Full Episode Transcript

With Your Host

Dr. Tarun Agarwal

Ep # 14: A Conversation on Dental Sleep Medicine

Welcome to *T-Bone Speaks* with Dr. Tarun Agarwal where our goal is to change the way you practice dentistry by helping you achieve clinical, financial, and personal balance. Now, here's your host, T-Bone.

T-BONE: Alright, everybody welcome to another episode of T-Bone speaks I'm your host T-Bone, Tarun Agarwal.

And today, we have an absolutely wonderful and knowledgeable guest on - Ms. Pat McBride from California, from the Oakland area. Actually we were on talking earlier about her wonderful Golden State Warriors and she has a reasonable knowledge of basketball quite surprising quite honestly and for those who had listened to me speak or listen to my podcast know that I believe the treatment of sleep apnea through a dental practice for obstructive sleep apnea is a very, very large opportunity in the practices and Pat is an expert in dental sleep medicine and much beyond that.

But today we want to focus on dental sleep medicine and get a prospective from a team member and how they get involved in sleep and how they can be very instrumental in growing your sleep practice.

So, Pat, welcome and how are you doing?

PAT: I'm doing great, thank you very much.

T-BONE: Well thank you so much for having me on, believe it or not gang, this is the first time I've ever met Pat. We were introduced by a mutual friend Holly Brian and she simply said Pat is somebody I need to know and she probably said the same thing to Pat and probably left her that and then we were left with our own devices to figure out what we can do together and so I don't know a whole lot about Pat other than that she knows a boat load about sleep medicine.

And so Pat why don't we introduce – why don't we begin by just letting the listeners know about who you are briefly, who you are, what you do and kind of how you got there?

PAT: Ok. So I spend rather securest path to get where I am. I spent the first flow shall I ever say twenty years of my career. originally I'm going on Teachers' Training as a teacher and I was married to a GPIS MD who had a Reconstructive Dentistry practice and [unclear] fell apart one summer during vacation for me from school and I ended up kind of drop in the middle of it trying to figure out what was going on there and how to make it work and this is just an individual that Scott was known everywhere and most of the dental sleep medicine people know who he was and what he did and very quiet, silent, very mindful person.

The practice was very mindful in terms of the way it was centered; very patient centric early precision medicine we did there and so I kind of dropped into it had to learn it on the hop, had a quick go through training to get you know RDA get extended licenses so that I can take films and help with that and then I went to resuscitory medicine training so that I could be able to interpret some studies as well as from helping the lab and make sure that the patient's got out of the finish line that we were treating.

It was very important to him and became apparent to me very early on that patients with disorder breathing of sleep have many levels of anxiety related to the illnesses and having somebody who can reach out to them across medical and dental that cross that spectrum and have this one person who can reach to them and walk them through the process as well as walk them towards wellness was really important for our longitudinal success. You know treating patients is one thing to get them and either CPAP will get them into an implants or orthodontics revision because we know very often that this

people have had retracted orthodontics as kids that trauma on the floors you know once you take the teeth out there's the tongue and everything goes back because you close the space where it once live. So we were looking into revising orthodontics and then occasionally referring for bimaxillary surgery.

That kind of process is where I ended up landing and then I did that for you know, until about six years ago. and then you know then we went completely hospital based and I spend most of my time in respiratory medicine and after that about five years ago the trajectory of my life really changed.

I was invited to work back at the Indian Center in New York and the Gulf Center and revised their sleep medicine programs and at the same time I was invited to lecture at NYU which is brought me back to teaching and which I do a lot of now and that's really where my love of patient care is a huge part of what I do cause if I wasn't in the clinic with the patient I couldn't bring that as a reality to the students who - it is my most perfect wish that the young students embrace airway as a philosophy.

Airway is a means by which we understand why these [unclear] happens and what happens with people so that we, they are where they are when they get that, then how do we find a methodology for walking them towards where they need to be. And that's pretty much what I've done and a couple of years ago for about two years by now when my late husband's schoolmates actually at year school of dentistry had a headhunter hunt me down and say where is this person and what is she doing now and so I ended up out here in the West Bay in California in Oakland Hills.

So yes, I'm around the good football team and good basketball teams [crosstalk] Right now hey I'm a 49er I'm a total 49er fan

even though we had our problems and but we've been Warrior fan and Oakland base baseball so I'm here. I drive thru the tunnel out towards Mohammad Creek which is a little ways away and one of the most progressive forward thinking hospital is John Muir, embraced our philosophy and have brought me into their pulmonary – into the sphere of their pulmonary department and allowed me to train the people there and I worked with the physicians in Pulmonology and cardiology, psychiatry, all of these doctors to understand how sleep disordered breathing affects the patients that are coming in and returning to then clinic over and over again with morbidities that are directly related to sleep and how they can recognize that and understand how they can get those patients into treatment for their sleep which is going to enhance the therapies' that they are doing for their other medical problems.

So that's pretty much where I am now. You know that's pretty much what I do.

T-BONE: Alright so now you work with Dr. Mike Salik in California and I believe you're also doing some work with some hospitals there as well?

PAT: Yes, John Muir hospital and then I teach at the Mike Center back in Columbus Ohio. and I work - I'm on the Board of Directors for the AAPMD which is the American Academy of Physiological Medicine in Dentistry and I've been on their board for about four years now so I do a lot of teaching for them all over the country and then I've also been down at the University of Sydney with Derek Mahony teaching.

T-BONE: But what is you're technically- what is technically what are you in dentistry are you a dental assistant your office personnel, your hygienist what are you?

PAT: I started as RDA in dentistry and then resuscitory medicine I have two CCST and RGSPT

Ep # 14: A Conversation on Dental Sleep Medicine

T-BONE: What are those things; those just letters to me.

PAT: There's a Rescusitory medicine so I do Polysomnograpy in the laboratory.

T-BONE: Are you a sleep tech technically?

PAT: I do sleep tech, yes.

T-BONE: Ok so you're a dental assistant in dentistry, a sleep technician in medicine and you're a PHD candidate.

