RICH COHEN: OK. Well, why don't we get going here, for the sake of time. I appreciate everyone joining. First off, as an introduction, my name is Rich Cohen. I am the director of marketing for the Endoscopy Division of Boston Scientific for EMEA. It is my pleasure to have you here today to be a part of, really, a very important webinar on COVID 19, and specific to endoscopy strategies, and with our special guest speaker, Dr. Srisha Hebbar, from the University Hospital of North Midlands, and as well as Royal Stoke University Hospital.

So just a couple of quick things. So one is just short housekeeping. We would ask that, first of all, you should be on mute. If not, please mute yourself, so that we can have an uninterrupted presentation. But there is an opportunity to ask questions during the process. Dr. Hebbar is going to present.

And then I will conduct a Q&A. So you can submit your questions if you go to the bottom of the screen, and just click on the Q&A. You can write them as we go. And I'll be collecting them during the presentation, and will moderate that with Dr. Hebbar at the end. So please feel free to do that. We look forward to that.

Second of all, just as a quick introduction, we are-- for Boston Scientific, we're trying to do our best to help out our customers, our hospitals, our patients in this real crazy time of crisis around COVID 19. It's unprecedented for all of us. We're all in the same boat. And so we are trying to be a great partner during this time.

And to do so, we're doing a number of different things, so one of which is, first and foremost, is that we're doing everything we can to keep our employees safe. There's a number of ways we do that. We're following strict guidelines. But if we keep our employees safe, we keep our communities safe. And it's the fastest way we can flatten this curve to get this all behind us.

Second of all, we are working very actively on what I would call supply chain stabilization. So we want to make sure our manufacturing facilities around the world are up and running, and stable, and continue to provide supply of products to our customers in this time of need, and especially, I think, as we get out of this, we expect a demand. And the last thing we want to do is run out of product for you.

The third piece is, there is a lot of activity within Boston Scientific around securing PPE equipment, as well as ventilators, which is not a normal product for Boston Scientific to produce. But we have a lot of talented engineers and great manufacturing facilities, and there's a lot of work behind the scenes to help out at a total corporate level, as well as the local level.

And then I would say, lastly, there's a lot we're trying to do from a training, education, and support perspective for our customers in this time of need, albeit we're looking at all sorts of digital, virtual, new channels to be able to do that because we want to go back to the first point, which is to try to keep everyone safe and to flatten the curve. And I think this is an example.

So while this has nothing to do with any of our products or technologies or procedures, this is about the business of endoscopy, and things that we can do strategically to understand and make ourselves better during this COVID 19 situation. So now I'm going to turn it over to our guest speaker, Dr. Srisha Hebbar.

He stated that he's from Royal Stoke University Hospital. He's been there since 2013. He is the clinical lead for the endoscopy services and the endoscopy training lead. And the hospital itself is a regional endoscopy hands on training center. He is very active within the British Society of Gastroenterology-- BSG.

He's a member of their Endo Committee. He is the lead for the BSG national conference program. And since January, he was named the BSG endoscopy secretary. So he's heavily involved in training, heavily involved in the endoscopy business, as well as in British societies. So we know and hope this can be very educational. Dr. Hebbar, without further ado, let me turn it over to you, and just thank you very much for being here tonight.

SRISHA HEBBAR: Thanks for your kind introduction, Rich. So I'm going to talk about the endoscopy strategies in UK, and also in, locally, in our hospital. So I am based at Stoke-on-Trent, and this is in the middle of England. The topics which I'm going to cover today are the journey so far, Where we have come from in the last three weeks, and also, the challenges which we have faced and the strategies which we have employed in endoscopy, and the support we have got from the national societies, and also from several people and several organizations all around in dealing with this unprecedented crisis which we are in.

So the number of cases in UK has been increasing since early March. We are sad to hear that, in fact, as expected, our cases have gone up to about more than 400 today. So the first week or so, we were more observing what's happening with not reacting. We were also still continuing to focus on organizing our international symposium, which we are planning at the end of the month.

But then on the 11th of March-- again, number of cases started to increase-- there were reports coming that the UK will peak in about a couple of weeks' time. And that we could just sit behind-- we had to do something to decide what we do and how we function in the coming weeks. So we postponed our symposium. And so as BSG also postponed its national conference, which was scheduled for June, as well as many other international conferences.

So all our energy was focused on making-- strategizing how we function over the next month's-- coming months and weeks. What also happened in the same weekend was this important document which came about from Repici's team in Milan. And this was very, very useful. They are in the middle of the crisis, bearing the brunt. And in spite of that, they have produced this useful document which went wild.

