WHY GP'S SHOULD DO CLEAR ALIGNER THERAPY

Dr. Ron DiRezze is a general dentist in his 20th year of private practice. He practices in a fast paced, busy office incorporating the latest in technology while still adhering to proven textbook theory. He is on the Board of Directors for the American Academy of Clear Aligners and a lecturer for Rondeau Seminars.

Clear aligners have been FDA approved since 1999. Invisalign was launched to orthodontists only at first, followed by an introduction to the GP market in 2001. Back then it was heralded as a brilliant, novel invention due to the technology used at the time, but it was widely viewed by the orthodontic community as a treatment that would only work on 0.5-1% of all orthodontic patients. Traditionalists and academics viewed it as dead-end treatment for a couple of good reasons. First, the inventors had no orthodontic experience or credentials, and second, the efficiency in mechanics could not come close to a straightwire system. Despite the mechanical disadvantages to clear aligners, the technology was wildly popular with consumers. Orthodontists and dentists were soon using it in their practices due to consumer demand. In 2005 the Harvard School of Dental Medicine required all its orthodontic residents to be Invisalign certified before graduating.

> **"Clear aligners is a general practitioner's product. As gatekeepers of our patients' health, we now have different treatment methods to not only improve first and foremost our patients' health, but to improve the health of our practices and to have a positive influence on our satisfaction as practitioners.**

Approximately 20 years have passed, and in 2020 we are seeing advances in digital workflows, advances in technologies, and different players in clear aligners entering the marketplace. We have all been affected, for better or worse, by the biggest splash to hit the clear aligner industry, the direct to consumer brands. My personal feeling is that dentists should arm themselves with knowledge. Learn the methods that clear aligners use to create space and learn the attachments that we use. Then, we can properly convey to our patients the limitations of the 'Do It Yourself' brands, should the patients need space created other than by expansion alone. On the positive side, Smile Direct Club and others are making our patients more aware that treatment could be for them. Have you ever seen a patient that is excited to show you their Smile Direct aligners? I have. My inner voice said, 'SHAME ON ME!' That patient had to venture out to a third party to get the treatment they wanted because I never offered it to them, or they did not know I offered it in my office. That was a great lesson for me, and it was my entrance into the practice philosophy that no malocclusion can be overlooked.

I currently sit on the Board of Directors of the American Academy of Clear Aligners and I frequently have new members of the AACA shadow me and my team to see how we approach clear aligners in my office. When the subject of presenting treatment plans to a patient comes up, I always feel sheepish and shy to share the sins of my past, but I know I am not alone.

I believe we all have a treatment bias whereby we are all guilty (at one time or another) of offering treatment only to people who we thought could afford it. Let me explain… we are all general practitioners and we all run businesses.

One way to successfully run a business is to not be offensive to our customers. One way to not be offensive is to not ask for their money. As such we have all developed a treatment bias to some extent where we only recommend our big-ticket items to those who we think want it and those who we think can afford it. I call it the 'Rich Ladies Get Aligners' bias.

To our defense, we did not know any better. This is the way it was. This was our paradigm. We ran successful practices by doing nuts and bolts dentistry, not by doing clear aligners. We would cherry pick and find a willing patient to pay our fee for clear aligners and we would get involved in a monstrous treatment plan, possibly 40-50 trays, non-staged movements, where anything that could go wrong did go wrong! Part of the reason for this was that we took all comers. If you could name the problem, the software could solve it…crossbites, class II's and class III's with ease! Unfortunately, nothing could have been further from the truth and that 'easy money' was not so easy after all.