PAT: I'm a PHD candidate. Came in development and sleep

T-BONE: So basically you're unbelievably smart.

PAT: I'm kind of a dork. Yes

T-BONE: That's a nice way of saying nerd, ok. [Laughs]

PAT: I'm kind of a dork it's ok. It's ok but my kids you know, all my family loves me that's what really all that matters.

T-BONE: That is very much what matters. So just a - how much time do you spend training and speaking versus clinically in working with patients?

PAT: Well, I'm in the clinic probably let's say I'm in the office with Mike, I work 31/2 you know about almost thirty eight (38), almost 40 hours I work 24 hour day on Wednesdays, I work in the office for patients from 7am till 4:30 I'm off for about three hours I go in to the lab and then lay over night with patients. [Crosstalk]

T-BONE: As a sleep technician.

PAT: Right and they're usually all that were place citation appointments that I do for all of our - I don't care if it's another dentist really I don't mind the things that makes us most proud is there are a lot of dentist that do oral plans therapy in our area

and that's great, you know it's nice when they say they'll schedule the patient on her night because I know she'll do what I want. and we can come across to finish that's the point, because they need to understand you may come in tonight I may need to adjust this numerous times to get the kind of efficacy that I think is best for you but perhaps your toleration of that adjustment may not be such that you can do that from the get-go. So let's get you to that point tonight I know that I got efficacy by what I see on the screen and when I'm counting up as I'm scoring. Then in the morning I can dial it back get in their appliance as it was. When they present it for their study send them back to their dentist with the report that says this is why I know we have maximum efficacy all you need to do is walk them base on their tolerance level and it's a win-win.

T-BONE: Ok, so now I'm going to ask you to do something that might be a little bit difficult for you Pat, okay? You've been doing this for thirty years roughly now ok. so I'm going to ask you to go back twenty eight (28) to thirty years (30) and think like most of my listeners and selfishly like myself and I want you to think back to the practice that is maybe ok so there's you know ultimately there's multiple stages of sleep in a practice [crosstalk] there's those that are just starting they literally don't know much and I want to address them a little bit and then selfishly I want to address were we are and the fact that we've been doing sleep we have a reasonable understanding of it, but when I talk to people like you I know that I'm not reaching my potential in terms of the outcome for the patient and I know that is another level for me to get to.

So I want to get to that point a little bit later in our conversation but right now let's talk about when you start it with Dr.Salik was he doing a sleep medicine at that time?

PAT: Not really, no.

T-BONE: When you say not really what is that mean?

PAT: He was interested in it he was learning about it he was very interested in the whole process of it. I think he was – when I had met him he was in a period of mourning. He was mourning the loss of a very, very dear friend who called [unclear] in the middle of the night and died. And he [crosstalk]

T-BONE: His CPAP mask?

PAT: His CPAP mask, yes. And so and this is somebody he dearly loved and it was really, really hard for him. He had this knowledge you know the introductory course knowledge that you will get you know at AUDSM or you know Sleep [unclear] solutions, any of those, I don't care cause it's an introductory course you get the abc's and he'd been there and he'd done that but he had no idea – how do I do these in my practice.

People was saying we are talking about sleep you want to sell me something I mean that's a natural segue way for patients that have done practice that's not airway focus. So that was where he was. He would like to have done it he had no idea of how to do it.

T-BONE: Ok so basically, every dental practice out there.

PAT: It's just about where everybody else is. That is exactly where everybody else is starting out. Very few or the younger guys coming in now, you know I've been in a couple of duty house practices recently and they actually have some education in airway so when they're going into - they're talking about these there in their oral exams they're looking for a scalloped tongues, they're looking for things like mouth breathing that you know add [unclear] for the kids. They're looking for allergic shiners.

The young practitioners who have had some exposure to airway in school they're actually a little bit more up and so when

they start working they're just kind of – unless they are in clinic which is you have to crank X number of dollars for fillings every day. [crosstalk]

T-BONE: Yes, those guys, those people are focus on fillings and crowns [Crosstalk]

PAT: They are focus on fillings and they don't care, they just [Crosstalk]

T-BONE: And I don't fault them for that, my hope is that they move forward at some point in time. [Crosstalk] So let's do this, so when you joined Dr. Salik's practice as an assistant in their practice [Crosstalk]

PAT: I came in as an auditor; I came in as an auditor. [Crosstalk]

T-BONE: What are you like, the IRS?

PAT: Kind of – like I came in and I audited the practice they have had a huge staff turnover and things were not where they should be and they you know they just need a new set of eyes that kind of have a global vision of what was going on and as I as there kind of sorting out what was going on with the practice I just kind of introduce a concept of – I think that you know you have this knowledge base you need to implement in your practice and that's kind of where we started.

T-BONE: And was Dr. Salik's practice a traditional general practice, fillings, crowns?

PAT: General reconstructive, very well thought of, very stable long term. We've been in practice for about 36 years at that point and consistent in his community and yet he had these knowledge base that he wasn't putting to use.

T-BONE: Okay, so walk me through – you know I always say the word briefly because at the end of the day we got to keep within at a certain timeline here, but and I got so much I want to ask you.

So talk to me about going from zero to hero and how you got started? Focus on how you got started in the practice with sleep.

PAT: Sleep, you know, we just – the first thing we did was I got a screening skills, I got the assistants and hygienist in there and said you will screen every patient for sleep.

T-BONE: By that you mean what? What do you mean by that?

PAT: We change the updated health history for every hygiene appointment we just send nothing as simple as stuff bag which is really not an individual type thing because you miss so much but it works on a global level in a practice. So you're starting to at that hygiene check you got a tiny little addendum that is yourself then you start the conversation with the patient based on - how are you feeling today, today is 3;30 in the afternoon you're falling asleep in your hygiene appointment. You know those kind of things. He screened every new patients that came in.

T-BONE: Maybe the hygienist was just boring them. [Laughs]

PAT: Perhaps.

T-BONE: Listen, I'm a joker Pat. So back to this medical history when you say you updated it or changed it what specifically did you guys change there?

