Appendix F - Interviews

16/09/2021

Dr. Stephen Gwer

Dr: We inject 20cc, 10cc is for 2%. Because sometimes you want more volume.We make it into 1% and we get 20ccS of 1%.

A: And the syringe that is used for this injection procedure is the 10cc syringe?

Dr: If we are using our Chloe syringe extension device, you'll have to use the 10cc. But if you are using spinal needle or other types of needles, you have to use the 10cc or 20c syringe. For our protocol and for the Chloe syringe extension device, we want the 10cc.

When you use the 10cc syringe, you inject 10cc and then you take it out, you fill it again with 10cc and then inject a second time.

Dr: That's correct.

Are there any difference in the type of needles that I used for this?

Dr: The most important part of the needle is this green part. This part that eventually fits into the syringe. But then there are different sizes and types of needles, but all of them can fit in the whole range of syringes. So like this needle can also fit in a 20, it can fit in a 2cc and also the other sizes of needles can similarly fit in the various syringes.

Is there a difference in the dimension between the 10cc syringe and the 20cc syringe syringe, as in, is the width or diameter of the syringe thicker?

Dr: Yes. The syringe varies in diameter and length.

Dr: Okay. So the, the 20cc will be of different dimension from the 20cc. We also have 2cc range, 5cc range and 60cc series. Some of them even have a nozzle instead of, uh, a place for the, for the needle.

And are these syringes are they all single-use syringes freshly bought from the store or is it reprocessed? Are some of them reprocessed before use?

Dr: For the purposes of, uh, paracervical block, they are single use. Okay. Use it on one patient you discard. Okay. So it's just from it's all fresh store-bought syringes. You open it, you use it, you discard it.

And what is the cost of the 10cc versus the 20cc syringe?

Dr: Well, um, I, I have never looked at, uh, the exact cost. But the 20cc syringe will be very slightly more expensive than the 10cc range. And I don't think the will be more than, uh, 10 Kenya shillings.

It's pretty cheap and affordable then would you say?

Dr: Yes. It's would be cheap and affordable.

What is the procedure for Paracervical block.

Dr: It's not much different from what you see in the video. The idea is once you insert the speculum. The upper end of, uh, where the speculum means is where the cervix will be. So the length of the speculum is a rough idea as of the average length of the vagina canal.

Dr: So when you get to the cervix, you will clean it with an antiseptic. And then usually you'd have to grasp the cervix to stabilize it with an instrument that we call a tenaculum. The point that the tenaculum is going to, to pinch. You first put a little of the anesthetic, like maybe 2ccs, then you pinch it with the pinch and stabilize the cervix. Now, if you'll assume that the cervix is circular and it's a clock, there will be two o'clock, three o'clock, four o'clock, five o'clock, and six o'clock.

Dr: So you're going to give your injections away from three o'clock and away from nine o'clock. So you can give it at 10 o'clock and you can give it at eight o'clock. You can give it at four o'clock and give it at two o'clock. So to each of those areas, you'll infiltrate on average, close to 4.5ccs.

Dr: And at the point where you tenaculum, maybe you put 2ccS so that you want to work with an average of not giving the patient more than 10 ml or 2%. And then you do not inject at three o'clock and nine o'clock. You inject everywhere around it in four points around it. 4.5 millimetres.

Dr: One thing that I wanted to point out is that you don't inject at nine o'clock and three o'clock. Cause there is where you have vessels and you don't go into the, or, and in the points where you are injecting, you don't want to go too deep into the muscle of the cervix. We just want to go under what, for the purposes of this talk, I will call the skin of the cervix, just the surface. So that's where you'll get the nerves.

Dr: And if it is too difficult to inject, you are probably in the muscle.

According to the documents, it said roughly three centimetres. Would you agree with that number or do you think it's something different?

Dr: This needle is almost four centimetres, so three centimetres will be too deep in my opinion.

So you would say roughly two centimetres.

Dr: Yeah. I think that would be under two centimetres

How comfortable is it to find the point of injection? Is it easy to find or is it, uh, different? Is there a lot of variation?
Dr: Women are different. They all come in different sizes and the cervixes may be different. So sometimes it'll be a little bit difficult to the point where you want to inject. Cause you also want to inject close to where the vagina is getting to the cervix, the junction between the vagina and the cervix. And so if maybe the, the vaginal walls are collapsing into the vaginal cavity that you've opened with the speculum. You might get a little difficulty, but by and large, most of the time it'll be easy to inject the paracervical block.

And how is it ensured that it's not in a blood vessel?