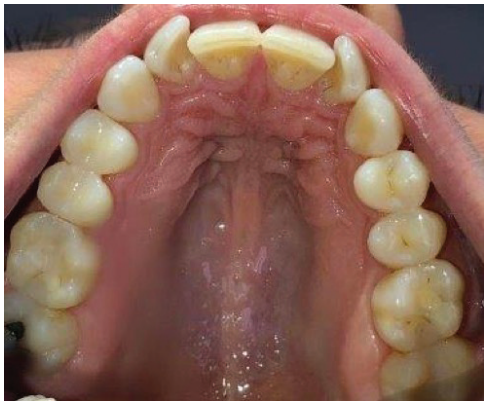

Fig. 1: Pre-Treatment

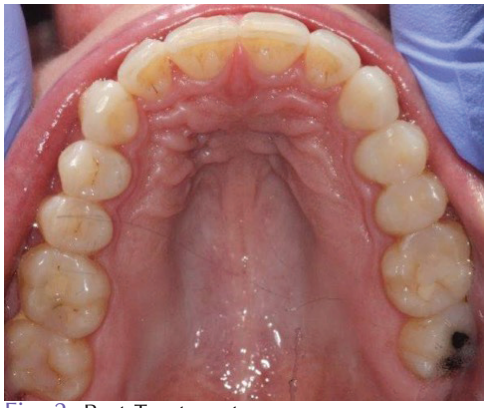

Fig. 2: Post-Treatment

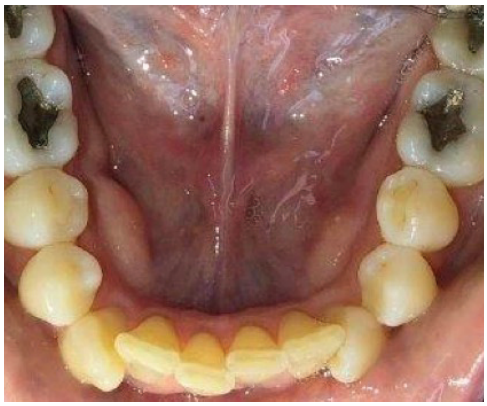

Fig. 3: Pre-Treatment

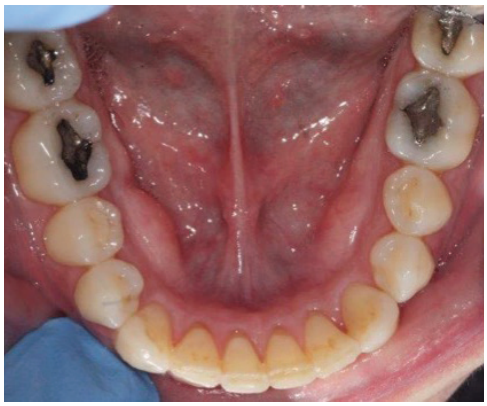

Fig. 4: Post-Treatment

> **"A beautiful healthy smile helps a patient achieve their maximum potential in life**

Nowadays, things have changed. We have new words to describe things that we do, like 'workflow', 'digital workflow', 'best practices', and 'treatment parameters'. We have engines that are developed which is simply a grouping of someone's preferences on the planning software, and we've learned that the treatment planning software run on 'algorithms' that are smarter than we are! As more cases are completed, the attachments and movements are more refined to give more predictable results.

Simply stated, we have easier and simplified ways of bringing clear aligner therapy to our patients. *In my office we discuss clear aligner therapy to ben efit the patients' health and function first.* As opposed to the dreaded statement 'Let me know if you ever want to straighten these teeth', which I have done before, we diagnose and treatment plan all malocclusions, including abfraction lesions. In many cases clear aligners are **prioritized** before restorative work. The take home message is to diagnose, treatment plan, and prioritize your patient's malocclusion because a failure to do so could result in harmful, unanticipated oral health consequences.

Clear aligner therapy today in a general dental office is driven by the patient's chief complaint, a diagnosis, and a firm treatment plan which addresses the benefits to a patient's overall health and oral function. A hallmark of this type of treatment is sound treatment plans with predictable movements. This is gained by a knowledge of the treatment planning software, and a knowledge of the principles of how teeth move in plastic. Spoiler alert: moving teeth through plastic is a lot different than moving teeth through straightwire appliances – and herein lies the advantage and the reasoning of why a general dentist should offer clear aligner therapy.

