ABO Case Management Form

ABO American Board of Orthodontics™

The highest commitment to excellence.

Today's Program

- History and Evolution
- Review of The CMF and its Elements
- Example of Completed Form
- Examples of Typical Errors
- Practical Applications

DI

- 12 defined and quantified parameters measuring case complexity

EXAM YEAR _____ **ABO DISCREPANCY INDEX**

ABO ID # _____ **CASE#** _____ **PATIENT** _____

TOTAL D.I. SCORE 0

For mm measures, round up to the next full mm.
Examiners will verify measurements in each category.

OVERJET

≥ 0 to < 1 mm (edge-to-edge)	= 1 pt
≥ 1 to ≤ 3 mm	= 0 pts
> 3 to ≤ 5 mm	= 2 pts
> 5 to ≤ 7 mm	= 3 pts
> 7 to ≤ 9 mm	= 4 pts
> 9 mm	= 5 pts
Negative Overjet (x-bite): 1 pt per mm per tooth	= ___pts

Total ☐

OVERBITE

> 1 to ≤ 3 mm	= 0 pts
> 3 to ≤ 5 mm	= 2 pts
> 5 to ≤ 7 mm	= 3 pts
Impinging (100%)	= 5 pts

Total ☐

ANTERIOR OPEN BITE

0 mm (edge-to-edge), 1 pt per tooth =____pts
then 1 pt per mm per tooth =____pts

Total 0

LATERAL OPEN BITE

≥ 0.5 mm, 2 pts per mm per tooth

Total ☐

CROWDING (only one arch)

≥ 0 to ≤1 mm	= 0 pts
> 1 to ≤ 3 mm	= 1 pts
> 3 to ≤ 5 mm	= 2 pts
> 5 to ≤ 7 mm	= 4 pts
> 7 mm	= 7 pts

Total ☐

OCCLUSAL RELATIONSHIP

Class I to End On	= 0 pts	
End-to-End Class II or III	= 2 pts per side	____pts
Full Class II or III	= 4 pts per side	____pts
Beyond Class II or III	= 1 pt per mm additional	____pts

Total 0

LINGUAL POSTERIOR X-BITE ☐

> 0 mm, 1 pt per tooth Total

BUCCAL POSTERIOR X-BITE

> 0 mm, 2 pts per tooth Total ☐

CEPHALOMETRICS (See Instructions)

ANB ≥ 6° or ≤ -2°	@4pts	= ___
Each full degree > 6°	___x 1 pt	= ___
Each full degree < -2°	___x 1 pt	= ___
SN-MP		
≥ 38°	@2pts	= ___
Each full degree > 38°	___x 2 pts	= ___
≤ 26°	@1pt	= ___
Each full degree < 26°	___x 1 pt	= ___
$\overline{1}$ to MP ≥ 99°	@1pt	= ___
Each full degree > 99°	___x 1 pt	= ___

Total 0

OTHER (See Instructions)

Supernumerary teeth	___x 1 pt	= ___
Ankylosis of perm. teeth	___x 2 pts	= ___
Anomalous morphology	___x 2 pts	= ___
Impaction (except 3rd molars)	___x 2 pts	= ___
Midline discrepancy (≥3 mm)	@ 2 pts	= ___
Missing teeth (except 3rd molars)	___x 1 pt	= ___
Missing teeth, congenital	___x 2 pts	= ___
Spacing (4 or more, per arch)	___x 2 pts	= ___
Spacing(mx cent diastema ≥ 2 mm)	@ 2 pts	= ___
Tooth transposition	___x 2 pts	= ___
Skeletal asymmetry(nonsurgical tx)	@ 3 pts	= ___
Addl. treatment complexities	___x 2 pts	= ___

Identify:

Total Other 0

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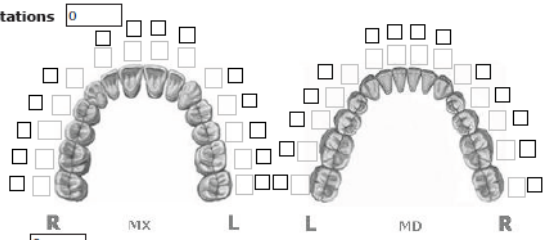
CR-Evaluation Form

- Established and defined criteria of dental and occlusal finishing excellence
- Quantified measurable limits of parameters to .5mm
- Eight measured parameters quantifying finishing excellence
- Overall cast-radiograph evaluation

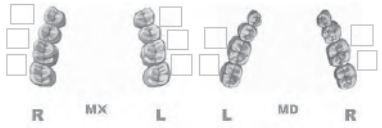
INSTRUCTIONS: Second molars should be in occlusion. Mark extracted teeth with a check in the bolded box. Place score beside each deficient tooth.