PAT: I literally added - I branched it up on the you know it's on the computer and you just branch it up I added a [unclear] box and leave it there and I just said these is part of it they have to fill it out.

T-BONE: So that's it?

PAT: Yes!

Ep # 14: A Conversation on Dental Sleep Medicine

T-BONE: Ok and for those listening, the stuff bank is a sleep questionnaire not unlike the other studies [crosstalk]

PAT: Five questions.

T-BONE: And what are the five questions?

PAT: Oh gosh it's like you know –

1) Do you snore?
2) Do you stop breathing when you sleep? Do you – has anybody witness you sleep?
3) How tired are you on scale of 1-10?
4) Do you – are you male?
5) Are you over X number of years, are you over, you know overweight?

It's simple. You just definitely check the box off and if they're high risk you load them the hygienist will be informed and they loaded them and there are exams over for a different kind of - you know you're not just getting a hygiene exam instead of having a hygiene exam in the hygiene chair at that point. If they scored high enough on that stuff bank, we pick them up and we move them over to the dental chair then we started doing more real focus airways assessment measuring intro dental arch width.

Measuring things like scalloping tongue, looking at mandibular party, looking at tonsils, starting to look at the nose and see if there's any airway issues. At that point we started those kinds of things based on whether or not they had a risk on the stuff bank. So stuffing is a population score but from there you can kind of, you can move them. You can rule out that patient in that spectrum into a more comprehensive evaluation for sleep. It does not - it is not effective for a child. It is not effective for thin, fit female that we get. And many of our TMD patients these stand fit females have inspiratory flow limitations [Crosstalk]

T-BONE: Oh yes because they have narrow arches high vaulted palates, so yes.

PAT: So you're looking for those things and the hygienist had to be trained of what to look for because they've never been trained to look for.

T-BONE: And what did you train them on?

PAT: Pardon?

T-BONE: How did you train them and what are some of the basics that you train them on to look for?

PAT: Well, basically we put a patient. The patient will be in a chair the hygienist would be in there I would go in - we would look inner dental arch width, we would look at whether or not there's a freedom restrictor. Is there a labial freedom restriction, is there a tongue tie? [Crosstalk]

T-BONE: And you're talking about adults here?

PAT: Adults as well as kids.

T-BONE: Well let's focus on adults, ok.

PAT: Adults is you're looking for those restrictions because if their tongue is restricted they didn't know it can't move forward out of the airway. It's held down so can't push forward out of the airway. So we would check on restriction. We would look at what the mandibular, is there scalp on the tongue, I would show them what to look for? Look for odd not erosion areas per se but you will get areas that dental carries and odd places where you wouldn't expect them. That's part of the [unclear] and try out so you know that you're looking for weird areas of carries. We're looking for - are they using their tongue as splint. So if you see this tooth grooves all the way around this tongue then their tongue is not in the box, so is the box too big is this tongue too big or is the box too small. [Crosstalk]

Ep # 14: A Conversation on Dental Sleep Medicine

T-BONE: Nearly the box that is too small.

PAT: The box is too small, so that's really where we got the hygienist right on board. We had one hygienist who is right on board and got it and started screening everybody. We have another hygienist who is like - you can drop a bomb on the tray and then she wouldn't get it. So you have to have people motivated to change, motivated to work, motivated to grow their pedagogy so, that necessitated the change in employment for us.

T-BONE: So, let's not go there. [Laughs] I don't want to scare people too much. [Crosstalk]

PAT: As far as I was concern I was like ok we can give you six months if we can't get the sound board you're done.

T-BONE: Unfortunately, that's how you have to handle things sometimes. So just to kind of give everybody back to I always like to do a reset here is – Pat went in to Dr. Salik's office and Dr. Salik's office was not really doing much with sleep. It's not like she inherited a sleep practice or brought a sleep practice there, she developed a sleep practice within Dr. Salik's office and what it sounds like is she developed this by creating awareness and that awareness was done through the medical history form by adding the [unclear] to the medical history form and by creating awareness by knowledge education through the hygienist so that this is driven to the hygiene department of the practice and the hygienist were in charge of looking at the tongue, the airway, the tonsils some of these things and then once they found these things now it sounds like you're taking them into a sleep, you know, it's a work flow if you're doing a diagram chart and now they're going down the next road which will be for like let's call it sleep consult within the practice.

PAT: Correct, correct and we are very fortunate in that we have you know, we have this one assistant that is, has great ability to connect with the patients and add levity to no matter how bad

the situation is and she, you know – people will freak out, they'll be upset, whatever and Tracy bless her heart you know, some people and you got to have no filter to have this happen.

T-BONE: No, I will be perfect for these.

PAT: She's perfect, I mean Tracy is perfect for this because she has no filter plus her heart. She's able to add levity and to say "Look, you know, it's not any more serious than having diabetes or something else. You got all these certain crap in your health history so what's this? Maybe if you work on this we can fix that." And they're like really and I'm like bless you Tracy but she is smart you know I would show her stuff I would say look this is what you're looking at when we do the filling, this is what you're looking at when somebody you're evacuating how did they breathe? What are they doing? Are they nasal breathe? Are they mouth breathing? She picked-up on it. So much about our success has to do with the ability of the staff members that we entrust with the information we give them. [Crosstalk]

T-BONE: You said that you got a new member, did you get all new team members or were you able to train [crosstalk]

PAT: We unloaded one hygienist

T-BONE: Ok, and that's it?

PAT: One great hygienist in her place and fantastic and not only is she interested in doing the sleep screening she's very interested - she knows about the mild functional therapy and then I do the [unclear] and the breathing retraining for the patients re-training them not to over breath so that's something that I do. [Crosstalk]

T-BONE: Lip taping and stuff like that.

PAT: That's all part of the paradigm but she is - you know we've been very fortunate to have a very stable staff because when you

switch from you know when you stop from medicine - from dentistry into medicine you have to understand it's a very fragile population that you care for.