'A beautiful healthy smile helps a patient achieve their maximum potential in life'. This phrase was coined by my friend and mentor Dr. David Galler, President of the American Academy of Clear Aligners. As a general practitioner who has practiced straightwire for many years, I noticed that this position statement of the AACA does NOT say 'put the patients in class 1 occlusion and satisfy the six determinants of occlusion'.

In this article I will go on to discuss some of the unique ways that a general practitioner can use clear aligners in the office either alone, or in conjunction with some functional appliances to serve a more comprehensive function, and the many effects and benefits it has on the office and the team.

Methodology

In a general practice setting I have created a simple flow chart in my office for treatment of adult patients as well as growing patients. Growing patients get functional appliances to correct **vertical or transverse problems** until class one is achieved. Palatal expanders and the Carriere motion appliances are my preferred appliances for this. **Clear aligner treatment is initiated in non-growing cases once class one is achieved, or in adults whose chief complaint is periodontal stability, occlusion, function, or lastly esthetics.**

For the health of the patient:

As discussed, this methodology in my office is not driven by the patient's esthetic demands. Make no mistake though, the patients all want straight teeth, but opening a dialogue from a standpoint of health and function will serve your patient at least equally well, if not better than worrying about their esthetics alone. The main reason why general dentists should delve into clear aligner therapy is for the health of the patient. I am speaking about periodontal health, a patient's occlusion, and a patient's function. Allow me to ask a few questions here. Does any one among us like bonding and rebonding incisal edge fractures? Does anyone reading enjoy doing fillings that are sensitive to biting hard things yet do not show any blue bite marks on your restorative material? Do we like bonding to abfraction lesions, only to have them flex and fall out after a couple of years? Does anyone get excited and think they are the best dentist in town because you look at your schedule and you see the vague obscure name of a patient who hasn't been to see you in years? Surely you are missed! They cannot live without you! Then you find out that the patient broke their bonding you did years ago and wants you to redo it (for free). Lastly, I ask you…Does anyone like when they hear how great the bonding was done at their last dentist, and how their tooth never hurt/chipped/broke/was sensitive/looked ugly before? I hate all those things. I am not lazy; I am very conscientious. I have a highly trained team and the latest in technology, but one thing I failed to do when initially examining these patients was to *identify their risk factors and speak to them about their health, occlusion, their function, and treatment plan clear aligners.*

I urge you to think about the periodontal status of your patients and how you approach periodontal disease in your office. We all run the numbers. Hygiene production is part prophies, part periodontal procedures, and part maintenance. What we do not run is the clinical numbers. I say that because its my observation that periodontal patients never get better. Don't get me wrong, I give huge credit to my hygienists and my whole team for treatment and education, but we all know if that patient misses a maintenance, or is overdue especially in todays COVID climate, we know that they ratchet down one notch in their periodontal health and now that becomes a new, lower standard. Is there a number to measure that? I do not know how to quantify that other than probing and loss of attachment. In my office, teeth that are malpositioned and display gingival inflammation, bleeding on probing, a larger probing depth, or a crevice that collects more tartar and stain that usual gets a clear aligner treatment plan. Teeth that are straight stay cleaner than teeth that are crowded. This is what gives a patient a chance to succeed. Affirmation that they are doing a good job keeping crowded teeth clean is only a temporary situation. *Malpositioned teeth and their gingival architecture will be negatively affected either by inflammation, bone loss or occlusal forces causing the periodontal status to become worse over time.*

Fig. 5: Clear Aligners

Another example I will point to in a general dental office is how clear aligners can influence function and occlusion.

This is remarkably simple and something we deal with every single day in our offices, but if we are not trained to look for it, then we fail to diagnose and fail to treat appropriately. First, look for abfraction lesions and recession. Even if the front teeth appear straight, they are not properly dissipating the forces being put upon them. In these cases, we need to look for proper overjet and overbite, we need to identify lingually tipped premolars, and we need to unravel misaligned teeth. Second, I identify teeth with cracks and craze lines, and I weigh the benefit and risk of doing either an equilibration or doing a limited aligner therapy. I talk to my patients about it and we *formulate a plan together*. Last, I analyze occlusions using my T Scan from Tekscan/BioResearch Inc., or quickly using the occlusogram function on my iTero. I consult with all my patients about their occlusion and any signs and symptoms they may be having, either something they feel or something I see in their teeth. Again, we formulate a plan to correct pro-actively or to maintain, possibly with a bite guard if they are not ready to follow through with aligner therapy. But for sure, the conversation is documented, and the treatment is planned.