Total C-R Eval Score: 0

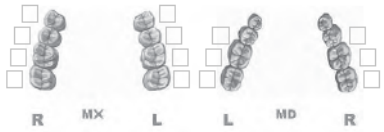
Alignment/Rotations 0



Marginal Ridges 0



Buccolingual Inclination 0



Overjet 0

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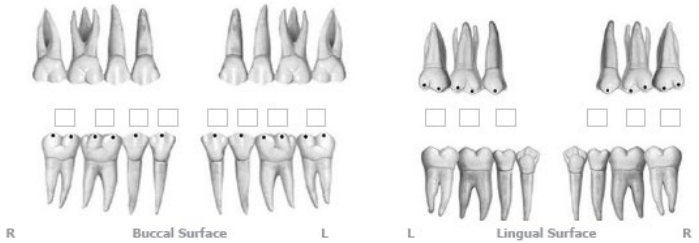
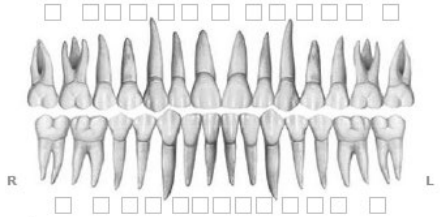
Occlusal Contacts 0

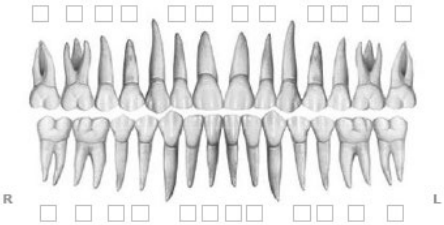


Occlusal Relationships 0

Interproximal Contacts 0



Root Angulation 0



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Reasons for the ABO Case Management Form

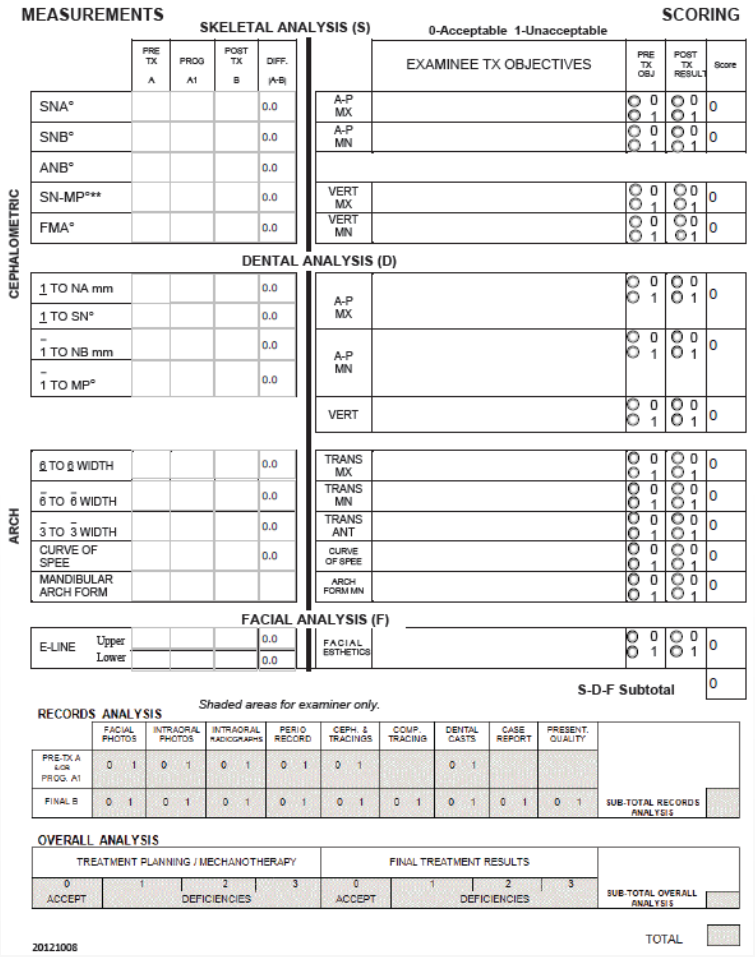
Complete evaluation of an orthodontic case demands more than the Written Case Report, Discrepancy Index, and Cast-Radiograph Evaluation.

There is more to orthodontic treatment than case history, difficulty and excellent final occlusion.

Reasons for the ABO Case Management Form

1. Self evaluation (quantified)
2. Evaluation/judgement of each parameter (quantified)
3. Evaluation of records (quantified)
4. Scores can be scored/digitally retrieved (demonstrates trends)
   - A numerical VTO
   - Self evaluation
   - Monitors record quality

Case Management Form



MEASUREMENTS — **SCORING**

SKELETAL ANALYSIS (S) — 0-Acceptable 1-Unacceptable

CEPHALOMETRIC

	PRE TX A	PROG A1	POST TX B	DIFF. (A-B)
SNA°				0.0
SNB°				0.0
ANB°				0.0
SN-MP°**				0.0
FMA°				0.0

	EXAMINEE TX OBJECTIVES	PRE TX OBJ	POST TX RESULT	Score
A-P MX		○ 0 ○ 1	○ 0 ○ 1	0
A-P MN		○ 0 ○ 1	○ 0 ○ 1	0
VERT MX		○ 0 ○ 1	○ 0 ○ 1	0
VERT MN		○ 0 ○ 1	○ 0 ○ 1	0

DENTAL ANALYSIS (D)

