THE JOURNEY TO A PEDIATRIC O.R.

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Two and a half years ago, after twenty years having worked in an acute adult trauma center, I changed my position and became a pediatric O.R. nurse. I figured this would be an easy transition, I loved children, I had a lot of O.R. experience (adult) and the job was in the same health region. Little did I know what a change I was in for? Thankfully, it was a very positive change for me. This is my personal experience, detailing my transition. Before I continue I would like to voice my thanks to the O.R. staff at Alberta Children's Hospital (A.C.H.) for their patience and understanding while I was adjusting to my new job. Specifically and especially I would like to thank Linda Rae, nurse educator, for her thorough and informative orientation program.

The internal workings of the body are similar, so the size of the patient should not matter, right?? I expected many similarities between the two centres; but, I never realized how few there were. As I alluded to earlier, my pediatric O.R. nursing position is within the same health region, so I was lucky to not have to deal with new charting and time out procedures. As well, our system using pick lists to assemble case carts was identical. Another comparable component was the nursing staff included service specific nurse clinicians and resource nurses. Both sites had morning and shift change report. Of course counting instruments and sponges is similar and surgical procedures are pretty consistent. In addition, accessory equipment, such as suction, electrocautery machines, I.V. pumps, etc. is the same. Now that is about as similar as the two positions are.

This brings me to the differences; this is where the "fun" and work began. Earlier I mentioned that the charting was universal; however, the way you deal with the paper work is different. A small detail about our chart is that it is carbon copied so one copy stays with the paper chart and eventually goes to medical records and the carbon copy eventually gets sent to data processing. At the adult site once the patient was in the P.A.C.U. (recovery room) both copies of the chart were left with the patient and when the patient is discharged from the P.A.C.U., these nurses separate the chart and leave it for the unit clerk. At the pediatric site the O.R. nurses immediately split the chart apart and take the paperwork directly to the unit clerk. I can't imagine telling you how many times I had to return to the P.A.C.U. in one day to separate my paperwork. I did learn to change my behaviour with this difference quickly.

The other difference that was easy to change was the handling of the dirty case cart. At the adult site, the nurse herself takes the dirty case cart to the dirty elevator and discards her sharps and used suction canisters. At the pediatric site the housekeeping staff takes the dirty case cart, and sort out the cart for the nurses. I still do casual at the adult site and the last time I was there I left my dirty case cart in the O. R. theatre and I was frowned at as someone else wheeled it down the hall for me. So, I really like this variation to my routine.

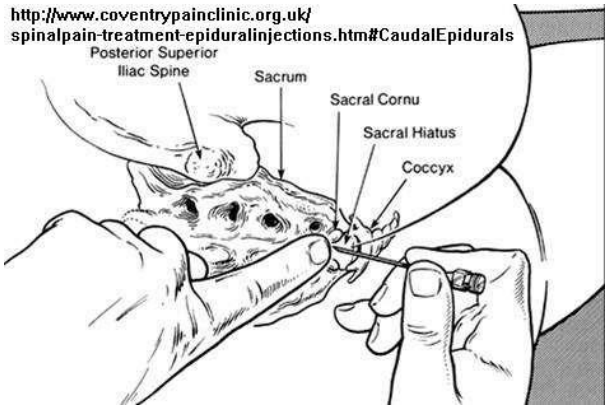
Subsequently, I will talk about the obvious difference of the structure. Luckily A.C.H. is a relatively new hospital, with huge O.R. suites and state of the art technology. The adult site did have two out of twenty three O.R. theatres with this state of the art technology: but at the A.C.H. five of the ten theatres have it. Also, at A.C.H. the suction, electrocautery machine, smoke evacuator, light source, insufflator and camera are all

suspended from the ceiling on a stack; whereas, if we needed any of these things at the adult site we had to bring the equipment is piece by piece, further shrinking the theatre size.

Speaking of size, yes the different sizes of patients is obvious; but a hernia is a hernia and a tonsil is a tonsil regardless of the size of the patient. Nevertheless, at A.C.H. we perform dental surgery and G.I, upper and lower endoscopic surgeries (not done at the adult sites in the O.R.). The difference of size that is remarkably different at A.C.H. is the airway, we do deal with infants (premature also) all the way up to eighteen year olds, so airway management is different. Children after about six to eight years old are given the option of mask and opposed to I.V. induction. As well, patients over the age of one to two years (depending on the anesthetist) have the option of having a parent come in for the mask induction. Wow!!! No monitors on the patient, boy was that scary (at first). In adults one always attaches all the monitors to the patient, and then starts an I.V. (while the patient is awake) and then start the anesthetic, be it general or regional. With children effective airway management is very important without an I.V., as an adjunct to give I.V. medication to support a potential reactive airway (which children are way more prone to). Also, at A.C.H. the anesthetist usually manages the airway, so the nurses have to start the I.V. I can tell you for a fact that my I.V. start skills were a little rusty. To conclude, I find that the difference in pediatric inductions was a very difficult and anxiety provoking adjustment for me.