Dr: So once you inject. Before you, once you put in your needle before you inject the drug, you try and aspirate. So you try to, to pull back if nothing comes back, then you're not in a blood vessel. If blood comes back, then you're in a blood vessel.

In that case, you have to remove and restart?

Dr: Yeah. If you're in a blood vessel, you'd have to, to look for another point to inject.

And how easy it is to move around?

Dr: It's not difficult to, to find the points, but like I say, some women, especially if they obese and, uh, maybe they have, um, for lack of a better word, the, the vaginal walls are flabby. So they're collapsing and occluding, and your speculum is small. You may have a little difficulty, but remember that you are holding the cervix with the tenaculum. So you can be able to manipulate, can be able to move it so that you get to the point that you wanna inject.

Dr: Let me, let me bring something to, to demonstrate.

Dr: Now you can see this. Yeah. This is the normal toilet paper. But you can see my hand through it. Inside here. Assume that is the service where my hand is. Now you have the syringe needle. And you want to inject inside there. You see, so this, this is too short. It means you are getting your hand into the vagina. Can you see? So if you try and put that into the vagina, you can see then you, your hand will be at the end of the speculum.

Dr: Okay. So you'll not be able to see the cervix. If your hand is there. That is one and the needle will not be able to reach the cervix. But if you have a syringe extender you see now yeah, there is good length. It's actually popping out on the other side. Yeah. And, and this could

be the standard length of, uh, the vagina with the speculum inside. You are holding this, that, that is the tenaculum. Yeah.

Dr: So you can assume you are biting here (with the tenaculum), then you are injecting on the edges. If, if this were the cervix, you hold it, then you move it that way and you inject. That is, will be 11 o'clock .

So your syringe and the needle, both of them are disposed of?

Dr: Yes, the needle and the syringe, is thrown away. But the syringe extender should be reusable.

When you are filling in the syringe with the lidocaine how are you filling it?

Dr: So this is lidocaine. I can inject. You see? Then I can fill it in. Can you see the needle can coming in? And I remove it. So you use these two fingers and you pull it with one hand is how look at what I've done. You, you, either way you can use, but me I've used one hand.

Dr: You can be holding the tenaculum with the other hand, but if you have an assistant, they could hold this for you and you use both hands. Okay. But most of the time during drug administration, you will be alone, you can imagine nurses don't work in pairs. It's a very skillful thing.

Dr: The next step is to inject it at once. So you, you have it with the lidocaine. You are holding the cervix with your tenaculum. So the left hand is holding the tenaculum and pulling the cervix towards you, then you inject it. The tenaculum is also inside.

Dr: And then once you're done injecting, you remove the syringe from inside the cervix, remove the tenaculum and you dispose of the syringe?

Dr: No, you don't remove the tenaculum. The tenaculum will stay. Cause, um, cause if you are doing an MVA, you will use it to stabilize the cervix during the MVA. So the tenaculum you'll remove at the end of your procedure.

What is the wait time between the injection and using the tenaculum?

Dr: Well, um, for us, we don't wait. We don't wait cause the other recommendation is to wait for at least a minute. We, I have realized that, uh, the local and aesthetic works almost immediately.

Is that by habit or is there any other reason for it or is that just what everyone is used to?

Dr: Um, for me also, you know, having the woman in that position for a long time is uncomfortable for her. And I know, for a fact that once you've injected the lidocaine the time it takes you to put the tenaculum, the lidocaine will already check an effect. The recommendation

is to wait for five minutes. Though, my observation and my practice are that most of the time lidocaine has already taken an effect. You can start almost immediately. But also recall that, uh, sometimes after you've injected the lidocaine and now you are assembling your MVA kit. So when you'll be assembling the kit, the lidocaine is also taking effect.

How much time does it take for injecting in the four points, finding and injecting?

Dr: Well, I have never measured the time, but between 5 to 10 minutes. Okay. So it takes like two and a half minutes to find a point and inject 4.5 millimetres. If you're doing 20ml roughly that, that will be a good estimate.

So that's, uh, 2.5 minutes, four times you will have 10 minutes. So this time involves, uh, checking if it's a blood vessel and aspirating and then moving again and finding that injecting itself.

What part of the procedure will take the most amount of time?

Dr: I think the injecting, and the giving of the drug will take time. But most of them, you, you could imagine doing this. There could be a little resistance. Okay.

So if you're injecting, let's say four and a half ml, you'll have to inject it slowly as well. Is that, does it have to be slow or is it done?

Dr: No, no. It's uh, there is no, there is no recommendation on whether to inject slowly or quickly, especially cause you're injecting it. You're not injecting it into a vein. If you are giving a drug into the muscle or under the skin, then, uh, I mean, for the patient's comfort the quicker you do it, the better.