1 TO NA mm				0.0
1 TO SN°				0.0
1 TO NB mm				0.0
1 TO MP°				0.0

A-P MX	○ 0 ○ 1	○ 0 ○ 1	0
A-P MN	○ 0 ○ 1	○ 0 ○ 1	0
VERT	○ 0 ○ 1	○ 0 ○ 1	0

ARCH

6 TO 6 WIDTH				0.0
6 TO 6 WIDTH				0.0
3 TO 3 WIDTH				0.0
CURVE OF SPEE				0.0
MANDIBULAR ARCH FORM				

TRANS MX	○ 0 ○ 1	○ 0 ○ 1	0
TRANS MN	○ 0 ○ 1	○ 0 ○ 1	0
TRANS ANT	○ 0 ○ 1	○ 0 ○ 1	0
CURVE OF SPEE	○ 0 ○ 1	○ 0 ○ 1	0
ARCH FORM MN	○ 0 ○ 1	○ 0 ○ 1	0

FACIAL ANALYSIS (F)

E-LINE	Upper		0.0	
	Lower		0.0	

FACIAL ESTHETICS	○ 0 ○ 1	○ 0 ○ 1	0

S-D-F Subtotal 0

Shaded areas for examiner only.

RECORDS ANALYSIS

	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACINGS	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY	
PRE-TX A &/OR PROG. A1	0 1	0 1	0 1	0 1	0 1		0 1			
FINAL B	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	SUB-TOTAL RECORDS ANALYSIS

OVERALL ANALYSIS

TREATMENT PLANNING / MECHANOTHERAPY				FINAL TREATMENT RESULTS				
0 ACCEPT	1	2 DEFICIENCIES	3	0 ACCEPT	1	2 DEFICIENCIES	3	SUB-TOTAL OVERALL ANALYSIS

TOTAL

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Sample of CMF Skeletal Analysis

SKELETAL ANALYSIS (S)

	PRE TX A	PROG A1	POST TX B	DIFF. |A-B|
SNA°				0.0
SNB°				0.0
ANB°				0.0
SN-MP°**				0.0
FMA°				0.0

0-Acceptable 1-Unacceptable

	EXAMINEE TX OBJECTIVES	PRE TX OBJ	POST TX RESULT	Score
A-P MX		○ 0 ○ 1	○ 0 ○ 1	0
A-P MN		○ 0 ○ 1	○ 0 ○ 1	0
VERT MX		○ 0 ○ 1	○ 0 ○ 1	0
VERT MN		○ 0 ○ 1	○ 0 ○ 1	0

Sample of CMF Dental Analysis

DENTAL ANALYSIS (D)

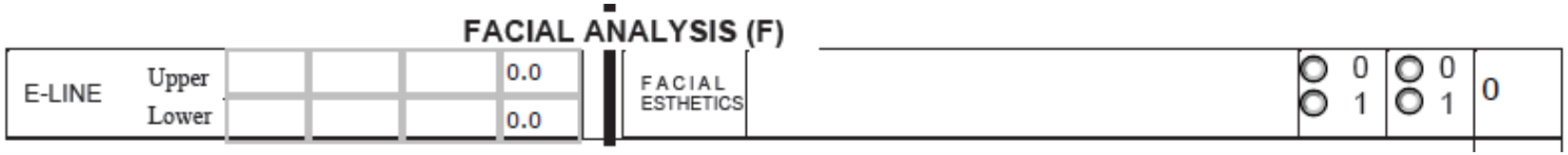
1 TO NA mm				0.0
1 TO SN°				0.0
$\bar{1}$ TO NB mm				0.0
$\bar{1}$ TO MP°				0.0

A-P MX		○ 0 ○ 1	○ 0 ○ 1	0
A-P MN		○ 0 ○ 1	○ 0 ○ 1	0
VERT		○ 0 ○ 1	○ 0 ○ 1	0

6 TO 6 WIDTH				0.0
$\bar{6}$ TO $\bar{6}$ WIDTH				0.0
$\bar{3}$ TO $\bar{3}$ WIDTH				0.0
CURVE OF SPEE				0.0
MANDIBULAR ARCH FORM				

TRANS MX		○ 0 ○ 1	○ 0 ○ 1	0
TRANS MN		○ 0 ○ 1	○ 0 ○ 1	0
TRANS ANT		○ 0 ○ 1	○ 0 ○ 1	0
CURVE OF SPEE		○ 0 ○ 1	○ 0 ○ 1	0
ARCH FORM MN		○ 0 ○ 1	○ 0 ○ 1	0

Sample of CMF Facial Analysis



Sample of CMF Records Analysis

Shaded areas for examiner only.

