And we still use many of these principles today. So I would make sure that you're very familiar with those.

And then we talked a little bit more about responsibilities of a surge tech and just kind of what you'll be expected to be doing during surgery. So, you know, placing sponges on incision sites, passing instruments like scalpels to the surgeon, retractors to the incision, so we can pull the skin back and see what we need to see. There's also needle counts and sponge counts, things like that, that you'll participate in with the circulator.

And then, yeah, we've talked a lot in prior lessons about maintaining and setting up sterile fields, always notifying somebody when the sterile field or technique has been broken, either by yourself or by someone else, very often accidentally. But either way, you know, the patient has to come first. So even if you have made a very big mistake, you need to speak up right away and everything needs to stop so we can, you know, fix the issue.

(1:57 - 2:22)

We also talked about obtaining things like grafts or implants from wherever you need to obtain them from as required throughout the surgery. And sometimes those are much longer surgeries. So also speaking, you know, to whoever your preceptor is, your head nurse, you know, as to, or even the surgeon, when they want those present in the operating room.

(2:24 - 7:02)

And then we talk a lot about maintaining sterility, but we have gone through that a number of times already. So I think maybe that will show you guys how important that is to know and make sure that you're reading your ebook and have a really good grasp on that concept, because it keeps coming up for a reason. We talked about haemostasis.

And if you're not familiar with that is definitely be familiar with that term. Make sure that you're making some index cards for yourself. It's very important to prevent infection.

It helps facilitate healing and allow the body to heal itself and prevents a haematoma from forming. And we looked at exactly what a haematoma is. So it's kind of when all these different blood clotting factors like fibrin and tissue and things like that, that start with platelets, they form kind of this tiny little mass of tissue that can be felt.

So it's basically just a collection of blood cells, but we want to try and prevent haematomas whenever possible. So remembering that haemostasis is really the natural way to control bleeding. And that's what we were talking about with all those kind of clotting factors that start with the platelets, kind of going to a tissue injury and adhering and making kind of like a sticky substance to clot.

But we sometimes need to help the body do that, especially during surgery, because we are creating much bigger open wounds. So when we need to help the body clot, and we can use things like direct pressure, so pressure with large pads using kind of compression. We can use some clamps that will kind of shut off some of the vessels during that time or tissue to kind of stop or even just slow the bleeding.

There are different types of coagulation using either vibration or electrical currents to try and clot the tissue or burn the tissue. And then we also have some medications that can enhance clotting as well. Some of those examples of drugs we talked about a little bit, epinephrine, thrombin, fibrin glue, silver nitrate.

I know personally, I have used all of these. And so they are definitely important to know a few pretty good examples, especially for your exam. Then we talk about replacing blood loss.

Sometimes, you know, we cannot control the amount of bleeding, or even if it is somewhat controlled, we do still need to replace a certain amount of blood volume that has been lost. And we can replace different types. So we are able to give whole blood, which has all of the components in it.

We are able to give plasma, which is, you know, just a certain portion of the blood. Same idea with red cells or just platelets. So we can replace things that are, certain things are missing.

So if, for example, a patient were to really have a low platelet count, we're not going to replace them with whole blood. We would only give them platelets. So just kind of knowing what your available options are.

And again, you know, this would typically be given by a provider who's authorised and trained to do so. But just being aware of, you know, kind of what's being given to your patient, why, and, you know, ways to monitor for any sort of adverse reactions. So, you know, if you start seeing any sort of rash, you should alert another provider that's in the room.

Any sort of difficulty breathing, swelling of the face or hands, because those can be reactions to blood products. And then we talked about the different blood types and antibodies. Not every blood type can be given to every recipient.

So there are donors, that's who gives the blood, and then there are recipients, that's your patient that's receiving the blood. And it's important to know that they, the two types have to be matched. So we did give a nice little donors and receivers chart for you.

(7:03 - 9:29)

I think that those are pretty helpful just to kind of quickly review. And then just a few quick tips for you just to kind of keep track of and know off the top of your head, that there are certain universal donors, and that type is O negative. So O negative is considered a universal blood donor.

And what this means is that it is compatible, so it can be given to anyone who has a type A, B, O positive, or AB as well. So O negative blood type can receive any O negative blood. So it's important to know that while they are a universal donor, they cannot always receive anything else.

So O negative can only receive O negative. We also talk a little bit about recommendations for specimen handling. Very important to make sure that we are properly labelling and handling all specimens, so that way there's no contamination.

There's also no confusion between whose specimen this is or when or where it was obtained. So it's important to properly mark the specimen, identifying and labelling who the patient is, what site we got it from, time and date, and then not passing off the specimen until the surgeon approves, making sure that you're not wrapping the specimen or contaminating it in any way, and making sure that you're not discarding any tissue, because often we need all the tissue we can get to run the proper laboratory tests on them. So examples of some specimen types, especially during surgery.

Outside of surgery, we talk about things like obtaining urine or obtaining blood. But during surgery, we often are seeing more tissue biopsies or aspirations. And we also see certain, you know, we can get cultures while we're in there.

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We can take a biopsy of muscle. We can, you know, send off cord blood or placenta, different medical devices even, especially if they're infected, an amputated limb, maybe a knee stone. So really, you know, anything pretty much removed from the body, we want to make sure that we're labelling, because it's very highly likely that it will be sent off.

(9:59 - 10:44)

We talked a little bit about sutures and different types and, you know, kind of the fact that they may, for example, like a silk versus a steel suture. Obviously, you know, those are two very different types. And it will just depend on, one, the surgeon's preference, but also kind of what surgery is being performed.

So you'll kind of figure those out as you get some hands-on experience. And other than that, we talked about some suture handling techniques. You know, again, just important to be aware of, you will not be suturing, but you will be assisting.

(10:44 - 11:34)

So it's important to be aware of that procedure. We also gave a great video. So if you haven't watched that yet, please do so.

And then we also talked about different types of classifications of wounds. You know, class one is clean all the way down to class four, which is dirty or infected. We talked about differences in certain terms, like a bruise is known as a contusion, a scrape is an abrasion, cut is a laceration, and so on.

So, you know, those are some great note cards for you guys to start making. We talked about some wound drainage. So either things like Penrose drains, which are a little more passive versus suction, which are a little more active because they're pulling fluid using negative pressure.

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And there's some good examples in your ebook, as well as we gave a nice video there too. So make sure that you're checking that. We talked about different types of dressings, flat versus rolled versus gauze, and, you know, kind of why we use different ones of those.

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Definitely make sure that you're aware of that. As well as phases of healing. This is something I would expect to see at least one question on for your exam.

So for the phases of healing, we start with the inflammatory phase, the proliferative phase, and then remodelling, and kind of knowing what happens in those. So in remodelling, that's more when, you know, at the very end, when we start to kind of see the epidermis, the skin start healing up. And, you know, there's a lot of different conditions that can affect those wound healing phases.

One, if there is a defect in the immune system, or perhaps they're immune compromised by a certain medication. Chronic disease can affect it as well, and the medications associated with that. And then just overall cleanliness and health and hygiene.

Okay, so make sure that you're checking out chapter 19 from your ebook, and I will see you next time.