Episode 19 – Awake Intubation: what to expect and why it is done

(Intro) Pam: Do you have an upcoming surgery? Are you feeling a little bit 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.

Julie: Welcome to the first episode of Season 4 of 'Operation Preparation'. My name is Julie and I am one of the junior doctors in Anaesthesiology and here with me today is Pam, one of our Clinical Nurse Specialists in Pre-Anaesthetic Assessment. To start, we would like to thank the Spark Seed Innovation Fund who have made the recording of this season possible for all our listeners.

Today we will be speaking about awake intubation, what to expect and why it is done. This episode is intended to help you understand what to expect if you need an awake intubation. Joining us today is Consultant Anaesthesiologist and Airway Specialist, Professor Ellen O'Sullivan, a leading international expert with vast experience in awake intubations and Anaesthetic Airway Fellow, doctor Robbie Hollingsworth. Thank you both for being here today. So to begin, can you tell us what is an awake intubation?

Ellen: Thank you very much. Now, normally before you have your operation, the anaesthetic doctor inserts a breathing tube into your windpipe to get oxygen into your lungs while you're asleep. This is called intubation and we usually do that procedure while you're asleep. This type of asleep intubation is discussed in more details in episode 12 by Consultant Anaesthetist Aislinn, if you want to have a listen back to that episode. However, sometimes in certain special circumstances, it is better for us to put the breathing tube in while you are awake. This is an extra safety measure that is taken when it looks like there might be difficulty passing the breathing tube into your airway. We really want to make sure we keep your oxygen levels up during the process so that when we put the breathing tube in whilst you're awake, it is safer and you breathe by yourself at that point. Now, once it's safely guided in, then you go off to sleep straight away. And this is all done with a small, slim camera known as a fibre optic scope. It is flexible and has got a special camera on the tip so it can be used to guide the breathing tube safely into your airway.

Pam: Thanks for that, Ellen. But why might I need an awake intubation, Robbie?

Robbie: Yes, of course. So before your surgery, the anaesthetist will check your airway by looking at how much movement you have in your jaw and neck, look in the back of your mouth, and sometimes also check any scans you might have had of your head and neck. From this assessment, the anaesthetist can make a judgement call to say some people might have a potentially difficult airway. This just means that the anaesthetist expects that the insertion of the breathing tube might be more difficult than usual. In such cases, it is deemed safer to insert the breathing tube whilst you are awake.

Ellen: Now, this might be necessary for many reasons, maybe because of the issues, as was said, with movement in your neck or your jaw. Some people have injuries to their necks and

have special collars that can't be removed, for instance, after a car crash, which makes an awake intubation necessary. Other times, people may have bad infections in the back of their teeth, causing a lot of swelling in the mouth, and this prevents the mouth from opening much. Other people may have had some knocks to their face playing sports and fractured their jawbones. This makes it very painful and difficult to open the mouth. There are also certain cancers in the mouth and the throat that can make it difficult if they're quite big, so the safest option in these scenarios is to keep you breathing yourself until the tube is safely in the airway. So there are a lot of examples there, and we take it case by case and treat everyone as an individual. You're assessed and then the decision is made. Now, here in St. James's Hospital, where we work, we are a centre of excellence for head and neck cancers and maxillofacial jaw surgery, so forth. So we are very used to doing these kinds of intubations on a regular basis.

Julie: Thank you both very much, both Ellen and Robbie. That makes a lot of sense and is really clear. But can you tell us, how is an awake intubation actually performed?

Robbie: Yeah, so we'll just go through things step by step. First you'll be taken into the anaesthetic room. Pam told us a lot about what happens in the anaesthetic room in episode 3. So when an awake intubation is happening, the anaesthetic team will attach monitoring equipment to you. A cannula or drip will be placed, usually in the back of your hand. When safe to do so, the anaesthetist will give you sedation or some sleepy medication through this drip. This may make you feel more relaxed and less likely to cough. Your anaesthetist will then administer local anaesthetic to numb your nose and the back of your mouth. Various techniques to do this can be used and are tailored to each individual patient. It will usually involve a spray into your nose or mouth. The local anaesthetic can taste quite bitter. This process can last several minutes until your airway is numb. You may also be given a medicine through your cannula or drip to make your mouth dry if there is a lot of phlegm or saliva and a small suction device can also be used to clear them as needed during the procedure.