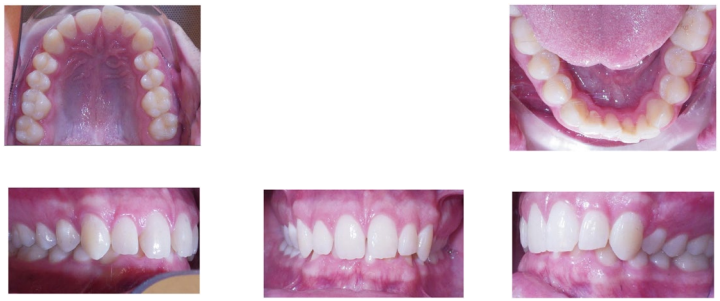
RECORDS ANALYSIS

	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACINGS	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY
PRE-TX A &/OR PROG. A1	0 1	0 1	0 1	0 1	0 1		0 1		
FINAL B	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1

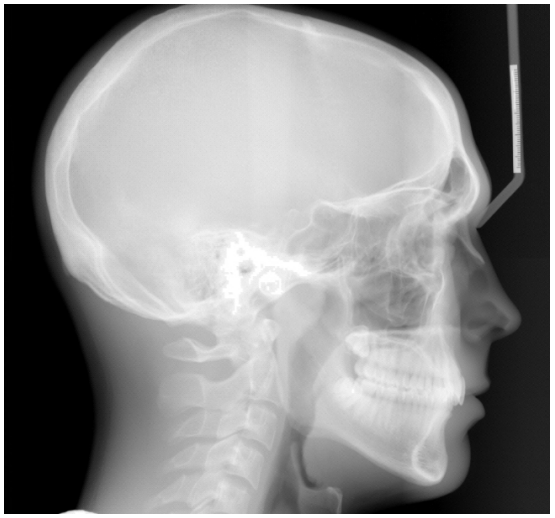
Sample of CMF Overall Analysis

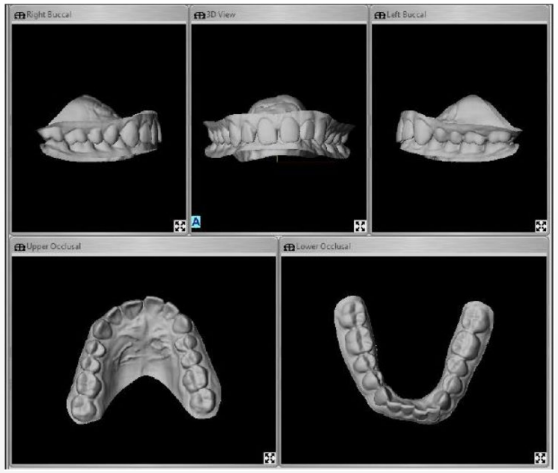
OVERALL ANALYSIS

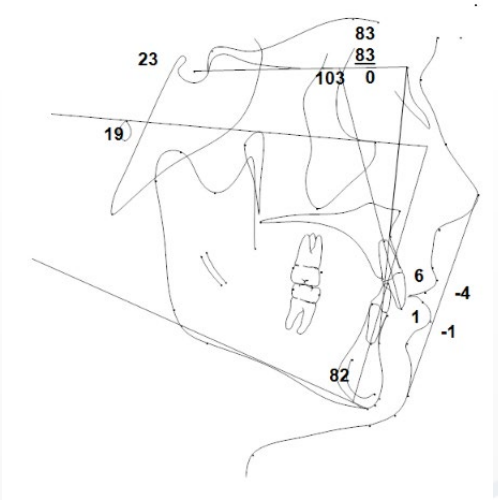
TREATMENT PLANNING / MECHANOTHERAPY				FINAL TREATMENT RESULTS			
0	1	2	3	0	1	2	3
ACCEPT	DEFICIENCIES			ACCEPT	DEFICIENCIES		



Example Case: Jack







Written Case Report

PATIENT'S NAME:	Jack		DOB (mm-dd-yyyy)	4-13-94
RECORDS SET	A		A1	B
RECORDS DATE (mm-dd-yyyy)	09-11-2013			05-06-2015
PATIENT AGE	19 - 5			21 - 1

		SINGLE PHASE	OR	PHASE ONE	PHASE TWO
INITIATED TX DATE	(mm-dd-yyyy)	10-14-2013			
COMPLETED TX DATE	(mm-dd-yyyy)	05-06-2015			
CASE CRITERIA IDENTIFIER		Not Applicable			
DI VALUE		14			

HISTORY AND ETIOLOGY: *630 max.*

Patient is a 19y 4m Caucasian male who presented with a chief complaint of "gap between teeth".
He has a non-contributory medical and dental history, no allergy were reported.

DIAGNOSIS

Skeletal: *360 max.*

Class I with Class III tendency (ANB = 0.1). His mandibular angle was average to low (SN-MP = 23.4)
Cervical vertebrae maturation stage is 5.

Dental: *630 max.*

Bilateral Class I molar and canine relationship, overjet of 4mm. Normoclined upper incisors, retroclined lower incisors. Impinging overbite(7.1 mm). There is a deep curve of spee. The overall space analysis showed mild (2 mm) spacing in upper arch and moderate(3.5 mm) crowding in lower arch.
The upper midline is shifted to the right 2mm, lower midline is shifted to the right(3mm).
There is a 1 mm diastema between upper central incisors.
Developing 8`s in all quadrants.