Consistency is really important in terms of the people who are caring for them. So at that point you know we do everything we can to either re-train people or help them along so that the patient's aren't affecting by SAPP and is not just affecting by SAPP and that's incredibly important, incredibly important. So we've been very fortunate that our staff has not changed at all since that initial period, hasn't changed at all.

T-BONE: Ok so you know my point in asking that was more about giving people hope that are listening to this that adding sleep to your practice doesn't require you to completely change your team that you can take people within your practice, you can teach them some basic fundamentals and then you can slowly go with them. The other thing that I think - and I'm joking of this is that people, you know like people here like someone like you, Pat and I don't want you take offense for this and they will say I will never learn any, as much as she should learn I might as well not even get started in sleep.

PAT: That's ridiculous!

T-BONE: Thank you. It's absolutely ridiculous.

PAT: That's ridiculous!

T-BONE: If I can do it, I can do it right? [Laughs]

PAT: Absolutely, if I can do it anybody can do it. There is nothing that makes me anymore especial that any of you out there. Nothing, nothing. I may approach people in a different way but that's who I am. That doesn't mean that you don't have the ability to absorb the intellectually what I know. You don't have the ability to learn what I know. I've learned as a process of walking down this road, it doesn't take – but believe me I sat through that

ADBSM course with Mike when he was doing that, you know, when you have to go back to Chicago to take this course before you take your board certification for diplomats status. I'm like there's not one person in that room that is any more intelligent than any of us. And which means that if you made it this far and these you want to embrace this if you can read obviously you can learn.

If you make a choice that you want to change the paradigm of what you do, you can but we didn't hire a whole bunch of new people. Now for instance, there's some people that has to be retrained. Your dental insurance person will be lost in the world of medical insurance. There‘s no sure ways about that one and unless you can afford to hire medical billing because you are billing for medical then you know it - you spend a thousand or two thousand bucks you send a girl to an appropriate course and you're done. It's not you know, you have to just say this is a methodology to get us where we want to be. There is no way that doing dental sleep medicine in this day and age especially with the insurance issues the way they are unless you’re fee for service, you'll going to be dealing with insurance and there are payables and there are issues and the way that they. [Crosstalk]

T-BONE: We can beat them all about it or we can just say ok it's a fact of life and deal with it.

PAT: Just stand up, move on.

T-BONE: Yes you got to suck it up and deal with it

PAT: **Yes suck it up and move on because by far the most important thing you do is to realize you have the ability to save somebody's life.** I am done, I'm done I got to sit with patient today who is 110 AHI we got it on six.

T-BONE: With an all appliance?

PAT: We did but all appliance with malfunction therapy.

T-BONE: There ye go.

PAT: We take her breathing to re-train her with her mouth close her lips shut we balance the nutrient therapy we made sure that she has enough B's on board. Her vitamin D3 is in the appropriate range which should be 1680mg (milliliter) those are balanced we get to check every twelve weeks on her and she is doing what she needs to do.

Now that she's sleeping well, guess what? She's not over breathing, now that she's sleeping well she actually goes to her I think its Zumba, or something. she goes to Zumba. So her general overall health status has improved tremendously in the last few months. There's no, you know, there's science to this but there are also - let's just be practical. **If you walk through a program that you can teach every single staff in every single office who wants to do these, you will make people better and the long term goal for this is that you make people feel better.** [Crosstalk] That's just the bottom line.

T-BONE: So before we get into all that stuff you just said because some of that is way over my head when you started talking about DT and all - I don't want to get there quite yet, Pat. So we've created awareness by the medical history form and through hygiene and now the next step is you do a consult. Who does this next step consultation with the patient?

PAT: Mike and I together.

T-BONE: Ok so you and the doctor together?

PAT: Correct.

T-BONE: Ok and is there a charge for this typically or is this something that's part of the hygiene?

PAT: It's part of the hygiene exam. So it's part of the you know return visit examination. You have to remember if you are just screening and trying to get this patient to go ahead and move forward towards looking at diagnostic you don't want to ways that office visit which you're only going to get off, before you do an appliance if that's what you're going to do on you know their hygiene appointment evaluation which is going to try to raise awareness in the patient, get them asking the right questions and moving towards definitive diagnosis because the bottom line is you do nothing without definitive diagnosis.

T-BONE: Ok so that's going to lead into our next step here ok. So the next step after you create awareness and the patient is ready and the patient understands, the patient sees, Oh my God this is starting to make sense, now we have to move towards a diagnosis because without diagnosis you should never treat you should - like I believe that you should never make a snore appliance.

PAT: I agree.

T-BONE: Without, unless you've been tested and there is no apnea going on so...

PAT: That's why you need to know if they say they want a snore appliance but they don't have apnea. You can't [crosstalk]

T-BONE: Or central apnea for God's sake, you know. So, walk me through the ways, the practical ways office can get diagnosis.

PAT: Well, there's two modalities, just two methodologies for doing these, now you need to know underneath that there are some groups that go ahead and they – a dentist will put a person in place in a position's office screen for instance not only your own patient and they will order a home sleep test depending on what state you live in. For instance, if you live in New Jersey forget it, you cannot order a home sleep test and they do use

like a home sleep test model which you need to understand if you order home sleep testing ok we got you know some watch powder something like that that test still needs to be uploaded, interpreted and read by a board certified sleep physician.

Now, the dentist often don't understand is that that's fine, that's a great way to get a diagnosis but you still need to send that patient to their physician with that sleep test even though it's board certified read and the guy has written the prescription they still have to have face to face with the physician within twelve months of that test. That's the legal part of it.

You can order home sleep testing which is fine and there is that paradigm in there and that's one way of doing it and it's much more cost effective. United Health Care for instance, won't even pay for laboratory testing unless you have congestive heart failure. So that's all home sleep testing based on the carrier roles. It's often you have to get pre-authorization for home testing for instance so we have to give you an assistance to know how to do that before they send out for the test.