Ellen: Now once your airway is numb enough, and we will check that, the anaesthetist will pass this thin camera scope that I mentioned down your windpipe through your nose or mouth. Now the breathing tube will then be passed over that camera into your windpipe and the camera will be removed so you're just left with the tube in your airway. And we will then tell you, it might be a bit difficult to speak to us, but we'll just ask you to put your thumbs up and you're usually comfortable at this point. After that then you will be given a full general anaesthetic straight away for your operation. So that's the only bit that's done while you're awake. You will be fully asleep for your whole operation and if you'd like to see an awake intubation being performed, we've recorded a video on a real patient for you to see what it looks like and you'll find the link below in the show notes.

Pam: It sounds like a very straightforward process, but tell me Robbie, will it be painful?

Robbie: No, it's actually not painful, but you may feel some pressure in your nose and a slight discomfort as the camera passes in. It is common for patients to cough when the local anaesthetic is sprayed in the back of your throat. This sensation will be less and less as time goes on as the numbing medicine gets to work. Because your throat will be numb, you may

feel like you can't swallow temporarily. The purpose of the local anaesthetic is to avoid pain and to minimise discomfort. Studies have shown that this procedure is well tolerated by patients.

Julie: Thanks again Robbie. And now Ellen, perhaps can you tell us, are there any risks involved with this awake intubation process?

Ellen: Now, it's very important to remember that awake intubation is probably the safest and the least risky option we have to manage your airway and breathing for an operation. However, as with all procedures, there are some risks. We will talk about this in terms of what happens commonly, uncommonly and some of the much rarer things that can happen. Coughing happens to most people at the start of the procedure. It is quite normal to cough a little bit as the camera scope reaches the back of your throat and your vocal cords. Don't worry about this. The anaesthetist will often spray a bit more local anaesthetic at this point to reduce the coughing and we'll wait till it takes effect. About one in three will also need an extra pass of the scope, which means the team will have to start again from the beginning. But your airway is numb at this point, so you shouldn't feel that much. And this is because the equipment might need to be changed or adjusted. As mentioned before, with all breathing tubes, it's common to have a sore throat, especially if it is a long procedure. Your voice may be a little hoarse afterwards and your mouth may feel a bit dry. These things should resolve very quickly within hours, max a day or two. Another uncommon thing would be when passing the breathing tube it may cause a nosebleed, which usually can be stopped with some pressure or applying some special medicines directly to the nose.

Robbie: Yeah, and uncommonly as well, a patient may end up getting too much sedation, which can make it more difficult to keep the oxygen levels up. Rarely, a patient may have an allergic reaction to the local anaesthetic or receive too much of it, causing local anaesthetic toxicity. Another rare thing would be inhalation of stomach contents during the procedure. But again, if we think there is a high risk of stomach contents coming up, awake intubation is in fact the safest option that we have.

Pam: And so what happens during the operation?

Ellen: Once we confirm the tube is safely in your airway, you will go off to sleep straight away. The surgery then proceeds as normal, just like any other asleep procedure would.

Julie: Great, that's really reassuring. And can you tell us what happens then after the operation?

Ellen: Now the breathing tube is generally removed at the end of your operation. When you wake up, you might be aware of the tube, but it'll be numb, so you'll tolerate it very well. And it's important that you can breathe for yourself and cough before we remove the tube. And often some people will not even remember this at all. Remember your nose, mouth and throat may still feel numb afterwards, and you will not be able to eat or drink for a few hours until you regain normal sensation back in your mouth. And this is to avoid any problems with swallowing.

Robbie: Speaking of what happens after the operation, here are some excerpts from an interview with Eamon, a patient who recently had an awake intubation. And this is how he found it.

