JUST A CLINICAL MINUTE

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CLINCHECK COMMANDMENTS

In this latest installment of Just a (clinical) Minute, we will dive into the rules of setting up your cases for a predictable and timely finish. My best analogy is that formulating an aligner treatment plan is like a 3-dimensional puzzle. When one side changes, you must adjust the other two sides. In my mind, the variables that I always must weigh are ideal occlusion vs. limits of the software and doctor/patient goals vs. time. In the middle of those four pillars stands your treatment plan.

Before we look at some methods to standardize our treatment plans, it is important to identify the philosophy of care in your office as well as your goals. This will help guide your decisions. For example, I run an extremely busy GP office where I treat primarily adults with clear aligners. My chair time is at a premium and I have roughly 100 cases in treatment at any given time and dozens in my treatment queue. I have a dedicated Invisalign room, an Invisalign assistant, and an Invisalign treatment coordinator. I cannot tie up my chairs or my staff with refinements or mid-course corrections. Nobody can afford to! Therefor my treatments are geared towards fast, concise anterior treatment, little molar movements, I avoid rotating premolars when I can, and I rely heavily on anchorage, premolar expansion and anterior ipr to get to my finish. Conversely, I have roughly a dozen cases in treatment with rubber bands and/or Carrier appliances to correct molar class on growing kids. I also have anterior open bites I am treating with molar intrusion and rubber bands. However, 90% of my cases are 20 trays or less, adult oriented functional (periodontal and occlusal) dependent treatment.

Let us look at some tips and tricks to decrease your time and increase your efficiency. Some of these will be housekeeping items that just require checking one time, and others will require you to submit modifications or use your 3D controls to correct.

1. Same number of trays for each arch.
2. Are the teeth straight?
3. Are your anterior teeth making a ‘round trip’ where they go out and then come back in? There is no need for this, ask your techs to remove the round trips.

4. Bite ramps – should be present in all cases except open bite and rotated lateral incisors.

5. Proper anchorage – all premolars should have a horizontal bevel attachment, an optimized deep
   bite attachment on lower premolars if intruding the lower anteriors, or G8 attachments on the upper premolars if expansion is indicated.

6. End stage overjet/overbite – add ipr or intrusion protocol to adjust.

7. IPR vs. expansion – I try to squeeze every bit of expansion I can out of a treatment plan. I try not to cross an imaginary line from the canine cusp tip to the molar MB cusp tip, but I have made exceptions. For every 1mm of expansion we get between the premolars, we gain over 3 times that amount in circumference. I do this to limit the IPR that I must do to gain space.

8. Rotation of Premolars – I only prescribe these movements if I have too much space or not enough space to resolve my crowding and spacing.

9. Molar movements – I rarely prescribe molar movements. It is taken out of my treatment plan simulations completely. These movements are difficult especially bilaterally due to anchorage and the propensity for an open bite it too great. I prefer to resolve crowding via expansion and IPR instead. The purists will argue that proper comprehensive clear aligner treatment must satisfy the 6 determinants of occlusion including improving class relationship, but I argue that an adult functioning in a class 2 molar relationship for their entire life has nothing to gain by dragging a molar into class 1. Their wear facets are already there, and a new cusp/fossa relationship could not and would not improve their function.

10. Unwanted movements – I look to see if I can limit the ***rotational correction of the canines*** when I can. The attachment on the canine for a rotation is noticeably big. It is the one attachment that the patients complain about the most. When I can shave away a couple of degrees and still make the case look good I will. Sometimes you can get your canine movement in under the threshold where the large attachment is triggered and that is a bonus for the patient. Other unwanted movements are ***extrusions and intrusions***. Somewhere in the algorithm is buried a code to make the gingival margins somewhat even. This triggers a multitude of unnecessary intrusions and extrusions to achieve this which can be the most time consuming and troubling movements you do. The last unwanted movement I look for is single sided IPR to ***chase a midline***. This is very unpredictable, and the anchorage must be perfect to achieve this.

To be proficient, to gain confidence, and ultimately be the ‘expert’ on your block in clear aligner therapy, it is important to study your treatment plans and get familiar with all the movements prescribed. On the doctor sites there are charts to explain what the attachments are and when they are used. Make sure to print or save a copy so you can refer to it while reviewing the software’s plan for your patient. Being diligent and living your life by the ‘Clincheck Commandments’ will pay dividends in decreased refinement rates and quicker, more predictable treatments. Always remember that just because the software says its so, it is not always so!!