Facial: *360 max.*

Straight profile, long lower facial third, obtuse nasolabial angel, maxillary midline 2 mm to the right of facial midline, mandibular midline 3 mm to the right of facial midline. competent lips at rest. Excessive gingival display in upper right dentition.

SPECIFIC OBJECTIVES OF TREATMENT

Maxilla (all three planes): *180 max.*

There are no skeletal objectives indicated.

Mandible (all three planes): *180 max.*

There are no skeletal objectives indicated.

Maxillary Dentition

A-P: *180 max.*

Establish ideal overjet, retract upper incisors and close spaces, maintain molar position.

Vertical: *180 max.* **2760 characters remaining**

Intrusion of upper incisors.

Intermolar Width: *90 max.*

Maintain transverse dimension.(Measured from ML cusp tip of U6s).

Mandibular Dentition

A-P: *180 max.*

Improve the inclination of lower incisors.

Vertical: *180 max.*

Intrusion of lower incisors, extrusion of lower molars is expected.

Intermolar / Intercanine Width: *180 max.*

Maintain transverse dimension(measured from central fossa of L6s, and cusp tip of L3s)

Facial Esthetics: *270 max.*

Improve the facial asthetics by closing the diastema.

TREATMENT PLAN: *1170 max.*

1) Obtain the general dentist clearance, record perio probing. 2) Non-extraction treatment plan.
2) Bond upper and lower teeth from 7-7 using 0.022" x 0.028" slot edgewise metal brackets MBT prescription. use posterior bite blocks (adhesive GIC) on lower second molars to help open the bite and bond lower anteior teeth.
3) Level and align using 0.014,0.016,0.017x0.022,0.018x0.025 NT wires then 0.019x25 SS wires.
4) Coordinate midlines and close spaces.
5) Progress panoramic x-ray will be taken, finishing bends and reposition of brackets as needed.
6) Use class II elastic if needed.
7) IPR as needed.
8) Retention: U/L Essix retainers at the day of debond, then upper and lower hawleys with anterior bite plate at 1 month retainer check visit.

APPLIANCES AND TREATMENT PROGRESS: *990 max.*

0.022x0.028 pre-adjusted appliance (victory series; 3M/Unitek), MBT prescription.
Used light straight leg reverse curve NiTi wires to level the curve of spee and open the bite.
The patient was compliant with appointments, elastic wear, and good oral hygience throughout the treatment time.
Light power chains were used to close spaces, Light IPR was done on lower 2-2 to improve surface contacts.
Toward the end of the treatment repositioned some brackets to achieve ideal occlusion.
Patient had debonded, photographs and radiographs were taken and essix retainers were delivered.

RESULTS ACHIEVED

If differing radiographic units preclude superimposition(s) – check here ☐

Maxilla (all three planes): *180 max.*

A-point moved slightly backward due to upper incisors retraction.

Written Case Report

Mandible (all three planes): *180 max.*

There was a backward movement of B point due to lower incisors increased proclination.
Mandibular plane angle increased slightly.

Maxillary Dentition

A-P: *180 max.*

Upper incisors were retracted

Vertical: *180 max.*

Upper incisors were intruded, the vertical position of upper posterior teeth maintained.

Intermolar Width: *90 max.*

Maintained

Mandibular Dentition

A-P: *180 max.*

Lower incisors were proclined.

Vertical: *180 max.*

Lower incisors slightly intruded, lower molars extruded.

Intermolar / Intercanine Width: *180 max.*

Maintained intermolar width, Intercanine width was increased by 1.9mm.

Facial Esthetics: *270 max.*

Facial esthetics improved after closing the diastema.

RETENTION: *630 max.*

Essix retainers were given at the day of debond, then upper and lower hawleys with anterior bite plane at the 1 month retainers check visit. Patient was instructed to wear retainers 20 hours/day for the first 6 months and 12 hours/day afterward.

FINAL EVALUATION OF TREATMENT: *1170 max.*

Chief complaint was addressed, the patient was very pleased with the result. Treatment objectives were achieved in efficient treatment time. There is a relapse potential for the deep bite, However, reducing the interincisal angle that was achieved with treatment in addition to the retainer design (hawley with anterior bite plate) will help migitate the relapse problem.
Upper central incisors showed root resorption, teeth will be monitored and x-rays will be taken periodically.
Refer the patient to general dentist to evaluate the 3rd molars.

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Skeletal Analysis

SKELETAL ANALYSIS (S)

	PRE TX A	PROG A1	POST TX B	DIFF. |A-B|
SNA°	83.1		82.9	0.2
SNB°	83		81.8	1.2
ANB°	0.1		1.1	1.0
SN-MP°**	23.4		24.7	1.3
FMA°	19.2		21.2	2.0

0-Acceptable 1-Unacceptable

	EXAMINEE TX OBJECTIVES	PRE TX OBJ	POST TX RESULT	Score
A-P MX	Maintain maxillary position	○ 0 ○ 1	○ 0 ○ 1	0
A-P MN	B-point moved backward slightly due to incisors proclination	○ 0 ○ 1	○ 0 ○ 1	0
VERT MX	Maintain vertical dimension.	○ 0 ○ 1	○ 0 ○ 1	0
VERT MN	Mandible will rotate clockwise slightly as a result of mechanotherapy	○ 0 ○ 1	○ 0 ○ 1	0

