Lab Forms and Communications
Precise Indirect Bonding Systems.
Presented by

IN-tendo

www.intendo-ortho.com

and

The Torque Angulation Laboratory

www.torque-angulationlab.com
• The correct information and its communication to the lab is necessary for a successful bonding.

• This information should include future planning; for example, any prosthetic or cosmetic work in collaboration with a Prosthodontist. Future crowns, tooth reductions or changes of morphology such as a canine to replace a lateral.

• Height requirements for brackets may well depend on this information.

• X-Rays of displaced roots where root torque may be needed or a simple message to apply it to certain teeth such as palatal placed laterals for example.

• In Lingual Orthodontics we are dealing with mainly adults, so what we can do to the patient effectively is restricted for a stable outcome, think about expansions, recession, perio-involvement, etc., therefore good communication between clinic and lab is essential.
An example of a diagnostic set–up form. The information required really helps the lab do a better job...we are not mind readers😊
An example of the bonding form. This information is not the same as the set-up model info. The type of bonding required, movements and extractions indicated + wires required. Say what teeth do not need bonding and why…? Future extraction, Pontics on bridges, etc.,

There’s also a space to write your own specific bonding values.
What treatment plan?

Which brackets will best achieve it?

What type of bonding / lab service do you need?

Does it fit with the treatment costs and your skills?
Filling in the lab forms:-

Obviously your e-mail is very important so we can communicate, line ID and or Messenger are also helpful for quick small communications. I sometimes send interim images via WhatsApp or Messenger whilst I am doing a set-up to ask a specific question. Age of patient is also a help for us. Tell us what arches you want treating.

Tell us what system you want, BEST or IN-Tendo. On the top right we have the arches. Here you can mark with an X all teeth being extracted. It also helps to indicate movements by adding arrows to that effect. Teeth missing or not to be bonded should be shaded in. Tick the box if you want the “Lab Brackets” or your own (which you will supply).
More details about teeth to be bonded/extracted. Apart from the shading and the X’s, it also helps if you indicate preferences for Molar brackets. Place a T for tubes and a D for Double brackets.

Tell us also in the box if it is an extraction case and if you intend to use Mini Screws (TADS). Also tick the relevant boxes for the choice of wires and template. You can write in extra wires if the size is not there.

Then we need to know your preference for transfer trays. Whole arch = 1 piece, Bi Lateral = 2 pieces and anterior / posteriors sections = 3 pieces.

Finally on the bonding form you have space to write any extra details that you think will help us do the correct work for you.
If IN-tendo is the choice of system on the first lab form, then the second form for “Set-Up Models” needs to be completed.

ArchForm means which is the preferential arch form to follow, if neither, then use the boxes below for Ovoid, square or tapered.

Expansion or Constriction? Indicate the max of each arch.

If there are some teeth which are good archform indicators, please write them down in the box provided.

If protraction or retraction is needed, please Highlight which and indicate the desired amount.

Treat to which Midline, tick the boxes…Upper, lower or facial?

How do we achieve this? IPR, Archform symmetry?
**Class?** Tick the boxes for which is applicable, Class I Molar and Canine?

Axial tooth references….what does this mean? Any tooth with a nice long axis that you and the patient would really like to keep. For example an Central incisor that looks nice, therefore we can use this as an ‘Axis’ indicator.

What type of Occlusal plane do you want/ Flat, with COS (Curve of Spee) or just maintain?

Would you like to Intrude or Extrude teeth? Please write in the box which teeth numbers.

Over Bite…what is the desired OB for the case, tick the box.

And finally there is space at the bottom to include any other special requirements you have.
The following are some examples of good communications via photos and other means...
Patient:

Date: September 30, 2014

Dentist:
You can send individual photos via e-mails or CD with the work, or make a Word Doc as shown here, digital images or send a PPT.

One tip, if sending any photos via e-mail be sure to ‘resize’ them so they pass the internet easily to be downloaded. You can do this in most image applications like ACDsee or similar.
Composite pad thickness and shape depends on the purpose. Reduce bends? Shape for better bonding and hygiene.

“To Bend or Not to bend...that is the question?” 😊
Tell the lab what you prefer to do and what thickness of composite should be the maximum.
Specific height or axis requirements? Will certain teeth be modified in the plan, cusp reductions, crowns, etc., Because the height of the brackets depend on this also to avoid re-bonding or bending to finish.
Tip backs on Extraction cases for anchorage or will you use mini screws / micro implants? Sliding mechanics or loops?
What type of brackets?

Self Ligating or Normal Slot?
All 018 or mixed with 022 for posterior sliding mechanics or just bi-dimensional for posterior passive torque?
What prescription? To close a diastema will best using some “tip backs” ...ask the lab to do it!

Where do you want your tubes? On the 7’s only or on One last molar unilateral...or both 1\textsuperscript{st} and 2\textsuperscript{nd} molars?
To control buccal torque in non-extraction cases then we should use a bracket system that is 018 throughout OR you will have an average of 17 degrees of play if a 022 posterior bracket is used!

Maintain spaces or not? It affects the positioning also.
Here I did a mix of ORG Mini anterior brackets with 018 molars from the same company, but another bracket system. But they do not make any nice suitable PM brackets other than big 7th gen type, so I used a labial bracket for max rotation control.
The inter bracket distance in this case allows this mix, if the brackets were closer then a single bracket would be better on the PM.
Close up of the Lower for the previous slide and below the bracket system the PM brackets were taken from.
Where the robots will bend wires or the Dr. wants simplified without torque, then we can bond the brackets as close as we can to the teeth, same as 2D. But keep in mind the torque cannot be programmed into the slots like this, so morphology will dictate the slot positions and therefore the wires could have many twists in them causing more friction and therefore slower movements.
This was a case for the SureSmile system from Orametrix in the US, with robot bent wires.
Bands and brackets soldering to them? Best to fit them to the models before sending, or if you take a silicone impression, be careful not to move the bands and then send the impression to the lab for casting. We always have problems when they are cast before arrival. There’s a technique to getting them off the models without too much difficulty. Vaseline is not good enough! All the inners surface is best covered by a very thin coat of denture wax, also any areas where stone could cast into around the outside of the bands.
Preparation of the lingual surface is needed for some teeth to avoid bonding problems. Removal of enamel elevations if possible will simplify the lab bonding by getting brackets closer to the other teeth and improve patient comfort.
Again incorporating tip backs in extraction cases for max anchorage:

Not needed so much on all teeth if mini screws are used, you need to judge case by case for the mechanics needed.
Summary:-
• Plan ahead as much as possible
• Look at each case individually
• Check all impressions before going ahead.
• Communicate all relevant details to the lab.
A lab who communicates well!