Our particular practice, because we're hospital based tends to be polysomnography. I would say that's 90% of the time so they're a- I'm almost a hundred percent referral from physicians. I don't really deal with having to - I mean we have patients that we screen but we really tend to send them for that comprehensive with their physician. We get the sleep study and then we go from there, that's the methodology that tends to work for our particular practice. It doesn't work for all demographic for sure.

T-BONE: Ok so ultimately to get a diagnosis you have to have an MD diagnosis, and that MD diagnosis that's going to come from either a home sleep test or a PSG…

PAT: Lab test, yes.

Ep # 14: A Conversation on Dental Sleep Medicine

T-BONE: Alright PSG we've done that in lab so ok, now we got diagnosis what do you guys do after that?

PAT: Well, once the diagnosis comes in of course the patient has tied some sort of a meeting with their - it can be any doctor believe me. We've got people – psychiatrist sending their patients for sleep studies. ENT's, we've got cardiologist, I would say my biggest referral is one of cardiologist in town because there's a lot of patient with AFib. If you have AFib you have sleep apnea which came first the AFib or sleep apnea my guess is sleep apnea so we got a lot of AFib patients from the cardiologist. They got their test in hand, they say you have two choices we either going to put you in CPAP you can go and try we are going to give you the prescription for this or you know if you don't want to do that then we do oral plans.

So you have to actually have for many of the carriers at least in California you have to have a written prescription from the doctor that says either CPAP fail or they don't want to do it noncompliance or if their apnea had papnea index or there is rescusitory disturbance index is low enough, mild to moderate they will say they can go direct to oral plans and that point then you get them in, you do the pre-certification process because there is nothing worse than I mean dental case is done saying ok I've got [unclear] that's nice so what's your deductible? They're like, I don't know. Well, dude it's ten thousand dollars ($10,000) so your appliance is this fee which will be applied to your deductibles. So they need to know all that stuff in advance and your staff if they're doing insurance authorization needs to understand that medical is different than dental. You send the authorization in for crown the ortho dental says - you charge this, this is the allowable, this is what we pay and this is what the patient pays. It's like cut and dry. Medical insurance, good luck, good luck with that. They will only tell you what the coverage is. They will only tell you whether it needs medical

necessity criteria and they will only tell you whether in network or out of network benefits are. There are no dollars and cents involved.

T-BONE: And there's no pre-determination where they tell you in advance whether they will pay for it or not.

PAT: Absolutely not, they will tell you - they say that you have to call and make sure the patient is covered less than seventy two hours prior to care being delivered so I mean if you take impressions and you deliver the appliance three weeks later and their insurance change as well, guess what? Good luck on that one.

T-BONE: Okay, so now we got about fifteen minutes left Pat, so we've talk about awareness, we've talk about diagnosis, we briefly touched on financial and medical insurance and now I'd like to spend the rest of our time focusing on the therapy side of this.

So you know I rate sleep apnea into four steps;

Awareness, diagnosis, financial and then therapy, so to me you can't- each step led to the next step. You can't get diagnosis until the patient's aware that they have a condition and you can't do the financial which involves medical insurance till you have the diagnosis and you can't do the therapy until you have the financials in place.

Now when it comes to therapy this is where to me - it's just a wild wild west out there with - there's so many different ways of doing therapy and you briefly touch on it earlier about what I call add on therapy because you know in my world until about a year ago a dental side of treating sleep apnea was literally just oral appliance therapy but we know it's so much more than that - but for immediate next few minutes let's talk about oral appliance therapy.

So do you have a favorite appliance, do you have – how do you determine which appliance you're putting people in and kind of walk me to some fundamentals there.

PAT: Well, I just made a lot of appliances over the last thirty years I made about seven thousand of them. We use a lot of different appliances. I used to use a lot of dorsals and then I realized that anything that compromises tongue space or increases vault and compromises the ability to close your lips is not going to work. People with extremely narrow arch widths need something that's thin and slim as possible so I've gone through a lot of - we have gone through a lot of appliances; we help develop the EF appliance that's being use by whole Europe. This Respire Medical right now which is quite essentially a [unclear] so it's a most no [unclear] whatsoever, super thin, less than a millimeter.

T-BONE: It's like a partial denture almost.

PAT: It's great, and it opens up it gives us a ton of tongue space and then just last year, in the last two years with Respire have I worked with them pretty extensively in developing what's I call the Zero lingual and so we have – that kind of my go-to, it's really my favorite appliance because there's such a minimal amount of acrylic and the retention is primarily buckle and we got lingual retention balls which are - so that the patients' tongue can really move forward and super comfortable and the metric that I serve is I know the dorsal's is too bulky for me as far as I'm concerned and so I want something as minimal as I can get even though you know longitudinally, the [unclear] just has a retracted and head gear effect, I get that but this is the process that we're walking people to the OA may only be for five or seven years and then at that point you make a decision are you going to – perhaps if there are significant tooth movement and bite changes are you going to move toward orthodenture as additional corrective revision or by maxillary

dentist process. Sleep apnea is a progressive and a process type disease so you can't just stay with one thing.

T-BONE: No and there's physiological changes, there's patient changes- they gain weight, they lose weight you know they get old their muscle tenacity will think dragging things are hanging around and stuff so. Ok so ultimately what you're telling me is you don't necessarily have a specific appliance that you always prescribe? [Crosstalk]

PAT: No because every person is different in their physiological need is different.

T-BONE: Okay so what, sounds to me like a lot of that is based on arch form, patient size, patient comfort level.

PAT: Comfort, you have to understand behavior we were [unclear] somebody too. A big part of the component is understanding the psycho social part of the patient so what are go going to put in there that they are going to be able to tolerate in or move forward.

T-BONE: And they are going to be able to move their lips I think.

PAT: You have to close your lips if you cannot close your lips around the most big flatten piece of acrylic forget it.

T-BONE: Yes, because it doesn't matter [Crosstalk]

PAT: It's not going to work.

T-BONE: They're going to start mouth breathing and that's going to open up a whole new set of problems.

PAT: Well you already have most of these people mouth breathing, so come' on let's do something that encourages them to close their lips and breath through their nose and most people they say why I can't breathe through my nose I say you can't

breathe on your nose because you don't breath through your nose.