Lastly, let me demonstrate a special circumstance that has emerged in my office. The case of porcelain laminates. Having been in practice 20 years I can tell you that most of my veneers were done to fix malpositioned teeth and a malocclusion. I did almost all these cases without consulting a ceph to check for underlying class III malocclusion or strong muscle tendencies (yikes!!). Today is much different. My veneer cases that truly need it get clear aligner therapy to re-establish normal overjet and overbite, then we proceed to veneers. It is now commonplace to treatment plan to reestablish canine guidance and then just veneer the 4 incisors rather than 6 or 8. I also try when I can to solve the patients esthetic complaint with aligners and whitening if possible.

The opportunities that present every single day in a general dental office to enrich our patients lives and health are plenty. As general dentists it is up to us to **identify the etiologies of the conditions that we monitor every day and discuss solutions to chronic occlusal, functional, and periodontal problems with our patients.** In this new era of diagnosis and being pro active for a patient's health, it is important to recognize that the way it was done before is not our fault. It is not any of our faults individually or as a profession. It is commonplace when talking to other dentists that we were never trained to diagnose in this manner or to do orthodontics in this manner. Most important to realize is that 70% of all patients have a malocclusion.

For the health of the office:

I have always been interested to answer the question of how do specialists do so many cases? That goes for implants, ortho, clear aligners, etc. Of course, there is the fact that the specialist is the last stop and that there is a 'buck stops here' type of mentality. However, it is my contention that if a specialist converts 80% of their treatment plans into cases, then a general dentist should be somewhere in the same range. We have the advantage of seeing our patients on a regular basis in hygiene. This is a sheer numbers advantage that a specialist does not have. *By opening discussions about health, well-being, and functional protection with our patients we can drive not only our patients lives to a higher level of health but also our practices to a higher level of care.* Clear aligner therapy offers us a vehicle to take our patient care and our practices to levels we never dreamed possible. Education about methodology and confidence in presenting is the fuel.

Whether we offer comprehensive ortho treatment or limited, chief complaint focused treatment, an adherence and knowledge of clear aligner protocols can re-excite, re-energize, and 're-engage' us to promote better lives in our practices.

As mentioned before, an interesting dichotomy can now be defined when talking about clear aligner treatment in the general office:

1. **'Everyday'** method – focus on the patient's chief complaint, has quick treatment times, 'easier' malocclusion problems, no class correction, no molar movements, and no complex plans.
2. **Comprehensive** method – achieve same goals as straightwire orthodontic treatment.

There are many skilled orthodontists offering comprehensive clear aligner therapy. These treatments depend on molar movements for class II and class III correction. These cases can be done. And I would go one step further and say that it can be very satisfying to solve a class problem and satisfy the 6 determinants of occlusion with clear aligners. A successful comprehensive plan requires knowledge of the software to manipulate movements, stages, and attachments. It also requires a knowledge of what the limitations of teeth moving in plastic are. Although it can be done, I would suggest that a general dentist simply does not have enough 'fire power' in their office to deal with the challenges a complex treatment would give. Staff, chairs, scanners, stages, changing attachments are all at a premium for larger treatments. We all know what its like when a broken bracket disrupts our day, turning a 10-minute wire change into 30-minute visit plus doctor time. Clear aligners have the distinct advantages of having little to no emergencies, less office visits, and even virtual appointment now in our COVID-19 world.

Despite all the advantages of clear aligners, comprehensive aligner treatment requires diligence and attention to detail

at the beginning of treatment, or you run the risk of minor problems being **magnified exponentially** by the number of trays you have left. Another one of my colleagues and mentors, Dr. Brock Rondeau says that orthodontics is 'a millimeter a month specialty'. The same is true for clear aligners, but we lack the ability to correct as we go.

