Episode 23 – Your Child's Surgery

(Intro) Aislinn: Do you have an upcoming surgery? Are you feeling a little overwhelmed? Then this is the podcast for you. Welcome to Operation Preparation. You are listening to the Pre-Anaesthetic Assessment Clinic podcast or PAAC for short from St. James's Hospital, Dublin. Here we put together a series of short episodes to help you, your family and your loved ones learn more about your upcoming perioperative experience.

Aislinn: Welcome back everybody to Operation Preparation. This is episode 23, Your Child's Surgery, and I'm doctor Aislinn Sherwin, Consultant Anaesthesiologist in St. James's Hospital. And I'm here with Roseann Murray, who is our Clinical Nurse Specialist in the Pre-Anaesthesia Assessment Clinic. We're delighted today to have two very special guests on the podcast. We have doctor Suzanne Crowe, who is the President of the Irish Medical Council. She's also a Paediatric Anaesthesiologist and Intensivist in Children's Health Ireland, and she's author of the bestselling book, 'Intensive Care'. And we have our other very special guest, Emmet, who is going to talk to us about his experience having surgery recently. So let's get started, Suzanne, can you give us an idea of what to expect on the day of your child's surgery?

Suzanne: So usually when you come into the day ward, and hopefully you found the day ward by following the signs. When you come into the day ward, you'll be greeted by one of the staff nurses and you'll be asked a series of questions and settled down either into a chair or a bed to wait for your time to go to theatre.

Aislinn: And what kind of questions do those staff ask, Suzanne?

Suzanne: We do ask a lot of questions. We ask a lot of questions about your child's health and their background in terms of what kind of surgeries they might have had before. And we ask about your family history because sometimes we get clues in what might lie ahead for your child by listening to the story of things that have happened in your family.

Aislinn: And who else would the parents and the child meet when they come in for surgery?

Suzanne: So we are very lucky in Children's Health Ireland, we have play therapists. So lots of children will meet a play therapist who will go through the different steps as well. And that's a big help. We also have psychologists, we have nurses, we have healthcare assistants, and we have catering staff. And you'll meet all of those as your day goes along.

Aislinn: So it's a very busy day.

Suzanne: It's a busy day. And we don't expect you to remember everybody's name. But we will know your child's name.

Aislinn: Great. Okay. And I suppose one of the key things that parents are always worried about are we allowed to go down to the theatre with our child?

Suzanne: Yes, you are. However, we generally only have room for one parent. And that's because we need to have somebody with mum or dad, or their guardian. And we need to have a couple of people setting up for the surgery and looking after the anaesthesia and looking after obviously everything else. So we have limited number of staff. So we do say just one parent, but in certain situations, you might want to discuss that in advance, we'll make an exception and have two. So it's a rule, but it's a flexible rule.

Rosie: And then just about the anaesthetic itself. You know, we've had episodes in the past where we've discussed the different kinds of anaesthetics. And then another episode about what is a general anaesthetic and how does it work and regional anaesthetic. But what kind of an anaesthetic will my child have? And what's the best options?

Suzanne: Generally, children will have, particularly young children will have a general anaesthetic, because it's quite difficult for a young child to lie sufficiently still, perhaps under a block for a long enough procedure. And even for short ones, it can be fairly challenging. Although we have used a lot more modes like audio and visual materials to distract children. So there's a lot of interest in the development of that. But for the moment, on the most part, it'll be a general anaesthetic.

Rosie: Brilliant. And how is this anaesthetic given then to the child?

Suzanne: Very young children will go asleep with a mask. So it's a soft plastic mask, usually clear, kind of pink or blue colour. And we pop it onto your child's face and they breathe in and out a mixture of a sleepy anaesthetic gas. And that's how your child will go to sleep if they're young. And if they're a little bit bigger, they might have a little blue or pink plastic cannula sighted on their hand or their arm. And that will be used to give medication into their vein. So we decide that really based on your child and the specific kind of surgery they're having and their background. So you, I suppose, as a parent, you need to be prepared for both possibilities.

Rosie: Very good. And then, so we're in the theatre and we're just about to go asleep. So what should parents expect to see then as your child is going off to sleep?