Is it painful when the para circle block is injected?

Dr: I want to point out that, uh, sometimes these patients already have the pain of the miscarriage they're undergoing. So they already come with some degree of pain then. The first injection of the para block would be painful for some women, uh, for many women inserting a speculum.

Dr: Inserting a speculum and opening it up and positioning it so that you can, uh, see the cervix is, um, uncomfortable and, uh, for service it's even painful. Okay.

So the speculum in itself is more, generally more uncomfortable and painful than the Para block?

Dr: Not necessarily, not necessarily. Everyone is different. You see now the para block is, uh, you already giving an anesthetic, as soon as you withdraw the needle's taking care of the pain.

So the discomfort of the speculum, especially in women, who've not had a vaginal bath may be exaggerated cause you have not anesthetized the vagina.

And how exactly is the size of the vaginal speculum decided?

Dr: Well, um, unless you have a. A very young person, most women will do with a medium size, uh, speculum. Most of the time we just use a medium size speculum. Rarely do we find the need to go for a large speculum.

How many functional autoclaves are available in the hospital?

Dr: I, uh, I'm not exactly sure. But I, I, you know, autoclaves come in different sizes and, uh, and different types. So the ones that I know the big, the big ones that do autoclaving for many instruments for most of the operations in the theatre could be two.

When you used one of the previous iterations, and tested the Chloe SED that you have right now with the syringe. Uh, when you were filling in the Lidocaine solution, did you prefer it with the Chloe CD or just the syringe itself?

Dr: Um, if, uh, if you have the syringe is already withdrawn, Inserting the Chloe SED becomes a little bit more difficult for me. It's a little bit more difficult. Okay. I would rather, I, uh, I rather, I inserted the, before withdrawing the lidocaine.

Dr: And, uh, remember, I, I also don't want to torture myself and, uh, I, I will have to withdraw again, but just start of habit. I find that, uh, Once I have mounted the syringe, it becomes easier to use,

Dr: Right after you've injected the. Injected the para block and currently without the SED uh, after you've injected the para block, uh, you remove the injection and you place it on a table for disposal, or what happens at that point to the syringe?

Dr: And you can, um, you can put it there, cause there is sometimes a possibility that, uh, you want to give additional, additional, uh, medicine

My question, what I'm coming to is if the SED was attached here and right after you've injected it, will you keep it on the same spot or will you prefer to remove it before placing it?

Dr: No, I will. Um, if, if I've attached the SED at the beginning of the procedure, I have injected the paracervical block. So at that time, I'll prefer to keep it like this until I have finished the procedure. So I'll disassemble it at the end of the procedure.

Dr: And at that point, the SED will go into a separate box for reprocessing and the syringe will go into a separate box for disposal. So the syringe will be disposed into, um, a sharp container

or something like that. Okay. And the SED will go for decontamination. Okay. So it's, it'll be into, uh, a solution that has bleach or, uh, 0.5% Chlor.

Dr: For some time before it's processed. Okay. Is this solution available to you, uh, at the workspace or is it yes, it is right there in the, it is right there in the procedure room. Okay. So once the procedure is complete, you will disassemble the Chlo and drop it, in the chlorine solution.

And a couple more questions about the syringe, once the procedure is done and you're disposing of, do you cover it back or do you drop it without the cover?

Dr: Well, the recommendation is that you do not try to cover it, you limit the manipulation of the, of the needle. So that you avoid the risk of pricking yourself. But when you are, uh, doing long procedures and there is the possibility that you may need to use it again, you can recap. So if at the time of disposal, if at the time we are going to dispose of, it's already capped, dispose of it. At the time of disposal, it's uncapped you discard it and uncapped.

Thank you very much for today's meeting.

Dr: You are welcome.

Email interviews

23/09/2021

Ms. Rachel Okune - Pricing for components of cleaning and sterilization

“Welcome

And these are the prices of the above items

1. autoclave tape 1pc @ ksh.300
2. distilled water 20litres @ ksh.656
3. a tin of 2.5g presept tabs @ksh 2610
4. chemical used in chemical sterilization is mostly 2% glutaraldehyde solution(steranios)
5. the ratio of the above chemical is as intsructed by the manufacturer
6. Dr Gwer kindly expound on the cost of the chemical sterilization

Thanks

Rachel
“

24/09/2021

Ms. Rachel Okune - Chlorine solution prep and Chemical sterilization

“HOW TO PREPAIRE CHLORINE SOLUTION USING PRECEPT TABLETS

-Put one tablet of 2.5 g of the precept tablets in 10 liters of water for stainless instruments.
-Put 2.5 g precept tablet in 10 liters of water for decontaminating soiled linen.