And people all over the world-- and has helped them to strategize how to function in endoscopy. So we based this document, and use this, to produce our own local document over the weekend to see what we do with it. And then we came up with a three stage process. We state that in stage one-- which we implemented immediately-- is that we have to cancel lots of all the surveillance procedures, which has been booked in the next few weeks or even months.

So I think in the stage two, once we have done that, we have to book only those patients who are urgent or suspicious of cancers, and do only those therapies which is going to make an immediate difference to the patient's care. And then in the stage three, when we are really struggling, we need to go into an emergency urgent mode, where we stop everything and do on a daily basis, which will make a difference to the patients.

So we also adapted Repici's document, and then started calling every patient before they came to the procedure, asking the symptoms. And if they had any symptoms which was suspicious, we canceled the procedure. Even when they came into the endoscopy unit, we again started assessing them-- checking the temperature, and doing only the procedures which we think was safe. But we know that has changed now.

Again, regarding the PPE, we initially adapted Repici's document. And our initial PPE guideline was therefore, upper GI procedures. We were still using surgical masks and the other protections, like disposable gowns, gloves, and so on. And hence, PPE-- or what we call as an high risk of the COVID positive, or the suspected cases.

But again, the definitions have changed in very short duration of time. Well, while we were doing those preparations, and where we were moving from stage one to stage two, but there were a lot of centers down south in London, and few in West Midlands that quickly where they were forced to go into stage three, wherein, they were only doing emergency endoscopy. They didn't have the time to plan the way we had, and envision as to how it should be in the next coming weeks.

They were just forced to go into the emergency mode because of the burden of the cases that were coming across. What also helped at this time was the strong leadership in the BSG, in the endoscopy committee, by our vice president and also the BSG president, to produce these documents in a right time-- very timely one. So in a crisis, what you need is a good guidance and good leadership.

So they produced this document on 14th of March, and they said that fit screening-- which is the bowel cancer screening in UK, where they all sent the stool test for fit, and the bowelscope-- this is, again, under the national program, where all individuals who are above 50 are offered a flexible sigmoidoscopy.

And these should be stopped immediately, because these are well patients. The pick up rate with the bowelscope is low as well. And then we need to limit the amount of people who come into the endoscopy unit. The BSG guidelines also [INAUDIBLE] that all the two week wait referrals-- that is, in UK-- so we have what's called the two week wait wherein the GP's refer-- general practitioners refer patients to the endoscopy whom they think is highly suspicious of cancer directly for an endoscopy.

And these ones-- and has to be vetted carefully on a case by case basis, and also [INAUDIBLE] that all elective and non essential endoscopy should stop immediately. And we have to make a decision as to which one needs to continue, which cases we need to have discussed further before putting an endoscopy for, and which one we can defer until further notice. This was very useful for lots of units to make a decision to stop bowelscope.

Because nationally, the NHS-- what we call as National Health Service England-- have still not taken decision to stop this. But locally, hospitals could champion and stop the bowelscope and other routine surveillance procedure based on this document. So it also helped us go very quickly to stage two, wherein we're only being those procedures which were urgent, were highly suspicious of cancer.

So in England-- so where general practitioners and the patients comes to them, and if they have high risk upper GI symptoms-- there is a good pathway with these symptoms, where they fill it in, and they go directly for a gastroscopy, which we need to offer within two weeks' time. So these patients are not seen face to face in the hospital.

So they're only seen by the GP, and then they're directly referred endoscopy. But this is based on the fact that they look into patients that have had dysphasia, or if they have more than 55, and other symptoms like dyspepsia, reflex symptoms, and if they've lost about more than 5% of weight. So they are sent over as a two week wait gastroscopy.

And without assessing them anything further, we direct you to the endoscopy. But again, we know that with this, the pick up rate for cancer is about 2% to 3%. But we couldn't do the same way during this time. So we went ahead and started doing telephone consultation very quickly on all of them, and decided which patients needs to come in immediately, which ones we can cancel based on the symptoms [INAUDIBLE] after telephone consultation, which one we can defer and say needs to be urgent once the service resumes, and which one can be deferred and routine.

But we need to have some kind of a safety netting for them, so we said to those patients who we cancel, if your symptoms come back, please go back to GP in about one to two months' time. Again, don't contact them unnecessarily. Again, they'll be overburdened as well. And we also have a safety net once the service resumes-- hopefully, not too long-- we don't know how long this will drag on for.