Dental Analysis

DENTAL ANALYSIS (D)

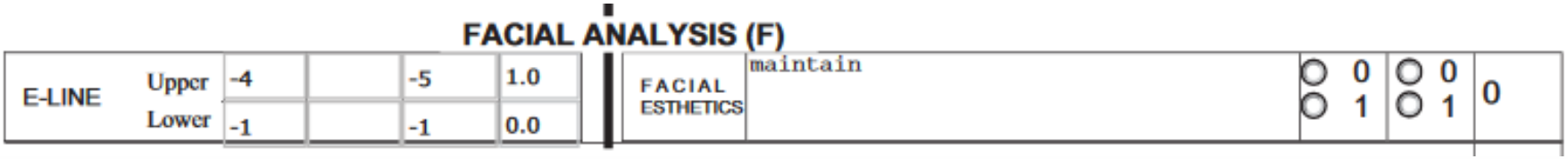
1 TO NA mm	6.6		4.6	2.0
1 TO SN°	103.2		107	3.8
1 TO NB mm	1.1		3.6	2.5
1 TO MP°	82.2		96.1	13.9

6 TO 6 WIDTH	39.2		39.7	0.5
6 TO 6 WIDTH	40.4		41	0.6
3 TO 3 WIDTH	23		24.9	1.9
CURVE OF SPEE	4		1	3.0
MANDIBULAR ARCH FORM	OV		OV	SAME

A-P MX	Retract upper incisors	○ 0 ○ 1	○ 0 ○ 1	0
A-P MN	Increase lower incisors proclination	○ 0 ○ 1	○ 0 ○ 1	0
VERT	Intrusion of upper and lower incisors, extrusion of lower posterior teeth.	○ 0 ○ 1	○ 0 ○ 1	0

TRANS MX	Maintain transverse dimension	○ 0 ○ 1	○ 0 ○ 1	0
TRANS MN	Maintain transverse dimension	○ 0 ○ 1	○ 0 ○ 1	0
TRANS ANT	Increased	○ 0 ○ 1	○ 0 ◉ 1	1
CURVE OF SPEE	leveled	○ 0 ○ 1	○ 0 ○ 1	0
ARCH FORM MN	Maintain	○ 0 ○ 1	○ 0 ○ 1	0

Facial Analysis



FACIAL ANALYSIS (F)

E-LINE	Upper	-4		-5	1.0	FACIAL ESTHETICS	maintain	○ 0 ○ 1	○ 0 ○ 1	0
	Lower	-1		-1	0.0					

Records Analysis

Shaded areas for examiner only.

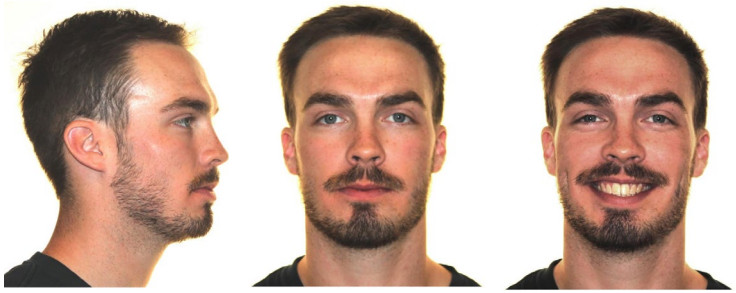
RECORDS ANALYSIS

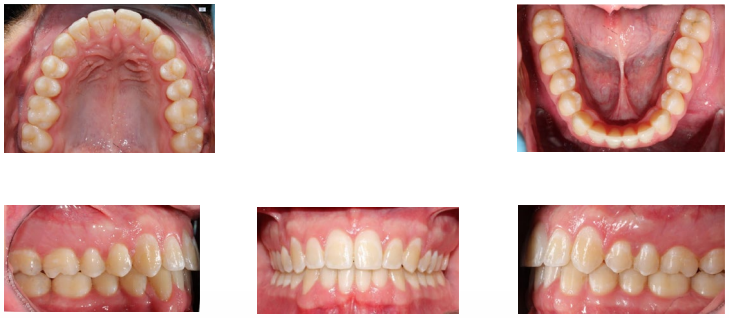
	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACINGS	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY
PRE-TX A &/OR PROG. A1	0 1	0 1	0 1	0 1	0 1		0 1		
FINAL B	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1