Suzanne: Children continue to be quite active, interestingly, as they're going asleep. It's not just a complete kind of fall into unconsciousness. What you might notice, because children's brains are very active under anaesthesia, is that they will continue to wriggle and perhaps shake a little bit. And that feels quite unnerving if you haven't been prepared for that. We will often have a child sitting on your lap. So you hold your own child as they go asleep and you'll notice your child relaxing down into your arms. And some people find that, again, a little disturbing. So it's good to chat about that in ahead. And the other thing you might notice is you'll notice your child's breathing changing. So how they breathe will change a little bit. And again, that's normal and to be expected. But if you didn't expect it, you might find that a little frightening. So there are lots of things to see in your child that you might not have seen before, but we will reassure you along the way and tell you if there's something unexpected going on.

Aislinn: So, Suzanne, what are the common side effects for children having an anaesthetic?

Suzanne: The common side effect is because children react to sedatives in, I suppose, kind of a paradoxical way or sometimes quite unusual ways. It means that the common side effects are either agitation or sedation and drowsiness afterwards. And it's really difficult to predict which child is going to react in which way. Although we do know that younger children are much more likely to suffer this kind of agitation in the recovery room afterwards. We call that emergence delirium. And your child will not remember it at all afterwards. But mums and dads can find it quite upsetting to see their child agitated like that. So it's nice to reassure people about that as well. Or your child could be quite drowsy on the day ward afterwards. And if you're not comfortable and happy to take your child home when they are drowsy, then just let staff know that.

Aislinn: Okay. And sometimes parents might worry about children having an anaesthetic and how that affects their brain. Is there any evidence about damage to brains from having a general anaesthetic in small children?

Suzanne: That's a great question. And I certainly have been asked that by lots of parents over the last couple of years. The countries like Denmark have huge amount of data going back right from birth the whole way up through school and school leaving results. And they have tracked that kind of information, looking back to see what kind of surgeries children had as babies or as older children. And there is no evidence that surgery and anaesthesia is bad for your brain. However, you should always avoid having an anaesthetic if it's not necessary. And that's a kind of a good philosophy for life that I think most anaesthetists would support. You know, every surgery presents its own issues and risks. And so we would never take surgery and anaesthesia lightly and dismiss all risk out of hand. But we do know from these very, very big longitudinal studies that your child's chances in life and getting through exams and that kind of thing in the future will not be damaged by them having an anaesthetic.

Aislinn: That's really reassuring, Suzanne. That's great. And when the child comes to theatre, obviously, apart from all of the staff that are there, we use some kind of different monitorings and things that people might not be familiar with. So what sort of monitorings might you put in place on our child before they go off to sleep?

Suzanne: Well, the funny thing is, is that actually a lot of these monitors you can now access at home and you can buy a blood pressure monitor on Amazon or in Boots and you can buy a sats probe as well. So you will have a little sats probe, which is like a little kind of sleeve that sits on your finger or on your child's finger. And it has a red light which shines across the nail bed and picks up the amount of oxygen in your blood. And you'll also have an electronic monitor of your heart rate. And again, lots of people have that on, you know, smart devices, Apple Watches and things. So I think patients are generally becoming a lot more familiar with the idea of monitoring. The other monitor that we use in small children under anaesthesia is we measure the amount of carbon dioxide coming out of a child's lungs. And that's a really important and very reliable monitor in paediatric anaesthesia. So that's a core part of our monitoring as well.

Rosie: Great. So if my child has a medical condition such as asthma, for example, does that condition increase their anaesthetic risk?

Suzanne: The blunt and short answer is yes. However, we are well prepared to deal with all manner of medical conditions in children. It's part of our training, but we do need to know about them. So it's really important that you tell us that your child has asthma. And then we'll ask you a few more questions about what kind of medications they're on, whether they've ever had any admissions to hospital because of their asthma, whether they've ever been in the intensive care unit because of their asthma. So we will kind of go into that a little bit more with you if we know about it. And then we can make plans and preparation so that any small risk associated with your child's asthma, we will have mitigated and sorted out in advance.

Rosie: And I suppose then to build on that, something that we've mentioned in previous episodes that, you know, if your child is attending other specialists that you come with that information to hand who they attend, what scans they might have done, bring that information with you and where they attend as well.

Suzanne: Yeah. I mean, this is a partnership. We are going to work with you as mum or dad of your child. And so if you share plenty of information with us, it's really helpful that we as a team with you will make the correct plan for your child.

Aislinn: So Suzanne, after the operation is all done, how long does it usually take children to wake up?