We need to contact all these patients again, and reassess the symptoms, and then decide whether our management was right, or whether we need to upgrade and get them very, very quickly. So there's also-- for the colorectal-- there's something called straight to test. Again general practitioners, where the patient come in and have a colorectal symptoms. So they fill the paper or online, and send the referrals in.

And then somebody-- a consultant or a dedicated person-- will look into that, and will triage them and say whether this patient needs to go to the clinic or can directly for investigations. So still a lot of centers in UK don't offer a stool FIT test-- there is a fecal immunochemical test for patients who have bowel symptoms.

This is only offered for, at the moment, for screening patients. So another center still didn't have it for these kind of patients. We were still using colonoscopy or a CT, or a CT chronogram. For the last four months, we were trying to get the FIT test for these patients, but the crisis helped us to get it in about 10 days' time. So we immediately got this, and then changed our pathway, and said, the majority of the patients should have a FIT test or a CT [INAUDIBLE] or a CT before they go for a colonoscopy.

Again, we tried to triage these patients in this way. Again, BSG Endoscopy produced another document very quickly. And they gave it rationale as to why this-- what was called as a two week wait direct access endoscopy. And they should be stopped immediately. Again said, the [INAUDIBLE] of cancer is only very low-- 3%-- less than even with the bowel cancer screening program, which is about 8% to 10%.

And they concluded that very few patients will come to harm from a pause of three months. And in fact, the harm might be more if we get more patients into the endoscopy and increase the risk of community infection to the staff and also the patients. So with this document, they also mentioned that the GI procedures are a result generating. So it's important we limit the number of procedures we do.

But during the second week or so, again, the anxiety level among the staff was going up and down. The social media didn't help with that. So we had followed the guidelines, depending on what evidence we had. And the same time-- the first week or so that the amount of the PPE availability was also limited-- so it was a difficult time. And also the anxiety level was up and down, and especially by seeing somebody in South Korea were wearing a full body space suit for a sigmoidoscopy, and different [INAUDIBLE] being available.

And even in the same-- different hospitals in neighboring places-- and each one was doing differently. So again, BSG came-- the society came up with another guideline very, very quickly, and said that all patients were upper GI endoscopy should have enhanced protection, which would include a FFP3, or what in other places is called an N-95 mask. Or for the colonoscopy, this is, again, slightly controversial at the moment, because more and more evidence is coming that it is also [INAUDIBLE] result generating.

But we had to go with the evidence we had at the time. And the recommendation which came out was that if only in those patients who scans [INAUDIBLE] as high risk or confirmed COVID positive, then they should be having enhanced PPE, otherwise it should be the standard PPE. But for all of the upper GI endoscopy, it should be enhanced PPE.

In fact, the guideline-- which is this-- is more forward than the other guidelines, as well. So in fact, in the protection wise, we suggested that a part mask is not the only one for protection. So you should have a long sleeve gown, the gloves, the [INAUDIBLE], the hairnet, the shoe cover, and a full visor for the eye protection, as well, which is also similar in the standard PPE-- apart from the mask.

Well again, a lot of people who might be listening to this might not have a good access to the FFP3 mask, which is also the same here as well. We're still struggling with the mask at the moment. Sorry, but this is-- but interestingly, in the webinar, which Repici's-- it was a very useful webinar the last week from Dr. Repici. And he's-- they've looked into the about 20 papers, which has compared the surgical mask to the FFP3 mask, and have selected about nine papers of that.

And the impression was that there are similar efficacy of surgical masks to the FFP3, provided that you have taken measures of hand washing, the gowns, and gloves, as well. But again, at the moment we have to take as much precaution as possible, and use the right mask. But this was at least relieving to know that if you don't have it, probably what you're doing with all of the techniques, might offer significant protection.

Interestingly, just today, this has come out from the Joseph Sung's unit. This has come out as an abstract, but will be a paper very soon in *Journal of Gas Enterology and Hepatology.* Again, this is a very good guideline which they have produced, and again here, they mention that for colonoscopy, it's preferable also to go for a higher protection with N 94 equal. And they still classify this as a non high risk.

But they've said for FFP3 N 95 preferable. But other ones are similar to what the BSG recommendation is. So where we are at the moment, and locally in our hospital, we are, at the moment, in stage three. This is more in preparation, that in a week-- in days' time-- I think we're already there-- that our case law will significantly increase. And already, there is staff sickness. So the-- 30, 40 people are away this morning in endoscopy.