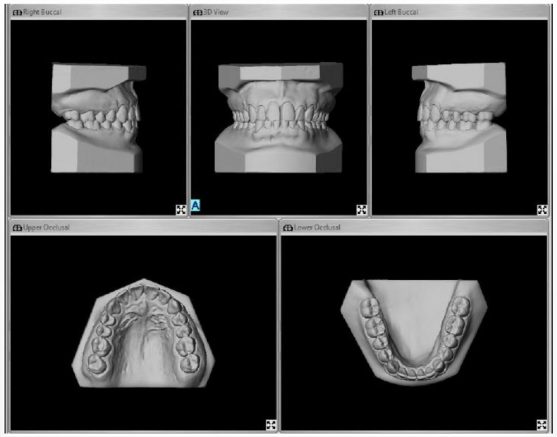
Overall Analysis

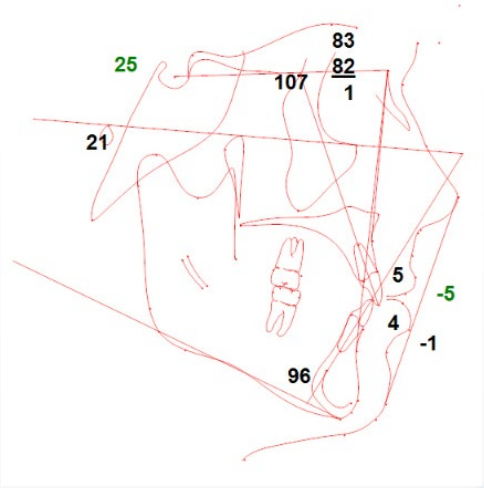
OVERALL ANALYSIS

TREATMENT PLANNING / MECHANOTHERAPY				FINAL TREATMENT RESULTS			
0	1	2	3	0	1	2	3
ACCEPT	DEFICIENCIES			ACCEPT	DEFICIENCIES		








83
82
1
25
107
21
5
-5
4
-1
96

Sample of Deficiencies

RECORDS ANALYSIS

	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACING	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY	
PRE-TX A &/or PROG A1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1		(•) 0 ( ) 1			
FINAL B	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1	( ) 0 (•) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	SUB–TOTAL RECORDS ANALYSIS 3

Sample of Deficiencies

OVERALL ANALYSIS

Treatment Planning/ Mechanotherapy	Final Treatment Results	
0-Acceptable DX/TX planning/mechanotherapy	1-Deficient in 1 aspect of care	
	Premolar would have provided a better finilization	SUB–TOTAL OVERALL ANALYSIS 1

Sample of Deficiencies

1 TO NA mm	4.6		6.3	1.7	A-P MX	Hold 6's - maximum with headgear Procline incisors	0 1 0 1	0 1 0 1	0	2
1 TO SN°	102.4		108.4	6						

MANDIBULAR ARCH FORM	OV		OV	SAME	ARCH FORM MN	No change planned	0 1 0 1	0 1 0 1	0	2

Sample of Deficiencies

•C-R Eval	14	12 DIFF
•CMF	10	1 DIFF

1 TO NA mm	5.5		7.8	2.3	A-P MX	Normocline incisors.	0 1	0 1	0	2
1 TO SN°	104.1		111.3	7.2			0 1	0 1		
$\overline{1}$ TO NB mm	3.1		7.3	4.2	A-P MN	Normocline incisors.	0 1	0 1	0	2
$\overline{1}$ TO MP	80.1		98	17.9			0 1	0 1		

RECORDS ANALYSIS

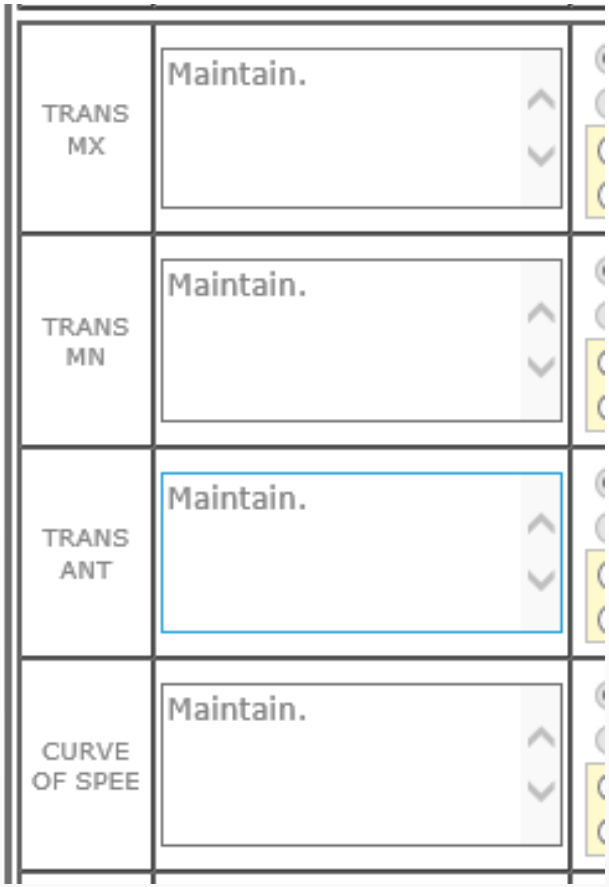
	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACING	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY	
PRE-TX A &/or PROG A1	0 1	0 1	0 1	0 1	0 1		0 1			
FINAL B	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	SUB–TOTAL RECORDS ANALYSIS 2