Suzanne: Well, I'm often surprised by this, but generally the longer you are asleep, the longer your surgery, the longer it takes to wake up afterwards. So that's a kind of a rule, a fair rule of thumb. So if your child is coming for quite a short procedure, like grommets insertion, which would be maybe a 10 or 12 minute procedure, you can expect your child to be awake within about 10 or 12 minutes. However, if you're coming, if your child's coming for a major surgery, where they're asleep for three or four hours, then they will be quite drowsy for a number of hours afterwards and may need admission to the hospital overnight because of the length of the procedure and the surgery.

Aislinn: And obviously, parents may not know what's going on during this time, and it can be a bit of a worry when they're waiting to hear. But when will parents or guardians get to see their child again?

Suzanne: Yes, well, those minutes are the longest minutes you'll ever pass. And I've been that parent on the other side, walking the corridors and wondering when I'll get to see my child again. It's a difficult time. We don't tend to have the resources, I suppose, to keep in touch with parents all the time with more elective and small procedures. But we hopefully will have given you information in advance. So you have some idea as to what time we'll be calling you to come and get your child from the recovery room, with longer, more complex procedures, for example, the heart procedures or the spine procedures. We have clinical nurse specialists who will keep in touch, coming in and out of theatre, bringing information back to you and letting you know where things are at. And I think that that's really helpful.

We'd love to be able to extend that to a much broader range of surgeries, but we just wouldn't have the resources to do that at the moment. But we will always pick up on parents who have particular anxieties, for example, if your child has had difficulties in the past. So do ask if you want to have particular information brought out to you, because we can often work around that.

Aislinn: I'm sure parents really appreciate that, actually. It's great to be reassured when you hand over the trust of your child to somebody else. It's great to know that they're in good hands. We spoke a little bit earlier on about the immediate behaviour changes after anaesthesia. After the patient or the child comes back to the ward, are there any other changes that we should expect?

Suzanne: There's no doubt that surgery and anaesthesia interferes with your child's sleep-wake cycle, and you will find that it's quite difficult perhaps to settle your child down to sleep that night. They may not have the appetite that you thought they would, even though they're fasting, they might not be that interested in food afterwards. So I would generally say just stick to encouraging small drinks afterwards. The first 24 hours will be a little bit bumpy in terms of getting back into your own routines, and then from the following day on, things should settle.

Aislinn: Great. And I suppose it's probably a broad question, but when could they eat and drink?

Suzanne: Well, most children will eat and drink reasonably quickly, and for young children, it's a great way of keeping them settled. So if your child is still on a bottle or a cup or on the breast, we would always encourage the baby to feed really as soon as possible after surgery, because we know that feeding in small children releases all those nice, happy, comfortable hormones, all the endorphins, and contributes to comfort and pain relief. So feeding is a good thing. You will be told specifically by the surgical team or the anaesthetic team if your child should not feed after or eat after surgery. But other than that, it's a good idea to just get going with small drinks.

Rosie: We spoke before as well about, you know, postoperative pain and the pain ladder monitoring pain between zero to ten. But how will my child's pain be managed during and after surgery? And is that something that's used in paediatric patients?

Suzanne: It is. Although we modify the pain scales a little bit because lots of children won't be speaking depending on their age and developmental stage. So we use other pain scores, but recovery staff are usually very skilled in assessing your child's pain. And also, we will ask parents what they think and whether their child is in pain, because you know your own child better than anybody else. So if you think your child is in pain, don't be afraid to speak up about that. But the staff will use a pain assessment tool to manage your child's pain. And sedation is very much tracked into that. So we will also assess your child's level of sedation. And then we'll be using different pain relieving methods to manage your child's pain. We do use the strong medicines, the opiates, but we also use more simple painkillers like the Nurofen and paracetamol. And we will use lots of local anaesthetic as well because we find that that's really effective. So we tend to use this multimodal combination of painkillers.

And we find that that's usually really successful. However, what can happen, and it's an interesting thing or something to watch out for, is we can have your child very comfortable as they're leaving the hospital and going home, which is great. But it's really important as a parent that you follow the instructions afterwards and keep going with the painkillers as instructed so that you don't have that sharp kind of jump or bump off where your child was comfortable and now is in a lot of pain. So keeping up with the painkillers as they have been prescribed is really important in the days after surgery.