So there's no way we can run business as usual. So what we are doing at the moment is that we're only [INAUDIBLE] those where there is upper GI bleeding who we think will definitely need therapy. There's no point in doing those we think that probably, they have some melena. They could be having an ulcer. But their symptoms have settled down. [INAUDIBLE] has come down to normal. So we're not doing them at the moment.

Upper GI foreign body-- obviously, yes. Any obstructing GI lesion which requires stenting, and in the hepato pancreato biliary, those who have [INAUDIBLE] need stentings, or cholangitis who have [INAUDIBLE] collections, which needs draining. Again, in urgent inpatient-- this is quite useful to help discharge of the patient. So nursing homes will not take patients with an NJ tube.

And if they need PEG, we are going ahead and doing the PEG procedures, so that we can facilitate discharge. And also acute volvulus-- which in fact, we had the first case with a COVID 19 patient last week, with acute volvulus. The ones which we need discussions-- these are the difficult ones. Because we are in a situation now-- we are not completely in the hospital [INAUDIBLE], where we are in emergency mode.

We are anticipating more cases in coming days. The cancer network in the region-- also in the country-- are still saying that we should go ahead with the cancer surgeries and see urgent cancer referrals. But there's only so much we can do at the moment. So it's important that we have to look at those referrals in detail.

Our decision making have to take into consideration whether, in your center, the cancer surgery is going ahead. And also, we're also going by, yes. I will diagnose a cancer today by doing the endoscopy. But can you guarantee me that you will be doing the surgery within the next two weeks' time? If you're planning for four weeks, I don't think you should be doing it right now, because you put the patient more into anxiety by doing a diagnosis when surgery might not happen in the next few weeks' time.

So it's a very complex decision making. So we have to take every case by case. And complex polyps, high risk lesions-- if you leave it for three months, they might develop into cancer. So those ones, we might, again, strategize, and say which one needs to be done immediately. You can come across those cases now, they have come and bled. And now you have banded them. But will you leave them again, or come back for another bleed, or whether you get them back again in weeks' time and continue the banding.

So those kind of decisions still has to be made. So what about the patients now, who have COVID 19 positive? So now we're [INAUDIBLE] thinking about the patients who were-- majority of them-- now the definition of low risk and high risk is gone. So all of them are high risk now. Because we know that there are many asymptomatic, or what call them, unknown cause COVID positives.

But if you have a confirmed COVID positive, then you at least have a strategy as how you're going to deal with them. You should have, in your own endoscopy unit, which way the patient will come from, in which room you're going to do it, how will they go back, where will you consent, and so on. So we have decided that we have a-- we are fortunate to have one negative pressure room, which has been used for bronchoscopy.

So we'll do all the confirmed COVID positive in that room. And that also has got very close to one of the exits to the endoscopy. So the patient will come through that, will go directly into the room. And it will be more of a verbal consent, and have it with minimal furniture and equipment in the room, and so on.

Screening procedures-- we don't have a choice. It has to be-- we do in one specific room, which is not a negative pressure room. Many of the hospitals or centers, even in UK, do not have a negative pressure room. So we have to work with what we have. So this is the first case, which we did last week, where a patient was COVID 19 confirmed positive.

And it was actually quite symptomatic 77-year-old. And the patient had acute volvulus, and was quite dyspneic. And so we had to go and do a decompression. So we did this video so that we show all of the staff what the pathway is, where the patient will come from, what must the patient-- the porter should be wearing and the patient should be wearing. And also we also did this to show them how to don and also doff the PPE.

So again, this one is based mainly on the [INAUDIBLE] document. In fact, the collaboration has been extremely impressive. So the [INAUDIBLE] document came on about the PPE. And this is a poster, which has been designed by Dr. [INAUDIBLE] from US, who's the editor of the video GI

And they have produced these posters of how to wear and how to remove the PPE. And they have been circulated all around. I think this is-- we have put this up in our rooms. And it helps the staff endoscopist to know the steps of the PPE. So we are working on the principle that we need to have adequate precautions. And we have to minimize the risk significantly.

We are in a difficult time at the moment. It's important we support each other and work together. There's no denying the fact that the selection of case is the most paramount. That is the best protection-- not being in endoscopy is the best protection for us. So it's important that we only choose the cases which we think will make an immediate impact the patient's management.

We also have to take into consideration that the use of PPE is, we will need more of it in the coming days. So there is also another reason why we need to use it considerately. We'll definitely sail through this, but it needs time. Our world has definitely turned upside down.