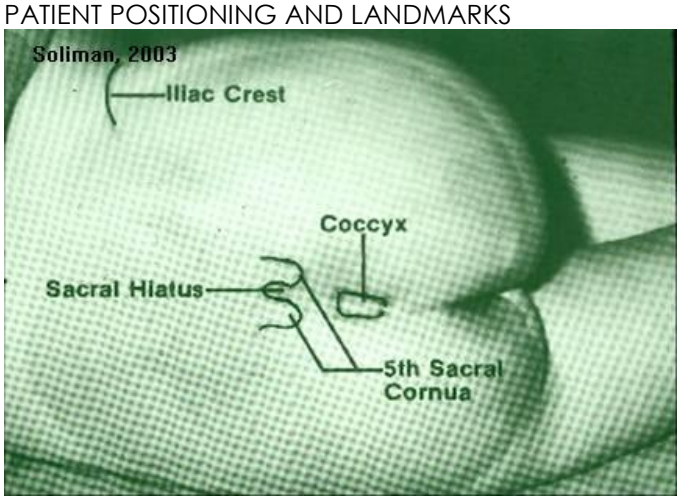
A resident one day made a comment that alludes to the next difference. He said something to the effect of pediatric patients being more "pure", that is they haven't had a chance to abuse their bodies with substances like alcohol and cigarettes. However, the shorter airway in infants and children and thus different head positioning to maintain an open airway coupled with the higher risk of reactive airways in pediatric patients leads to more "Code Blues" due to a much higher frequency of respiratory distress within the pediatric population.

In a pediatric O.R., I would guess that ninety-five percent of the surgical procedures are done under a general anesthetic; whereas, at an adult site the anesthetists perform more regional anesthetics. In a pediatric site anesthesia utilizes caudal blocks as an adjunct to the general anesthetic. "A caudal block is the single most popular regional anesthethic technique used in infants and children… The success rate in children under 7 years of age is 99%, but most failures occur in the oldest. Caudal anesthesia can be used for anything surgical under the umbilicus and is an acceptable alternative to general or spinal anesthesia in premature and high-risk infants, where a regional anesthesia alone may be preferable"1



"The caudal epidural space is the lowest portion of the epidural system and is entered through the sacral hiatus."2

PATIENT POSITIONING AND LANDMARKS



"The lateral position is often used in children, as the landmarks are easier to find than in adults. Care should be taken to avoid over flexing the hips, as this can make the landmarks more difficult to palpate. The sacral hiatus and the posterior superior iliac spines form an equilateral triangle pointing inferiorly. The sacral hiatus can be located by first palpating the coccyx, then sliding the palpating finger cephalad until a depression in the skin is felt. Always above intergluteal folds."2

An O.R. cannot work without support staff. Thus my next difference relates to job descriptions including the support staff. At the pediatric site I work only with R.N. staff whereas at the adult site, they employ both R.N. and O.R.T. (Operating Room Technicians) staff. At the adult site and as an experienced R.N., I very rarely scrubbed. But, at A.C.H. since I was a "new" staff member with plenty of experience I had the choice to scrub or circulate. Also at the adult site, the surgical processors where able to open up sterile packages/bundles in order to decrease the number of R.N.'s needed to start the day. At A.C.H. if we have 2 nurses working in the theatre, the scrub nurse sets up after the parent has left the O.R. (if they accompanied their child into the theatre). So the day can be busy at A.C.H. with little time to set up, but we do mostly have smaller cases and less counting which I will speak on next.

I must admit there is a lot less counting done at the pediatric site, as for example with hernia surgery we only count instruments "in" when the patient weighs more than forty kilograms. We don't count much for tonsils as few surgeons use tonsil balls and/or a blade. We do perform fewer laparotomies, so full instrument counts are decreased. But on the flip side we do perform more surgeries, per room, per day, as a whole.

Positioning at A.C.H. is mostly supine, as even cystoscopies are performed without stirrups (we pull the pt. to the end of the bed and frog leg the pt. on bolsters. At the adult sites, there are a lot of patients positioned supine; but, the percentage of patients positioned in the lithotomy position, on the fracture/spine table is substantially higher. So, at A.C.H. positioning is easier and faster.

Fittingly, the next set of differences is straightforward; but yet a big hurdle to climb. Just the physical layout of the O.R. and being able to locate (or not) supplies and

instruments. This includes the different set up of the anesthetic cart. I swear it took me over three weeks to stop reaching for E.C.G. leads for example in the place they "used to be" for me. It seems trivial but it did affect my efficiency, as well as supplying much frustration and wasting my time. In addition, all the phone numbers are different, and I used to know all my phone numbers off the top of my head, and then I had to look every number up. Another thing that had an impact on my efficiency, was not knowing the idiosyncrasies of the surgeons and anesthetists. This lack of knowledge made me feel like a new grad despite being a very skilled O.R. nurse. This was a hard pill to swallow, as I really felt I had to work harder to prove myself to most of the staff. I went from being a well respected, organized charge/resource nurse, to being a new learner; this for me is still the hardest adjustment I still at times struggle with.

A few of the changes that I find extremely is scheduling and the hours of work. At A.C.H. there is no "night" shift, we work 3-11 and are on call for the night. We know what theatre we will be working in for up to 2 weeks at a time. I did come from a site where we had "team" nursing, which I do miss. At A.C.H. the nurses rotate through all the services on a 1-2 month basis. Again some days I feel like a jack of all trades and a master of none.

I have to make a note of the efficiency of the housekeeping department. Their room to "hang out" is located just before the P.A.C.U. so they see patients go by and they know thy have to do a changeover. At the adult site we had to page the housekeepers on the internet or over the phone and we usually frequently had to wait for someone to show up.

In conclusion, all in all I feel like I work harder (A.C.H. does do more cases in a day with less theatres than most adult sites). I admit the critical nature of the cases may be diminished but I am more tired at the end of my day at A.C.H., or is this just because I am getting older?? No, I do feel I work harder but I know I have less stress. Is it boring?? Perhaps, but a change is as good as the rest. And what job provides the ability to get a cuddle from a baby/child with the satisfaction of knowing that by completing their surgery you are more than likely improving the quality of their life.

References (both googled off the internet)

1) Caudal block in pediatrics Authors, N. Zadra, F. Giusti, Journal: Minerva anestesiologica
2) www.pitt.edu/~regional/Caudal/caudal_block.htm