Rosie: And that's really, really good advice. But what are the side effects of some of those pain medications and what should a parent watch out for then once they're at home?

Suzanne: The side effects of the simple painkillers would be very minimal. You might get a bit of a sore tummy after using something like Nurofen, but that would generally only be for long periods of days. We find that paracetamol and Nurofen are very well tolerated. The opiate medications, it would be more unusual for a child to be on at home, and that might be something like a morphine syrup, which we call Oramorph. And sedation and vomiting are the two common side effects from that. But you will be given very specific instructions around giving your child something like that kind of a medication.

Rosie: And then what about returning to school or normal activities?

Suzanne: Well, small people might like me to say that you should stay off school for ages, but actually we would suggest that you should go back to school pretty quickly and get back into your activities. However, you should be careful with things like swimming, because you might have a wound and your child might have a wound. And it's really important that that wound is completely sealed before you put back on the togs and jump into the pool. And likewise, if you've had ear surgery, you don't want to get swimming pool water into your ears. So there are specific activities that if you think your child is going to be doing in the following week or two after surgery, it's a good idea to mention them to your surgeon and your anaesthetist. But in general, as a rule of thumb, we would say get back into activities as quickly as possible. And again, just going back to as a mom and as a dad, you know your child best. So if you think that your child is ready to go to school or creche the following morning, then trust your instincts. Then they're ready.

Rosie: And like that, I suppose, depending on the kind of surgery that they've had, the surgeon will give very particular advice as well, depending on what they've had.

Suzanne: Yeah.

Aislinn: So I know then, Suzanne, that my child might be having surgery in the coming weeks. How do I best prepare them for that day? And should I explain everything in advance or should I keep it simple? Is there anything specific that I can do to help them along?

Suzanne: I think it's a good idea to start talking to them in the days beforehand. Children, the sense of time is a little bit different. So you may create anxiety by talking about it for weeks and weeks before. However, in the couple of days before surgery, what you can do, it's a nice way of preparing your child, is to get your child to pack a little bag with you. And

as you're talking to them about the things that are going into the bag for going into hospital, you can be chatting about what might happen. So you're putting in the Paw Patrol jammies or the favourite little soft unicorn that's going to come to the hospital. You're putting in the sippy cup or the bottle and chatting about why you're packing this bag and what your child is going to experience in the couple of days around that time. And I think that that really can uncover any kind of fears that you have, because sometimes your child going in to have surgery can bring back memories of maybe when you had surgery as a child. And it's good to explore all of that in your own head, because children see the whole day in theatre and in hospital through your eyes. So if you as a parent are experiencing a lot of fear and anxiety about that day, then your child will pick up on that and will be very worried about the day ahead. So work out through your own kind of thoughts and fears about the day, and then chat to your child and be really clear in your information to your child in a kind of a non-dramatic, this is what we're going to do and this is why.

Aislinn: That's really great advice. And I know that children definitely pick up very quickly on anxieties that parents might have. So it's really important to kind of monitor how you're doing yourself around that perioperative period. Are there any child-friendly resources, Suzanne, that you could suggest or parent resources that we could use?

Suzanne: There is actually lots out there. This podcast, for example. So like and subscribe. Or actually there's a fantastic book and it's also available on audio called Your Little Sleep. And it was actually illustrated and written by another anaesthetist who has the same surname as myself, her name is doctor Anne-Marie Crowe. She is a Paediatric Anaesthesiologist as well and she wrote this book. And I think it's a lovely resource for your child. It's all illustrated in very child-friendly, with child-friendly pictures. And because it's actually written by an Irish Anaesthesiologist, it very much mirrors the kind of experience that your child will have when they come into theatre here in Ireland.

Rosie: So then just getting down to some other kind of more practical questions about the day. What time should food and drink be stopped?

Suzanne: Well, we would like you to have that your child wouldn't have had anything to eat a good six hours before their surgery. So depending on whether you're coming in for morning surgery, then you shouldn't have anything to eat from the night before. And if you're coming in for afternoon surgery, then your child can have some breakfast and then no food after that. But in Children's Health Ireland, we do a fasting policy called sip till send. And so we encourage children to continue to drink water, apple juice, 7up right up until the time that they're sent for for surgery. And we have found that this doesn't increase the risks in any way. And it means that children are really comfortable and well hydrated coming to theatre. So in most situations, that's the protocol. We'll follow no food for six hours and drinking clear fluids all the way up until you're ready for surgery.