But any crisis will come-- there'll be positives to that. The positives with this crisis is that our way we work will definitely change significantly in the coming months. Once we have sailed through all this, we have to keep our eyes and ears open. We'll see the-- innovations happen when there's a crisis.

Similarly, endoscopy-- what we have found already is that the direct access endoscopy, which is where the telephone-- where the patients are sent directly from the GP's-- we need to work differently. We need to triage them-- all of them-- by telephone, and then decide which one we do. Because we already-- we are seeing that 60% to 70% of cases which referred a direct axis-- we are either canceling them, or saying that they can be deferred.

So we need to look at it differently. All the patients for the colorectal might need a FIT or a CTC, majority of them, before they come for colonoscopy. So we haven't been doing too many endoscopies. So this gives us a bit of a thought process to look into, which one we actually need to do, which one we can make a difference.

I know there are trainees who might be around, might be feeling a bit of a dejected that, while they might not-- they're not receiving an endoscopy training. Take this as a challenge and look for opportunities. One of the opportunities is to get involved in this decision making, and see which one actually needs the procedure. And that itself is a learning things in the next coming months. Thank you.

RICH COHEN: Dr. Hebbar? Hope you can hear me. That was outstanding. Thank you very much. If this was a live audience, there'd be a nice round of applause for you. We'll have to do that virtually. Really appreciate it. It was just excellent information and really well done. So thank you so much. We do have several questions.

And I think we have a good amount of time. So if you're good with it, I'll just start firing these off and let you answer them. And we'll do as many as we can, if you're OK with that.

SRISHA HEBBAR: Yes, please.

RICH COHEN: All right. So first question for you is, what is the procedure of disinfection of the material after an upper endoscopy in a COVID patient? So I want to make sure I read that right. I think it just-- are you following, I guess, the same guidelines for a COVID patient-- either disinfecting scopes and reprocessing of anything?

SRISHA HEBBAR: I think the disinfectant and the reprocessing, if I'm right, is the same for any-- I think whatever we've been doing at the moment in endoscopy is quite robust cleaning. So the information which was given to us was that being that the same way as what we do for every other endoscopes.

RICH COHEN: OK. What about diarrhea as a suspicious symptom?

SRISHA HEBBAR: Yes. I think there's more and more evidence, I said, coming out, that diarrhea is a symptom of COVID 19. And again, more and more evidence coming out about the fecal auto transmission of the COVID 19. And that's why I can understand when people say that we should be doing all procedures, including colonoscopy, with full protection. I can totally understand that.

But again, all the guidelines have been keep updating as more evidence comes through, as can all of you see that in the ESG European guidelines-- which came slightly earlier than the BSG guidelines-- in fact, they were-- started [INAUDIBLE] differently as a low risk and high risk. But in the BSG guidelines, we say all upper GI endoscopies as should be having FFP3 or N 95.

But then I can see the new document, which has come out from Joseph Sung's. They are saying that preferably, all colonoscopies should be having that as well. So I think the more evidence come, they might be saying that we should be taking the same protection for every endoscopy.

RICH COHEN: Next one. Do you recommend negative pressure rooms for doing urgent endoscopy?

SRISHA HEBBAR: Well, I think it's-- recommendation is different. But it's the most important things about availability. So we didn't put that in the BSG guideline, mainly because majority of the centers in UK don't have a negative pressure room. So it's not possible. And also, majority of your significant upper GI Bleed, which we do-- we do it in theaters in UK, wherein we have anesthetists who tube them and so on.

And again, in [INAUDIBLE] they're in fact, positive pressure rooms. So you don't have any negative pressure rooms there. So yes, if possible, you could do it in negative pressure room. But how many units have it? They don't.

RICH COHEN: That's a good point. This is a good one. Would these PPE recommendations continue even after the curve flattens? Would these not be standard PPE for GI endoscopy as standard anyway, since we do not know how this virus behaves. I think this is an interesting one of just what do we think the world of GI looks like post COVID 19?

SRISHA HEBBAR: Yeah. I think that there's a [INAUDIBLE] bit. I think the way we work has completely changed. And unfortunately, it is going to be changed, and it's going to remain for a long time. But again, that's going-- only time will say in every country how long this is. So depending on the impact they have. It's very difficult to plan for that at the moment.

But as I said, now we have said that we'll be doing only emergency endoscopy because of all the subtleties [INAUDIBLE] described for the PPE, the time [INAUDIBLE] have been changing over, and all of that. But now, if this drags on for months together, all those patients can't be waiting.