T-BONE: Yes, but there's a therapy for that but I don't want to get into that yet, I don't want to get into that yet ok so,

PAT: So I'm not saying you know I doubt any particular appliance I have a preference for - I don't believe in mass production. I don't believe in off shoring, okay. That's a personal profits. I want something made in the good old USA with techs that are trained here that understand when I write I want the mandibular anchor pistons to be put on the second bicuspid. I want no Occlusion on the second molar, I want a finger rest I want this, this, this, this, with this patient that had them better come back.

T-BONE: God, I don't want to work for you. [Laughs] I don't want to be your lab tech. No I get it I'm like that too so that's why I say that ok…

PAT: Because you're seeing them in the chair and you know you get a feeling for what you know what's going to work for that person and...

T-BONE: And also you've also sold them on that part of it. You know you've sold them on, "Hey I want to make sure you're appliance are made to this and this and this." And nothing is more embarrassing than when that didn't happen.

PAT: Right, but I have no problem with sending it back so and they do not want to hear, you know when you call you call back there they're like, "Oh God it's her. [Laughs] They're like, you talk to her. No, you talk to her.

T-BONE: No just hang up on her. So Pat I don't know if you know noticed, I'm building a story here ok and the story is I'm going to take the practice that has nothing going on. We're going to create awareness, we're going to help me get diagnosis, we're going to help me get the financials and now we're going to get

them the initial therapy, okay. So initial therapy is you know George gauge have you take your bite ok, you know when you take your muscular bite, George gauge bite whether you just open them and eye ball their bite, whatever the bite you do we get them into therapy we get them into oral appliance therapy.

In your opinion what is the base line minimum in term of follow-up sequencing for all appliance therapy? See one month, one week to a follow-up HST. In ten days.

PAT: I see them at ten days and then we go to subjective complete resolution at that point. We're looking at compliance at that point we use FDA form that measures their compliance ... [Crosstalk]

T-BONE: FDA like the Food and Drug Administration?

PAT: Yes. There's a subjective compliance form that we fill out. We also is required for Medicare that you have that and the patient fills out, you know any office can do it is not a big deal you just [crosstalk]

T-BONE: Where does one find this FDA subjective compliance form?

PAT: You know it's in their literature you actually have just to go on to Excel create a form that says date, day, time in. time-out and then you have to say nap 1- time-in, time-out; nap 2 time- in time-out and you have enough boxes for about fifteen days.

You put on your excel sheet you give it to the patient with that thing that has a signature line on the bottom and the date and what that does is if you do not have a microchip in it like a [Braid Bond?] if you don't have a braid bond in it we have a lot of pilots or people that are [Crosstalk] you got to have it in there so that's like, the person that does that is [Sound Emit?] they got the deal on it but you can use that [Sound Emit?] advance which will be my preference if you had to cause I think you got a little bit and then I just cut the hell out on the lingual

when it comes back, you know, but at least you're doing what you need to do and go on I just tell them I want lingual return and then they cut the acrylic away and we've got what you need. So they have ten days still there, so they're going to tell you I'm sleeping better or I'm not sleeping better it depends on how either they're dreaming or not dreaming they're getting up either two times to go to the bathroom or not that's the big one for a lot of people is how many times they have to get up to go to the bathroom. You know I used to get up fifteen times and now I'm getting up two. They're good to go. Or I'm getting a longer block of sleep you know I used to wake up every two hours, now I woke up after five hours that's huge.

No day time I think is the last thing that goes, the last thing... [Crosstalk]

T-BONE: Because that take some physiological changes to your [Crosstalk]

PAT: Exactly, that takes [crosstalk]

T-BONE: That takes four to six months sometimes for that to happen.

PAT: More than that, more than that.

T-BONE: So when - what makes you determine if you're going to treat somebody forward or not?

PAT: Subjective complaint, I'm either dreaming, I'm not dreaming my spouses says I'm still snoring and I snore enough and I also believe me before we get that compliance delivered if they've got issues with snoring to their nose I get an ENT evaluate at that point and if I need either nose that way, they get their nose dealt with, cause you can have compliance on you can have your tongue forward by malfunction therapy and you can have tape across your lips and still snore through your nose.

T-BONE: Right.

PAT: Yes, I got that in the nose dealt with but in about ten days I know whether or not I'm going to get her how far and I'm kind of my gut instincts tell me whether or not something needs a little bit of tweaking or they need maybe a little bit more tweaking. Part of it also is are you going to go by the formula when you set this by initially for this patient are you going to deal with vertical are you going up versus out based on their morphology or are you going to do second math standard super standard maximum protrusion and start there. Now some people do ok that just start a lot of people aren't even close. So you don' know until they're in it. [Crosstalk]

T-BONE: And a lot of that has to do with the appliance you choose. How much can it be moved forward, is it a banded appliance like four to six more millimeters forward, is it a dorsal fin that only has the little [Crosstalk] or one of those things where they can you know like we use the ones' that they can mill and they can mill the weighing a little bit forward, farther so a lot of those things and that plays a role and those are the things, Okay, so now we've got about maybe ten minutes left here ok now I'm in the office that's doing appliances you know I'm getting good results I'm picking low hanging fruit and now [Crosstalk]

PAT: That's the easiest way to start. Go with low hanging fruit. Exactly.

T-BONE: Essentially, I'm just describing my practice to you so. and so now I'm starting to get referrals from other physicians and so now we're starting to see some patients what I call comorbidities they have other things going on ok they're failing CPAP they're in their 50's, 60's 70's 80's. I know that oral appliance therapy will help them but oral appliance therapy alone will not help them when I say alone now I'm talking about what you're talking about that is via functional therapy; tongue ties, interceptive orthodontics, or revision orthodontics so talk to me talk to the listeners about ok so - you've gotten success,

you're financially, the stuff are working financially all of that's there.

What's the next education step for somebody there because it doesn't it can't just end at all appliance therapy?