Rosie: That's great. And just to add in there as well, that every hospital is different and they might have a different fasting policy. And just to follow the instructions that any parent has been given. And then to follow on, what about medications? What particular medications might have to be stopped beforehand?

Suzanne: In general, we would continue all medications. And that has been a big change, actually, since I started in anaesthesia quite a few years ago. We now understand that it is better to maintain a baseline level of medications for children. And we would see that particularly with as you use the example of a child with asthma. So definitely your child should have their inhalers in the morning. If your child has epilepsy or any kind of seizure disorder, then they should have their anticonvulsants as usual. So in the main, it is important that your child, even though they haven't had anything to eat, that they would have their normal medication with a drink of water in the morning.

Rosie: Brilliant. And again, specific instructions will be given to parents. And if they have any concerns at all, just to contact the hospital that they'll be attending. So what should a parent do that if their child becomes unwell in the days leading up to the procedure, if they develop a cough or a fever?

Suzanne: Well, we don't panic too much about coughs and colds because you can imagine that if we were to cancel everybody with a cough, we would be doing nothing between October and May. So what we do is we encourage people to have kind of a sensible view about this. It's like in the same situation as to whether you would decide to send your child to school that morning. If your child has a bit of a cough, that's fine. But if they're quite listless, not really interested in eating, not really interested in playing with their toys, and they look like they're feverish and you check their temperature and their temperature is up above 36.5 degrees Celsius, then it would be a good idea to ring the hospital and let the hospital know that. Because that's a sign that this is a bit more than a cough and that this is an infection that possibly is affecting all of your child rather than just their throat. And so it would be a good idea in that situation to postpone surgery for a couple of days or even weeks so that your child can be fully recovered before having their surgery and anaesthesia. But it's, I suppose, just to let parents know not to panic if your child has a bit of a runny nose or a bit of a cough on the day of surgery. We will make a very sensible decision around that for your child, because we do understand that it's important that your child gets their surgery done.

Rosie: And then after surgery, when parents are gone home, if they develop any concerns or worries, who should they contact?

Suzanne: So you can, your first port of call can be your GP in the community. So reach out to your GP if you're concerned about anything, or you can contact the hospital. You will be given a contact number of the day ward or possibly a member on your team, and you can contact them and just check in if you have any questions that you forgot to kind of look at before you left the hospital. Or if you have a particular worry, for example, if the bandage has fallen off your child's wound and you're not quite sure what to do about that, then just get back in touch with the hospital.

Aislinn: So I suppose finally then, Suzanne, if this was your child, is there anything that you would do specifically or questions that you would ask that we haven't spoken about?

Suzanne: No, I think your questions have been very complete. I would just encourage people to ask questions though. I often marvel at how little parents ask about the day ahead

for their child. And I worry a little bit about that. Is it because they're too scared to ask or what it is? So if you have something that's really bothering you and you're just wondering why something is happening or why something's not happening, don't be afraid to ask. We genuinely don't mind questions and we do often forget to explain certain aspects of your child's care because for us, it is a normal day. So for you, it is a really big day in your life and in your child's life. But for us, it's a normal day. And so we may have forgotten to explain something. And if you're worried about it, just ask.

Aislinn: Thanks very much, Suzanne. So we also have our patient Emmet here today to talk to us about his story. So Emmet, would you like to tell us about your experience of surgery?

Emmet: So I was 11 when I came in for a tonsillectomy. I'd had repeated tonsillitis. So we thought it was best to just remove the problem. We had received a date for it and it got delayed and delayed. It got delayed a couple of times, which was the only complication with the first surgery. Everything else went very, very well. And then after about a week and a half of recovery, we had a bleed and we had to come back in for an emergency surgery, which was definitely more nerve-wracking.

Aislinn: And I suppose it must have been really hard for you, Emmet, that you were expecting something to happen and then the delays that you mentioned probably were a bit disappointing for you. How did you manage with that?

Emmet: Well, the first one was very upsetting. We were ready for it and it just got cancelled. And it was rescheduled and then it was cancelled. And by the second time it was cancelled, we had reached the point where we decided when it happens, it happens and that's fine.

Aislinn: Good. And then when you came in on the day, how did you find meeting everybody that we spoke about earlier on? Was it scary to see so many people in one place or did you feel at ease?