So your definition of what emergency goes on expanding. So we will end up doing more procedures. And then, with all this protection, we need to continue for a long period. It is going to be a difficult task. So I think with this, also, I think as I said, BSG will also be producing guidelines on that as exit strategy as well, with our-- that's been the talk. That's been the talk from our vice president, as well.

RICH COHEN: OK. This is another interesting one. What about patients who've had an intragastric balloon that have passed the six month duration, bearing in mind, there are patients who stayed with it for over a year with no problem. Metabolic procedures and endoscopic metabolic procedures are growing. Curious on your thoughts on that one.

SRISHA HEBBAR: Well again, I don't do much of metabolic endoscopy. But again, some of which will be a case by case. If they can be postponed, kept captive for longer, than you keep it. But if you think that has to come out by a particular duration, then you might have to get them. And again, those cases, I presume, would be very, very minimal. So you might have to decided on a case by case basis.

RICH COHEN: When you scope a confirmed COVID patient, how much time do you wait before you start the next procedure in the same room-- of course, after a thorough disinfection? I guess I'm wondering, is it-- how different would that be, I guess, pre-COVID? Is it the same amount of time, the same thing? Or is it that much extra effort?

SRISHA HEBBAR: Yeah. I think if it's a confirmed-- if it's a confirmed COVID, I think-- now if you apply the same definition that every case is an unknown COVID and apply the same kind of deep cleaning, then we can't function. So it's only in those who are confirmed COVID. Then I think we are going to offer deep cleaning, and leaving the room for an hour after that, so that the aerosol disappears. But that sort of strategy at the moment only for confirmed COVIDs.

RICH COHEN: Interesting. Here's a good one. As a society, what is BSG doing to influence government increasing testing for doctors, including endoscopists?

SRISHA HEBBAR: Well, that's-- influencing testing for doctors. I don't think that's-- I'm not very sure about whether BSG is also going to-- looking into that aspect of it. I think just in the last couple of weeks, they've been really involved in lots of endoscopy related things. But I don't think they have approached that topic, as well, within the short duration of time. I might-- they might be, but I don't know.

RICH COHEN: Do you sterilize or reuse any part of the PPE, and if so, how? I assume this is coming from someone who has got a shortage, which I think is impacting different people globally. Curious if you've run into that.

SRISHA HEBBAR: I think the strategies which I've heard, and also, we do [INAUDIBLE] at the moment, is that if it's not a confirmed COVID-- so if you put on the FFP3 mask with the first patient, you keep it on for the whole of the list. And you can cover that with another surgical-- if it's more high risk one-- you can cover your FFP3 or the N 95 with a surgical mask, so that there is no splash on that.

Change your surgical mask, but keep the FFP3 for a long duration. But I also know that in other places, where they really are deficient, or have difficulties in getting even if FFP3, they keep that for a longer duration. So if they have two, they might wear that for the whole of the morning, and then put that in a sealed bag, and then reuse that.

But again, how much cross contamination happens with that? So that's a question as well-- if you keep doing that. But so the [INAUDIBLE] recommendation is that if you put it on for the first case, with a four hour list, you can keep it on if you've not touched it, and so on. But I think beyond that, then there is a [INAUDIBLE] cross contamination.

RICH COHEN: Is there-- are there any changes in the way that you manage bleeders on call?

SRISHA HEBBAR: Right. The bleeders on calls in UK is that there's a group of consultants who are a group of senior registrars, or the trainees who does that. And then you have a nurse who is also assist them. And then the only thing it's important has probably would have changed at the moment, is your case selection.

So everyone has to make sure that you're choosing the right patient. You should not bring a case wherein you go in and don't want any therapy. There's no point in you going, if there's an ulcer. We don't have to do a therapy. That's a wrong case selection. So we have to get more clever in making sure that our case selections are very good, wherein every case we do, we do some therapies and stop the bleeding.

The challenges we are facing at the moment, and that is that about the on call, is that the nurses and the doctors, again. So we have three tier doctors on call-- 1, 2 and 3. So the first one is sick, then the second one steps in. If the second one is sick, the third one steps in. The same with the nursing on call rota as well.

But then we are seeing that lots of nurses are going off as well. And then you come into the endoscopy unit, and then again, the challenge has also been keeping the communication between the endoscopist and anesthetist. So you do a case once in a while with the endoscopy. But the anesthetist are doing more and more intubation, and [INAUDIBLE] the COVID patients more.