In collaboration with Dr. Brock Rondeau, we have developed a 2-part, hybrid system for treating cases in a general dental office. This **comprehensive program** will teach a dentist to highlight and utilize the best, most predictable functional appliances to treat jaws orthopedically, followed by predictable and concise clear aligner therapy to finish. We feel this to be a unique and predictable method to incorporate in a general dental office under the umbrella of 'comprehensive orthodontics' that gives dentists another tool in addition to straightwire appliances to treat most cases.

The advantage in a general office is strength in numbers and a consistent workflow. We can cultivate treatment from our own patient pool, we do not need to advertise or depend on referrals for business. Also, with proper training we can avoid the pitfalls of large complex treatments and multiple refinements. In my office I have a dedicated full-time aligner assistant to take care of my aligner patients. She has her own room and her own schedule. We are running at 'platinum' pace right now and I am still thinking of ways to evolve and streamline delivery of treatment.

For all the financial benefits clear aligners can bring to an office, there is a certain and sure buzzkill with aligner therapy when things do not go well. Mid-course corrections give doubt in the patient's eyes, and refinements cost us dearly since we are basically starting a new treatment with no money coming in. It is estimated that each round of refinements could potentially cost an office $1500 or more. We have roughly cut our profit margin in half due to number of visits and occupying the room and using a staff member. I eyeball a timeline of about 8-9 months where we have a patient's attention and compliance. Anything after that I see as borrowed time where I am on pins and needles if something goes wrong or does not track right.

The boost to production that an office can find by offering clear aligner therapy either on its own or in conjunction with a hybrid method can be impressive. **Care and diligence are required** to ensure the proper outcome for a patient. Likewise, an eye to systems, implementation and proper workflows is needed by the team to ensure that this treatment can be *delivered consistently each time it is treatment planned.*

#preach

The first two reasons why a general practitioner should offer clear aligners were very 'centric'. Patient centric and practice centric. The first two reasons I have outlined, by definition, dictate the validity for any treatment in our offices. It must be good for the patient's health and it must fit into our practice modality so that we can deliver it the same way each time. The third and last reason why a dentist should offer clear aligners is a concept I call 'preach' or #preach. *I see it as the benefit to our well being as dentists, a credit to our autonomy, and the unmeasurable emotional boost we get when we have something completely belonging to us.*

Clear aligners are our product. This product is a general dentist product, and we stand behind no one and answer to no one when delivering this care to our patients. Manufacturer certifications exist for dentists. There is no distinction between dentist and specialist as exists in all other disciplines of dentistry. Have you ever had this scenario? One of your patients needs an implant and you tell them that 'you do easy implants'. And the patient says, 'Thanks but Id rather go to the specialist.' That cannot and would not happen with clear aligner therapy in the office. Almost none of the rules of straight wire apply. I take pride in knowing what the names of the attachments are and what they do. As evidence as to how engrained the general dentist is to aligner ideology, some feats of general practitioner include the first 7mm diastema closure, the first anterior open bite case closed, the first molar up-righting, and the doctor leading the nation in case submissions is a general dentist. This is our product!!

As far as our preaching to others goes, I make no effort to suppress the fact that I am a tier provider. I am the authority in my office, and I am the authority at my kid's soccer games. I tell everyone that I can that I am the expert up and down my street and in my town at moving teeth with plastic. I am not afraid to offer treatment to those that need it. It is in this confidence and this ability to have a detailed knowledge of a patients plan that will snowball into case starts in your office, and soon you will begin to preach as I have.

As the gatekeepers of our patient's oral health we have a duty to diagnose and prioritize a malocclusion for the benefit of their perio, function and overall health. Failure to do so makes us only reactive. There are great dentists that are reactive, meaning they react to a broken tooth by fixing it. But I dare you to be proactive in your hygiene department for a week. Open those discussion with every patient with a malocclusion and you will be amazed at what happens. Patients that you never knew wanted their teeth straightened will tell you they have been thinking about it. Even more so, witness the passion and the fire in your team that comes from giving your patient a chance to succeed with the straight teeth they have always wanted. Your staff wants this for you, they want it for themselves, and they are inspired and excited to deliver it to your patients.