Robbie: So first of all, if you remember, we put on all the monitors, we popped in a drip and then you got a bit of sedation. Do you remember all that part?

Eamon: I do.

Robbie: And do you remember getting the spray down the nose?

Eamon: Yes.

Robbie: And it didn't taste too bad, it was okay?

Eamon: A little bit stronger.

Robbie: A little bit stronger, is it? What would you describe the taste?

Eamon: Now, I wouldn't say unpleasant. It was just, it was uncomfortable, slightly uncomfortable.

Robbie: Slightly uncomfortable. Okay. And then we did a little bit more sprays down the back of the throat.

Eamon: Yes.

Robbie: Did you have much coughing with that?

Eamon: No. No.

Robbie: No. Just a little bit, wasn't it?

Eamon: A little bit, yeah.

Robbie: So we waited a bit of time. Once we were happy that you weren't feeling too much, then we passed the scope through the nose. Do you remember that part?

Eamon: I do.

Robbie: And how was that for you?

Eamon: Well, obviously, it was a little bit more uncomfortable because the anaesthetist was saying it's a little bit tighter, and she did tell me in advance, and then obviously if my nose was a little bit tighter with a bigger scope, that was going to be a little bit mor uncomfortable.

Robbie: Yeah.

Eamon: But I got through it.

Robbie: And then if you remember, so we then got a view of the voice box, of the vocal cords, and then we passed the scope through then, and do you remember, did you have much coughing when we did that?

Eamon: No.

Robbie: No. And then once we got the scope into position, then we passed the breathing tube over the scope. Did that cause you any discomfort?

Eamon: A little bit, but not very much.

Robbie: You wouldn't say it was too bad in the experience having that done?

Eamon: Definitely not, no.

Robbie: And then if you remember, we attached the ventilator on then as well.

Eamon: Yes.

Robbie: And then we checked that your breathing was okay, and then you went off to sleep.

Eamon: Yes. I don't remember much after that.

Robbie: Don't remember much. That's good. That's what we want.

Eamon: Now, I tried to talk at one stage, and you might have said to me, Eamon, don't talk in.

Robbie: Yeah, you won't be able to talk. So once the tube goes through the voice box, through the vocal cords, it's blocking your vocal cords from making the sounds, but you could still breathe. Was it uncomfortable to breathe at that point?

Eamon: No.

Robbie: It was okay?

Eamon: Yeah.

Robbie: And then you went off to sleep? Okay. Any further comments or anything you want to say about the whole experience?

Eamon: Just, I can't be any more complimentary.

Robbie: Lovely. Thank you so much, Eamon.

Pam: That's a great account of how awake intubation works. It's great to help prepare patients before they come into hospital to know what to expect. There's a lot to take in there. So what would be your key points for anyone who might be scheduled for an awake intubation?

Ellen: First of all, I would say we're only doing it because it's safest for you to have it done this way. Secondly, we do lots of them. The patients tolerate them very well. It's when we explain to you the whole time what we're doing, it'll be comfortable. You will feel a bit numb, but it, and we also explain to you that that's the only bit you're going to have done before the surgery. You will be fully asleep for your surgery. We also, remember, give you a little bit of sedation during this procedure, so it'll be very comfortable and we will be chatting to you the whole time during it. And it only usually takes a few minutes. So nothing to worry about. There are videos as well in the show notes, which will help explain exactly what we do.

Julie: What a fantastic episode. And thank you so much again to our Airway Specialist, Professor Ellen O'Sullivan, leading international expert in awake intubations and Airway Fellow, doctor Robbie Hollingsworth. And of course, Eamon for his account of an awake intubation. Thanks for tuning in to this episode of Operation Preparation. We hope this has given you some valuable insight into how and why we do awake intubations. Remember, if you're curious, do have a look at the video linked below if you'd like to see one being done.

Stay tuned for the next episode on 'Your Heart Surgery'. And in this episode, you will hear Dave's patient story.

(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.