PAT: Oh that's just the beginning, that's just the beginning. We're training to do oral appliance therapy that is only one tool in your artillery. You have to understand that this is a process. This is a physiological process so you have to understand how you know these patients as they age is it going to continue to work for them? Is it going to require that you know part of walking them toward wellness is re-educating them to understand that if they didn't know they have a tongue tie and if you haven't address it how do they know how much their breathing is affected by the fact that they got a tongue tied that hasn't been released.

T-BONE: And what is the treatment for tongue tied?

PAT: That would be a freedom release which a lot of Dentist have done on kids for years and years and years [Crosstalk]

T-BONE: Yes, even infants now a days.

PAT: Infants, every child at birth should be assessed for tongue tie. If they get lock on to the breast comfortably immediately and they can't get a good suck going that tongue needs to be assessed immediately because it's a matter of half a second to release that tongue tie [Crosstalk]

T-BONE: Especially at that age I mean it's so easy.

PAT: Exactly and they don't even feel it. It's like you know the midwife in India are incredible. They as those babies are coming out they literally are looking underneath their tongue and they use their pinky nail and they burp and they do that and the next thing you know if there was a tongue tied it's long

gone and those babies are put directly to the breast and they go they just go to town.

T-BONE: I don't want, ok will leave it at that we'll have another episode on tongue ties and all that stuff that to me is fascinating because I met with some lactation specialists. Ok so the tongue ties is one of it so retribution orthodontics which is essentially expansion. I've heard of situation where their patient have had four by extracted and their expansion are doing something to re - create the space and then putting implants in. [Crosstalk]

PAT: That's what I'm doing right now, that's what I'm doing right now I'm wearing exaginals that revolve in the space behind the cuspids about five milliliters so far.

T-BONE: Ok so you personally are getting that done?

PAT: Yes, and minds for TMJ I don't have airway to sort it but... [Crosstalk]

T-BONE: But they go together, ultimately they go together you know.

PAT: Yes, that's what I'm doing right now so, which is why I kind of spend a long with my [unclear]

T-BONE: Ok and then what is this lip taping stuff?

PAT: Oh my goodness, you can - everybody in their body creates nitric oxide in their Parasinuses ok. It's a natural thing it's a greenhouse gas, yes, but we're not telling you run out and suck on the tail pipe ok. You created in your nose but you only create it when you breathe through your nose so what is nitric oxide do? It is, if you breathe through your nose and you shut your mouth which is what taping does is when you start to breathe through your nose it acts as a natural decongestant. Dentures, your mucus in your nose it then you spit which is perfect but the best thing that it does is it arterial plaques it acts

as a thinner throughout your body so activating nitric oxide only happens when you breathe through your nose. So training obstructive sleep apnea patient to quiet their breathing. breath more slowly don't over breath we can do that with lip taping we start it with people just watching TV doing it for an hour. The goal is to get through the night oftentimes we can get them to learn to posture their tongue correctly behind their front two teeth like suck in to the top of their palate like peanut butter with their taping on and you be – that's where mindful training comes in. So much of teaching people to be in tune with their bodies is understanding something as simple as where is my tongue, where is my tongue? If your tongue is in the roof of your palate and you're breathing through your nose because it stops you from breathing through your mouth and the taping just helps as a dental reminder through the night, very critical that children do not breath through their mouths cause then we get that long facial growth we get that long facial growth, we get the [unclear] and the kid just looks like robot instead of looking like kid with well-formed bones and facial structure.

T-BONE: Yes it's amazing, and so what other kind of therapies do you adjunctive therapies had you guys introduce to your patients?

PAT: Myofunctional therapy we do Buteyko and pranayama breathing

T-BONE: So what's myofunctional therapy exactly?

PAT: Myofunctional Therapy is the re-training for oral progress posture and habit reduction, in other words tongue drasting, open mouth breathing, putting the tongue up to the roof of the mouth, exercises that strengthen the soft palates, strengthen the tongue, strengthen the muscles, strengthen these oricular muscles.

T-BONE: Ok, sorry about the technical difficulty we lost Pat there in the internet connection mid-sentence but so Pat just kind of -

because we're getting to the end here and I'd like to have you back on if you don't mind at some other point so ultimately once you get to the point where you're doing low hanging fruit and you're doing oral appliance therapy and now when you start getting some non-relief from oral appliances in other word patients aren't getting better it's not that you chose the one appliance necessarily, it's not that oral appliance therapy doesn't work necessarily it's not maybe that this is where you need to start learning some adjunctive therapy and that adjunctive therapy maybe lip taping, that maybe adult revision orthodontics, it maybe tongue ties or lip ties, it maybe myofunctional therapy and then you'll be going to talk about some breathing stuff.

PAT: Right, breathing re-training is really critical so, Patrick McKeown has probably written some of the most masterful books. He was trained under Dr. Buteyko who practiced behind the iron curtains for like fifty years and over breathing understanding that part of most sleep apnea patient over breath so we have to train them how to calm their breathing, how to be able to raise their resistance to the C02 that they produce to their body and you can actually increase your actual increase your athletic performance by doing that and by training them to breath correctly we can also help reverse some of the negative part that goes the negative aspects of the sleep apnea.

So breathing re-training myofunctional therapy with corrective revision of things like tongue tie, very, very important and that will make a huge difference for the patients longitudinally. What you're looking at is a long term improvement in their health status. So if you only treat part of the problem because that's the expedient to you at the moment that's great except the patient ultimately suffers if you don't kind of start adding in that adjunct therapy and some patients may use your oral appliance that you create for them if you're going to do that as an adjunct

to their CPAP machine but it allows them to turn the pressures down substantially lower and so they get the benefit, the best benefit of both worlds because yes, CPAP is the gold standard. I can't say that I'm a huge fan of it but for the patients that need it, it's there and if we can lower their - you know if we can increase their ability to tolerate it by putting on oral appliance that means we can keep those pressures down then the compliance that was hired the patients' lives longer so that's pretty much you know, you got to factor all that stuff in.

T-BONE: Why would you want the patient to live longer?

PAT: Why would you not want that?