INSTRUMENT AND LINEN PROCCESSING

- Before carrying out any procedure in the theater after surgery, you have to put on gloves. This is to avoid direct contact with blood contaminated equipment while putting the instrument and linen in the respective solution carry the buckets to the sluice room.

- Confirm the period of contamination is over 10-15 minutes before removing the instrument and linen.
- Put on the heavy-duty gloves while removing them in the chlorine solution.
- Put in into clean water to prevent corrosion and to remove visible organic material.
-Then put into soapy water, scrub using a brush (for instrument) then rinse in clean water thoroughly.
- Air before parking.

PROTOCOL OF PREPARATON OF THE SYRINGE EXTENSION DEVICE AND THE CONTAINERS AFTER USE

1.Soak the syringe extension devices and containers in 0.5% chlorine (as has been prepared by precept) solution for 10 minutes.

2.Wash the devices and containers with soap and water taking care to remove all visible dirt, including the crevices with a brush till it is visibly clean.

3.Rinse them in clean tap water.

4.Wipe them with clean cloth until completely dry . They may also be air dried on a rack.

5.Dip the devices and containers in 2% glutaraldehyde(Steranios), ensure they are fully submerged, note the time and leave them submerged with the container covered for at least 10 hours. Usually, overnight.

6.Using sterile gloves, remove the devices and containers from the 2% glutaraldehyde solution and rinse with autoclave water(the water should not be more than 24 hours after sterilization) and dry with a sterile green towel or cloth.

7.Using aseptic technique, place the 2 complete devices in each small container, and close it tightly. Place the small containers inside the large container.

8.Note the following:-

a. The 2% glutaraldehyde solution is potent for 30 days(unless specified otherwise by manufacturer) and should be changed every 30 days. Care should be taken to ensure only dry devices and containers are placed in it to prevent dilution.

Requiring the autoclave, it can be used as many times as possible

Regarding chemical sterilization, at the moment I don't have the bottle can Stephen Gwer help if possible ?

Thank you
Rachel
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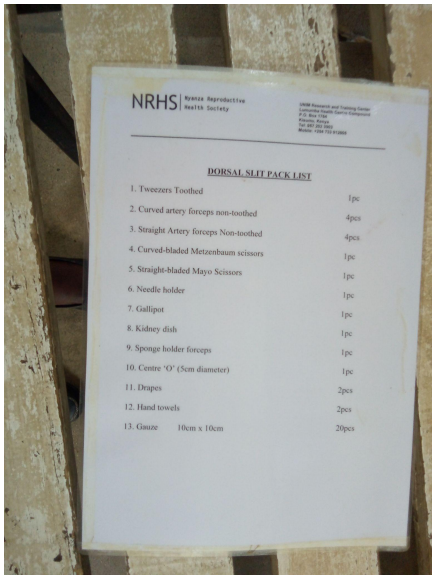
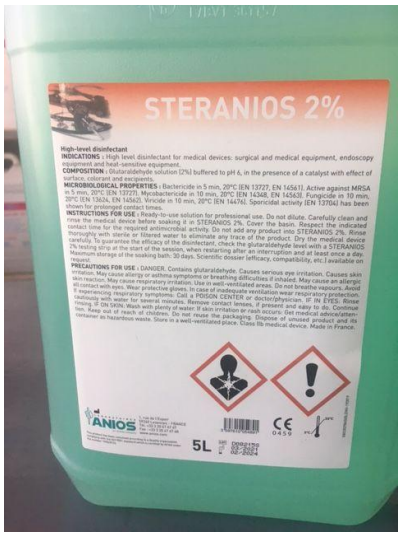
06/10/2021

Ms. Rachel Okune - List of items that are sterilized, and chemical sterilization bucket



14/10/2021

Dr. Stephen - Pricing for glutaraldehyde (and ratio) and needles



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Please find attached pictures of a 5L container of 2% Glutaraldehyde in the Kenyan market. Steranios sells in Kisumu for KShs. 3800/- for the 5L jerrican. It is instructive to know that there are various brands in the market with varying costs. The original Cidex is hard to come by, other chemicals used are chlorine (bleach) solutions 5%, and Ortho-Phthalaldehyde 0.55% (OPA) 5L of which would cost KShs. 6000/-.

Each spinal needle retails at between KShs. 110/- to 180/- depending on the brand and the outlet.

At wholesale prices a box of 100 hypodermic needles sell for approximately KShs 130/-.

Currently the exchange rate 1 US dollar = 110 KSHs (approximate)

I hope this helps

Stephen
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