So if you think that's not necessary, they've been, in fact, fighting with some of endoscopy, saying that, no. You should not be using an FFP3 here. This is a low risk. We need this for something else. So we can already see that that rationing, and all of that, it goes-- and in fact, it becomes more and more difficult as time goes by, when you have more and more cases, depending on where you are. A lot of challenges.

RICH COHEN: Do you have any plans to do post procedure follow up? Do you ask patients in seven days and 14 days, as per ESG position statement, after procedures?

SRISHA HEBBAR: No. We're not doing at the moment. I've seen that. No, we're not.

RICH COHEN: You touch on this a little bit, but you said-- we talked about cleaning protocol for known COVID 19 positive patients. Here's a question that says, aerosols can stay in the room for about an hour. How are we ensuring that this risk is mitigated?

SRISHA HEBBAR: You mean-- you mean risk of from the aerosol, which is--

RICH COHEN: Yeah. I think so.

SRISHA HEBBAR: Yeah. The only recommendation is that you don't close the room after the procedure is done. And then you don't do any procedure for an hour. That's only recommendation is there at the moment which I've come across.

RICH COHEN: A question from Italy, and it's specifically for ERCP. It's a little generic. Just says, what is your position on ERCP? When is it possible to remand or push out, and when is not? I didn't know if you-- whether you talked about procedures, but I guess specifically about biliary. Which ones have to get done and which ones would you push out?

SRISHA HEBBAR: I think the only [INAUDIBLE] we are doing at the moment is, we're definitely come in with in cholangitis, and who's septic with infection, or who have got a cancer, and has got bilirubin is high who needs stenting. And the procedures which can be pushed forward is that ones where they've got confirmed stones on the scans.

The liver enzymes are slightly deranged. But the patient is well and is not jaundiced. Then probably you can push it forward. Those are the ones which we are pushing it forward like a [INAUDIBLE] urgent. But asking the patient to contact immediately if develop any symptoms. The ones which you can also push forward, again, is an ampullectomy once, which are going to take longer time to develop into cancer, if they're not.

Again, they can push forward for a few months. And a repeat one. So you have put a stent in the bile duct. And they will normally get them back to take the stent out [INAUDIBLE] the duct in about three to four months time. And that might have to be pushed forward about six months or so.

RICH COHEN: It's an interesting one. We have heard of bronchoscopes being used in intubation. Will endoscopy departments get involved in this process? What are the pros or cons of bronchoscopes for intubation? I don't know if you've had to deal with anything like that so far.

SRISHA HEBBAR: No. I've not heard of that. So using [INAUDIBLE]. I didn't understand that, no.

RICH COHEN: What about-- here's a separate question on endoscope disinfection, I guess. Are you doing anything differently today in terms of cleaning process or protocols for the scopes themselves?

SRISHA HEBBAR: No. The same as for every other procedure. [INAUDIBLE] the guidelines has been the same as every other procedure because the one-- the process already there is quite stringent, the way they clean it-- so, at least here.

RICH COHEN: That makes sense. There's a question on PEG tube replacements. Are you managing that or are you programming it?

SRISHA HEBBAR: Yeah, again, that has to be case by case basis. So even though we say that we're in emergency mode at the moment-- so we have about eight to 10 patients in the wards at the moment-- we're waiting for PEGs, and they're blocking the [INAUDIBLE]. So if we don't get them-- get the PEG done, it will be difficult to get them out of the hospital.

So that is a priority. That is an urgent emergency ones. So we are doing those two lists this week to clear them. So again, that will be case by case basis. So PEG nutrition ones are really, I think, will be classed as an urgent ones.

RICH COHEN: This is an interesting one. Given endoscopy is such a moneymaker, how do you envision the NHS to recover from this? That's a difficult question to try to predict from the NHS perspective. But any thoughts on that?

SRISHA HEBBAR: Well, NHS's perspective-- the less you do, it's good for the whole NHS, as such. You could do with less procedures. So it's not-- because of the model which we work on. So in fact, I would say when we recover from this, we should be-- the only way we can get on track is to continuing this preselection very, very stringently again. We need to apply the same model what we're applying to make sure that we do the right cases-- the only ones which we're going to make a difference.

RICH COHEN: We get just a couple more questions here, which is great. This is going by very well. What about high risk for tumor lesions that probably need ESD, piecemeal EMR, or even full thickness resection procedures? Do you still proceed?

SRISHA HEBBAR: Again, this is a case by case. So if you have-- I just got an earful this morning. 48-year-old who looks like a high risk polyp. So if we don't take this out now, in three months time, this will turn into cancer. So that is the one which we need definitely do it now.