T-BONE: [Laughs] For God's sake I couldn't want that.

PAT: That was the best thing.

T-BONE: So Pat, alright so we've had a lot of thing, we talk about some wonderful things hopefully, I've assisted in the listeners in following along and making it you know pertain to the busy general practice. What would you say is the next step? Where can somebody learn from you and then where can somebody- what is the step for somebody to create obviously not you but somebody in the practice who is a champion of sleep apnea. What do you recommend for them?

PAT: Right, well I've been very fortunate that house company basically you know she practices you know like when we gather and she comes for Fridays, Saturdays, Sundays sort of deal and they figure out, they bring me in and I do staff trainings and offices over the weekend and I'm happy to do that Fridays, Saturdays, Sundays for people to create somebody, everybody needs their own path, everybody needs their own Karen or Cindy or whoever that takes this information makes it their own and kind of makes it all work and oftentimes it's you know taking them with the courses you know, with you to whatever

courses that kind of blow it out your skirt I think take that person and let them know what an integral part they are to the process that they actually have a hand in much of what you do for all appliance therapy is not required for the dentist to even be in there. Monitoring that patient following- up, following their medical history, writing it up in the electronic health record and having that conversation and connecting with that patient - is that persons - you know, that's their job and if you allow, you let that person say I'm going to let you take this one and make it your own then what you've done is you created this wonderful opportunity for somebody in your practice to become something very different than what they ever expected and more of a partner versus a [unclear] an employee but in many ways they become your partner in this journey that's pretty much what I've tried to instill in them.

T-BONE: Okay, so are there any particular association ADSM the Academy of Breathing whatever, all these different ones' that exists is there anyone' that you're a big fan of or anything like that?

PAT: Oh absolutely, absolutely of course you know I'm a board member for the AAPMD there is nobody who does sleep medicine who should not be a member beyond the AAPMD there is a conference going up in September the weekend of the 14th of September and it is partnering with ACAM. ACAM is integrated Medicine these gives all of these dentist an opportunity to mingle for three solid days in a medical dental arena pick their brain, get their information, see what they want, what are they just looking for, for a dental person to provide as an- they're your arm I mean you are supporting them, you are out there, you are making a difference in their patients' life. They don't have time for a lot of this. So at ICAM you're going to have access to many physicians and many dentists in wide variety topics that are going to move you forward. I'm a person

who acts as a conduit for (NAOFHH) National Association Of Facial Growth Guidance you know and that's really huge because we need to assess children with they're tiny, little and find somebody that would do orthotropics and move this kids grow these faces forward especially if mom and dad have CPAP you know sleep apnea. We want to grow that kids face forward so ATS (American Thoracic Society) is a great way to get a great education. If you join the ATS you may never go to meeting but you have access to all the latest journals information and anything that is remotely interesting for you comes to you, you click on, you read it, you move on.

So this is constant daily introduction of cutting edge information, that's what makes it exciting, that's what makes me get up and look at my e-mail in the morning and see how many in the consult there

T-BONE: If we can all have a Pat in our office for God's sakes. I can possibly retire by now. [Laughs]

PAT: I'm way for a certain retirement than you are.

T-BONE: God, who knows I'm kind of feel it somedays. So Pat, what's the best way for somebody to get in touch with you, do you have e-mail address that you're happy to share?

PAT: p-a-t-m-c-b-1-2-5-9- patmcb1259@gmail.

T-BONE: Okay, so we will put those back in the show notes for those of you who are driving their car right now. Please don't stop driving your car or turn the light while driving your car and Pat there are so many things I wrote down that I want to talk to you about that we didn't get to. I wanted to talk about physician relationships and building those. I want to talk about you know some of these more advance therapies and I want to talk about how you go to the sleep lab with your patients and you know and all of these things so maybe in a few weeks or few months

after you recover from having to talk to me we'll have you back on and Pat [Crosstalk]

PAT: I'm happy to come back on. No worries, I'm happy to help anytime I can.

T-BONE: Thank you so, so, so much and I will be talking to you about coming out to Raleigh to work with us in our training center so that we can do more some advance training. I know Halley's' probably kind of mention that to you. [Crosstalk]

PAT: She did, she did.

T-BONE: And I think that would be a great fit for us so Pat, enjoy your evening, enjoy the rest of sunny California, try to get [Crosstalk]

PAT: Yes it's overcast here right now but thank you

T-BONE: When is it not overcast for God sake?

PAT: Well, once in a while so but I did, if any of you do read Dental Sleep Practice is a really wonderful journal, lots of cutting edge information that you can get. I forgot to mention that Dental Sleep Practice you can get it online, you can get it on your phone. I happened to get paper one only because I like to hold set in my hand.

T-BONE: That dates you a little bit, Pat.

PAT: I know, [laughs] Hey look, I'm waiting to be a grandmother here.

T-BONE: So Dental Sleep Practice

PAT: Dental Sleep Practice and there is an article on Integrating the Physician Dental Relationship the December issue. I have an article in there in the December issue about whether or not we can create symbiotic relationships between dentists and physicians and then during the first issue came out and Dr.

Levine who just about all of us know who has written just about everything definitive about TMJ and sleep he wrote a beautiful article and they asked me to write a companion piece on precision medicine that is in the June issue. You can get it in Dental Sleep Practice and you can get it online. I don't know if all of the latest issue is uploaded, but I'm happy to send you the link.

T-BONE: Yes, if you don't mind sending me the link that I can put that on the show notes or even the PDF and we can put that on the website.

PAT: Absolutely.

T-BONE: Pat, thank you so much and we look forward to hearing from you. I hope you get a lot of people reaching out to you to advance their journey in sleep medicine and really help their patients and really start saving some lives.

PAT: I hope so. That's the goal.

Thanks so much for listening to *T-Bone Speaks* with Dr. Tarun Agarwal. Remember to keep striving for excellence and we'll catch you on the next episode.

Ep # 14: A Conversation on Dental Sleep Medicine

T-Bone Speaks with Dr. Tarun Agarwal