CSG Ep 3 C section

Welcome to Ultrasounds, a podcast by OBGYN Delivered. I'm Rachel, a fourth year medical student, and welcome back to our OBGYN Clerkship Survival Guide series where I will be sharing some tips and tricks for various parts of an OBGYN clerkship. Disclaimer - based on experiences at UMMS, but should be applicable to other institutions. Today we will be talking about the coolest surgery out there - the cesarean section! I may be a bit biased, but these are quite the cool experience to see even if you have no intention of becoming an OBGYN! C sections are also one of the most common surgeries out there so nice to be familiar with.

There is a chance your OBGYN clerkship might be your first time in the operating room! This can be a bit intimidating, especially if you are going back to the OR for the first time under a more time pressured situation, like an unplanned C section. My advice to help prepare is to watch some videos on how to scrub in as well has gown up for the OR, there are lots of videos out there! Your scrub tech is also your best friend in the OR, let them know it's your first (or one of your first) times in the OR so they can really guide you through. If you're already familiar with the OR, there's a few particulars about C sections I want to note - first being your patient is awake! It's easy to forget this when the drapes are up, but just be mindful that the patient (and their support person) can hear what is going on and anything that is said. These surgeries are also particularly bloody! I was quite surprised by this! I had done a trauma surgery rotation prior to my OBGYN rotation but the estimated blood loss in c sections greatly surpassed any I had seen on trauma! It's common to have around or in excess of a liter of blood loss in these surgeries, don't be afraid to step to the side and let the team know if you are ever feeling lightheaded!

Okay getting into the actual surgery! First, the patient will get a spinal for anesthesia, once that is placed the patient gets positioned, sterile prepped, and draped. Usually at this point right before they actually start the surgery, the support person is also brought into the OR. To start, the resident or attending will make the skin incision, they go about 2 finger breadths above the pubic bone and four finger breadths to either side.

I have a quick clinical pearl about c section incisions - the term transverse may be used generally to describe the direction of incisions; however, there is a more specific use of this term in regards to skin vs uterine incisions in OBGYN. The skin incision for a c section is transverse across the lower abdomen, called a Pfannenstiel incision. The majority of the time the uterine incision is similar - transversely across the lower uterine segment. This is referred to as a low transverse incision. This is important to distinguish from a vertical incision on the uterus which is used more rarely but has very important considerations and recommendations for subsequent pregnancies. So the main point being, if people are referring to a "transverse incision" they are likely referring to the incision on the uterus. Although the skin incision is also transverse in nature, you can really impress your team by calling the skin incision a Pfannenstiel incision.

Okay, back to the hypothetical OR! After Pfannenstiel skin incision, they will need to dissect through fascia, rectus muscle, and peritoneum. When they get down to muscle you'll see blunt

dissection used, this surgery is quite physical and the attending and resident will pull the muscles apart, putting a lot of their body weight into it. Blunt dissection is when tissue planes are separated without cutting, while sharp dissection cuts through tissue with tools like scalpels and scissors. This heals more easily than doing all dissection sharply. Once they are through the muscle, they may have to dissect the bladder off the uterus, this step is called making the bladder flap. You may be able to help throughout these portions by suctioning blood to keep a clear view. Before the actual uterine incision, they place a sort of guard called a bladder blade over the bladder to keep it protected from injury - the med student often holds this! The uterine incision is made next. Be ready for a lot of fluid when the amniotic sac breaks! (always safe to assume you will get blood or other fluids on your shoes anytime you are on L&D!) Once they are in the uterus, the surgeon will tell you to remove the bladder blade. They will deliver the baby next! You'll again see that this part is pretty physical - they will usually ask for the OR table to be lowered so they can get more leverage to pull the baby out, the assisting surgeon will help by applying pressure externally around the fundus as well. Once the baby is delivered, if things are looking okay, you can also do delayed cord clamping here. After about a minute, the cord will be clamped and cut, the same way I described in the vaginal delivery episode. The cord segment and cord blood samples are also collected the same way.

Again, this may be your moment to shine! Delivering the placenta is really similar to a vaginal delivery, however you can actually massage the uterus directly! You will apply gentle traction, although it is usually not as needed as it's easier to massage the uterus when you are already in the abdomen. You twist, twist, twist again to make sure all the membranes make it out of the uterus, you may see your resident or attending grasp the membranes out with ring forceps as well.

Once the placenta is out, it's time to close the hysterotomy or uterine incision. You can help here by cutting the suture when instructed. You can be prepared by asking the scrub tech for suture scissors. You can also help clear blood off the uterus with a lap towel between throws of the suture, just be very mindful of your timing and where the needle is at all times! Once the uterus is closed, the next step is closing fascia. You can help here by cutting suture again - heads up usually want to leave longer tails on the suture used to close fascia! You can also help with visualization by holding a retractor called a Brewster, following along as they get the fascia closed.

Lastly, closing the skin! Usually a running subcuticular closure is used. If time allows, you may be able to do this part! The best way to be prepared is watch some videos on the running subcuticular suture and practice on a model, there are pretty good suture kits that aren't too expensive online. A c section is a nice surgery to practice this skill because it's a straight, long incision. Many attendings have reminded me that the closure is the only thing the patient sees! So take care with this part and let your resident or attending give you pointers. From here, you might apply some steri strips and a dressing. Then the new little family will head off to PACU.

Again, I linked a great video of a (real) c section walkthrough with a voiceover specifically aimed at med students! I definitely recommend checking it out!

I hope this was helpful, best of luck in the OR! Thanks for tuning in, and remember, we put in the labor, so you can deliver!

Rachel describes what a medical student can expect during a C section.

Transcript

Resources
C section Walkthrough