And the other one which [INAUDIBLE] was a 77-year-old who is wheelchair bound, that it's [INAUDIBLE] looking at the pictures, it looks like, very likely, there's going to be cancer. So I'm telling them, if you think this patient is suitable for surgery, and you have operation space, please go ahead and do operation, rather than getting the patient for endoscopy first for confirmation of cancer. So I think those kind of discussions we are having at the moment.

RICH COHEN: Makes total sense. I had a question around-- I love the three stage prioritization slide that you had. And I think it's a question for all of us, as we look to try to predict volume, and try to make sure, from a supply chain perspective, that we have what you need. If you look at the total number of procedures that you're doing-- I know this is difficult. You have uppers and lowers at ERCP West.

But where you are today, what percentage of cases do you think are actually being done of that total today? And I know Royal Stoke has not been hit hard yet, which is fantastic. And I hope it remains that. But I don't know if you could maybe compare yourself to that-- of some of the centers that are hit in London. Do you think it's about 50% of capacity, or 25%, or do you have any guesstimates on that?

SRISHA HEBBAR: [INAUDIBLE] significant. So it's-- I think probably in single digits or so. Because we already go into the stage three mode, because we will be hit in a few days time-- more, we know that. So 25,000 procedures we do on both sides So what we've got is a [INAUDIBLE] site. The other one, where we do diagnostic, that's almost completely stopped.

And here, we are mainly doing one screening list in the morning. But again, it's not full-- only two or three. Two patients who might need ER, CP or urgent [INAUDIBLE]. So we are putting on couple of inpatient list onto that itself. So almost like one or two less a day, at the moment. So significantly, compared to 25,000 procedures a year.

RICH COHEN: That is significant. Once we do flatten the curve-- and let's be positively assumptive that that's going to happen-- what does it look like for the patients that have been deferred and pushed out? What do you expect that to be like for your hospital to re-schedule them and get them back in to be treated?

SRISHA HEBBAR: I think what would have happened the moment, is that a lot of patients are not going to the general practitioners as well. We can only see the number of referrals coming in has suddenly dropped, because, obviously, they're self isolating. So they might be sitting in their homes. And those who might, only when they become really ill might turn up in the hospital, when it completely opens-- when we say that everything's completely hunky dory, everything is fine-- the number of patients who are coming to the hospital at the time-- coming to the GP-- general practice, will be significantly high at that time.

But we won't have an immediate-- then for us to do at the time, is that re-look at all the patients waiting on your waiting list again, and re-look at them again, and say, contact the patient by telephone clinics. And again, decide to strategize there, whether some of them can be discharged, or on your deferred routine list, or defer urgent, whether some of them can be pushed back to defer routine.

Do we need to do all the strategies as well? And it's also important that some of them we have canceled, we are keeping all the log of patients in the cancer list as well. And one of us will be calling them once-- after three months just to make sure they're OK, and they didn't have any symptoms which require an endoscopy. So I think there's a lot of work to be done if you have to do it properly and have a safety net on these patients. It's going to be difficult job.

RICH COHEN: I can imagine. We're all in the same boat to try to get back to some sort of sense of normalcy. So doctor, a last question for you, and we'll let you get wrapped up and back to your evening. This is a little bit selfish, but what are your expectations from industry regarding either training, education, or support during this time? How would you want to hear from companies that you normally work with? How can we best support you?

SRISHA HEBBAR: Well, I think you're already doing a great job doing what you're doing at the moment. And you also sent some-- I'm getting some text messages from every now and then from industry partners, saying if you need any help, you need any equipments and so on. I think that's the best we can do at this moment, to be honest.

With the limited number of procedures we are doing, I think, probably, your role will be quite significant when the floodgates open. And a lot of endoscopy nurses and will be deskilled to some extent. So they need to be-- need a lot of reskilling and so on. I think you'll be very, very busy in coming days.

RICH COHEN: I agree. So listen, we're coming up on our time here. I just want to thank you very much again, Dr. Hebbar. This has been fantastic. It's educational. You've been very open. And to do this in the middle of the madness that you're going through at your hospital-- and I'm sure that's happening-- things that are happening at BSG and on your home front as well. So, just on behalf of all of Boston Scientific, and everyone that joined here tonight, I really want to thank you for doing this. Thank you so much.

SRISHA HEBBAR: Thank you, Rick. Thank you, everybody. Goodbye.

RICH COHEN: Right. Have a good night, everyone. Thank you so much.