Emmet: It was a bit overwhelming, but it was also very comforting. There were so many people there to make sure everything went well and look after me.

Aislinn: How did you find people explain things to you? Did they explain it at a level that you were able to understand?

Emmet: Yeah, everything was explained very, very well. I understood everything that was happening and there was no unsure. I wasn't unsure of anything. I knew what was going to happen.

Aislinn: And the first time around then, did they put you asleep using a mask or did they put a cannula or a freddy into your hand?

Emmet: I had a cannula into my arm. We decided that was easier than a mask.

Aislinn: And how did you find that?

Emmet: It was great. I know some people are afraid of needles, but it wasn't bad at all.

Aislinn: Great. I'm sure you were very brave. And was mum or dad with you when you went down to surgery?

Emmet: Yeah, my mum was in the room the entire time, right up until I went to sleep. It was much better than being there on my own.

Aislinn: Good.

Emmet: With all the machines.

Aislinn: It is a lot of equipment, isn't it?

Emmet: Yeah.

Aislinn: It's definitely not something you'd be doing every day.

Emmet: No. It can get a bit, you can get a bit anxious waiting for it, but when there's someone there, it's more comforting.

Aislinn: Good, okay. And after the surgery, do you remember waking up?

Emmet: A little bit. I remember, I think, waking up once in the recovery room, and then falling straight back to sleep.

Aislinn: So, Emmet, how did you feel, then, when you woke up after the operation?

Emmet: Really great. There was obviously a bit of a sore throat, and I couldn't speak very much, but started drinking straight away, and it was great.

Aislinn: Great. Did you go home, then, after the surgery quickly?

Emmet: We stayed the night, I think, and but really just because it was a later surgery, and woke up the next morning and was out by 12 o'clock, 1 o'clock.

Aislinn: Fantastic. Now, you mentioned that you had your tonsils done, and you had to come back then after a week or so with a bit of a bleed. How did you find that experience?

Emmet: That was slightly more anxiety inducing. We were, everything was going fine, and then I spat up a bowl of blood one morning, and we just went straight in. And it was, again that was more nervous, because everything was done. It wasn't prepared, it was, everything had to be done straight away and getting as fast as possible.

Aislinn: Yeah, so that would have been definitely emergency surgery, I suppose. And was there anything really scary or very kind of worrying that happened?

Emmet: The only thing that I would say is I was, that was very overwhelming, I was lying in the bed, preparing to go in, having the cannula put back into my arm, and the consent form was being read out beside me, which can get slightly scary. It was just listing all the complications that could go wrong.

Aislinn: There's a lot of complications, I think, that sometimes people go through that, if you're listening in and you're understanding what's going on, it can be a bit terrifying.

Emmet: Yeah. Definitely, it was hard to hear, well that, it was hard to hear everything that could happen to me when the first time had gone so well.

Aislinn: And we possibly have some healthcare professionals listening in. Is there any advice that you would give them as a patient?

Emmet: Again, read the consent form away from the child that is having to go under emergency surgery. It's already very anxiety inducing. So, adding more stress to that doesn't help.

Aislinn: Yeah, that's very good advice. Hopefully, our healthcare professionals listening in might take a leaf out of that book. So, is there anything that you would do differently or how what advice would you give for other children who are preparing to have surgery?

Emmet: Don't get worried about it. Everything will go well. There's so many people there to make sure it does and look after you once it's finished. So there's really nothing to worry about.

Aislinn: Great. That's fantastic to hear, Emmet. Thanks so much for coming in and sharing your story with us.

Emmet: It's no problem.

Aislinn: And I suppose just to round up the episode then, there's a couple of very important things to remember for parents. There's no question that is too silly to ask. We want to hear your questions and we'll try your best to answer them. And that there's some really great resources out there which we will link to in the show notes at the bottom of the episode. So thank you everybody for listening to episode 23. Stay tuned for a final episode in season 4 with Amy Nolan from the Irish Cancer Society and survivor Anna, who will tell us about her cancer and surgery journey. Thank you for listening.

(Outro) Aislinn: You have been listening to Operation Preparation, Pre-Anaesthetic Assessment Clinic podcast from St. James's Hospital, Dublin. Don't forget to subscribe and check out our website, links and abbreviation in our show notes to learn more about the topics we've covered today. If you have a question that you would like us to cover here, email us at operationpreparation@stjames.ie. Thank you for listening. Until next time.