Clear aligners have changed my life. Its had too much of an effect on me to simply say it changed my method of treating patients, or it changed my practice, or it changed my career. Doing right by your patients, doing something non-invasive, and having a treatment we as dentist can call our own is life changing. It makes you happy to be a dentist again if you are not and fills you with **confidence and pride.**

How to start

To deliver high quality aligner treatment in your office I would recommend adherence to these 'workflows' and 'best practices'.

- For starters, **take a course and implement a system.** Consistency in treatment planning, consistency in your team's delivery of care, and consistency in your monitoring are the keys to having success and an enjoyable experience with any clear aligner or hybrid system.
- Second, **join the American Academy of Clear Aligners**. Their video training library includes short clips of tips and tricks showing real cases designed to highlight treatment planning and tooth movement schemes. If you want to perfect 5-10 cases a year, or if you want to burn through tier status, the AACA has avenues to help you unlike any other group in organized dentistry right now.
- Third, **invest in optical scanners** for your office, and learn how to do a 'dental health scan'. This refers to a scan on all hygiene patients. In our office its only done when radiographs are not needed, so we do radiographs once a year and a scan once a year. If your calculating in your head the cost of impression material vs. the monthly payment of a scanner, then your missing the point. I use my scanners exclusively for clear aligners. The formula is one scanner for each hygienist and one scanner for each doctor. Show your patients their malocclusion. Point out their wear, cracks, abfractions. Color scanners will show bleeding on probing after a prophy in areas where there is crowding and inflammation. Run the simulations and show your patients what can be done and **open that dialogue based on their health and well-being.** Not only will your clear aligner case starts go up, but you will also convert more treatment and comprehensive care plans when a patient can see their teeth on a screen. This is the old intra- oral camera theory, just re-imagined, viewing all the teeth and the occlusion at once. Seeing is believing!
- Fourth, learn how to **work your treatment plans**. I am constantly reworking my plans to include less inter-proximal reduction and more expansion when I can. I also look for and remove unnecessary movements when I can. Things like rotations and root translations are difficult movements. Although they are usually included in the plan, I look to exclude them as much as I can. The attachment to rotate a canine is huge and perhaps the most disliked by patients. When I see this, I try to sneak in the canine movement under the threshold of needing the attachment.
- Last, become and expert and preach it! Figure out which movements on your patient's plan are hard and which are easy. Let your patients know that you have personally amended the plan to make it more achievable and to make the attachments and inter-proximal reduction more agreeable to the patient. **Let everyone know that you are an authority!**

There is a diligence that is needed to implement these elements successfully into a practice. Likewise, there is a diligence in learning the attachments, the movements, and the software. However, in time there is an unmatched confidence that allows you take this treatment and implement it and escalate you to wherever you want to go.

Conclusion

Rondeau Seminars Clear Aligners Course, Virtual, 2021.

Many patients want clear aligners. General dentists, as Dr. DiRezze's article explains, must learn to offer these clear aligners to the over 70% of adults that have a malocclusion.

This Clear Aligners Course is where the patient's oral health, TMJ health, and sleep status, as well as functional and skeletal problems are considered prior to Clear Aligner therapy. This course will teach a simple system for treating patients with Clear Aligners. The course will include a comprehensive course manual which will have several cases including detailed descriptions of the different attachments. A separate course for your team will also be available to train your team to help educate and treat your patients with Clear Aligners.

Class II and Class III malocclusions will be treated to Class I utilizing functional jaw orthopedic appliances including the Carriere Class II Motion Appliance and the Carriere Class III Motion Appliance. Clear Aligners will be utilized to treat Class I malocclusions only. The objective will be to treat simple cases with 20 or fewer aligners.

If interested in this comprehensive one-of-a-kind Clear Aligner Course please contact lee@rondeauseminars.com for more details and to register.