OVERALL ANALYSIS

Treatment Planning/ Mechanotherapy	Final Treatment Results	
0-Acceptable DX/TX planning/mechanotherapy	3-Deficiencies in 3 or more aspects of care	
	proclined maxillary teeth proclined mandibular teeth, both by arch expansion arch form totally changed in an adult	SUB–TOTAL OVERALL ANALYSIS 3

TOTAL 10

Sample of Deficiencies



Treatment Objective Sample Descriptors

	Arch	A-P	Vertical	Transverse
Skeletal Analysis	Maxillary	No change, no growth expected Minimal growth expected Norm. growth expected Hold, Restrict Advance _____mm Retract _____mm	No change, no growth expected Minimal growth expected Norm growth expected Hold Intrude (Post _____mm/ Ant _____mm) Downgraft (Post _____mm/ Ant _____mm) Correct vertical asymmetry: _____	No change Expand (_____mm) Constrict (_____mm)
	Mandibular	No change, no growth expected Minimal growth expected Norm. growth expected (mostly horizontal) Norm. growth expected (equal horiz & vert) Norm. growth expected (mostly vertical) Adv Pg - autorotation by controlling vertical Advance Pg_____mm Set back Pg_____mm	No change, no vertical growth expected Minimal vertical growth expected Norm vertical growth expected Excess vertical growth expected Plan to rotate clockwise – increase LFH Plan to rotate counter-clockwise –decrease LFH Correct vertical asymmetry _____	No change Expand (_____mm) – surg. Constrict (_____mm) – surg.

	Arch	A-P	Vertical	Transverse
Dental Analysis	Maxillary	No change expected or planned Expect norm growth, no anchorage planned Hold 6's – Maximum Hold 6's – Moderate (allow mesial 2-3mm) Advance 6's: UR6 _____mm, UL6 _____mm Tip back/Dist 6's: UR6 ___mm, UL6___mm ---------- No incisor change expected Hold incisors Advance / flare incisors ____mm _____deg Retract / upright incisors ____mm _____deg Maintain incisor angulation Angulation change, (circle) + or - ,____degrees	No change expected or planned Expect norm development Hold 6's – Maximum Hold 6's – Moderate Intrude 6's _____mm Extrude 6's _____mm ---------- No incisor change expected or planned Hold incisors Intrude incisors _____mm Extrude incisors _____mm	No change planned Expand molars _____mm Expand premolars _____mm ---------- Expand canines _____mm Constrict canines _____mm ARCH FORM: Maintain Alter to:_____
	Mandibular	No change expected or planned Expect norm growth, no anchorage planned Hold 6's – Maximum Hold 6's – Moderate (allow mesial 2-3mm) Advance 6's: UR6 _____mm, UL6 _____mm Tip back/Dist 6's: UR6 ___mm, UL6___mm ---------- No incisor change expected Hold incisors Advance / flare incisors ____mm _____deg Retract / upright incisors ____mm _____deg Maintain incisor angulation Angulation change, (circle) + or - ,____degrees	No change expected or planned Expect norm development Hold 6's – Maximum Hold 6's – Moderate Intrude 6's _____mm Extrude 6's _____mm ---------- No incisor change expected or planned Hold incisors Intrude incisors _____mm Extrude incisors _____mm	No change planned Expand molars _____mm Expand premolars _____mm ---------- Expand canines _____mm Constrict; _____mm ARCH FORM: Maintain Alter to:_____

	Arch	A-P	Vertical	Transverse
Facial Analysis	Facial Esthetics	No change planned or required	Expect norm increase in facial ht	Maintain alar base width
		Reduce facial convexity	No change expected	Smile esthetics (be specific):
		Increase facial convexity	Decrease LFH	
		Hold lips but retract relative to nose/chin, E-plane	Reduce Lip Incompetence	
		Retract U lip _____mm (Estim actual change)	Increase LFH	
		Retract L lip _____mm (Estim actual change)	Minimize increase in LFH with mechanics	
		Advance U&L lips relative to E-line	Expect significant increase in LFH with growth	
		Advance U lip _____mm (Estim actual change)		
		Advance L lip _____mm (Estim actual change)	Incisal display (increase, decrease)	
		Increase chin projection (w growth, w surgery)	Alter smile arc (maintain, increase or decrease)	
			Reduce gingival display	

Sample of Deficiencies

•C-R Eval •CMF	25 9	12 DIFF 1 DIFF

1 TO NA mm	6.5		0.8	5.7	A-P MX	Anticipated some retroclination of upper incisors due to retraction	0 1 0 1	0 1 0 1	1	2
1 TO SN°	106.2		84.7	21.5						

Treatment Planning/ Mechanotherapy	Final Treatment Results	
3-Deficiencies in 3 or more aspects of DX/TX	3-Deficiencies in 3 or more aspects of care	
1. The anchorage methodology mentioned is insufficient for the treatment plan presented. 2. Inadequate control of the posterior anchorage 3. Inadequate control of the maxillary incisor anchorage and root torque	1. The bi-maxillary protrusion was insufficiently corrected 2. Radiographically, the maxillary central incisor root structures appear to have perforation the labial plate . 3. The anchorage loss value is 3:1 maxillary posterior to anterior. 4. Maxillary incisor VME has been increased from the initial pre-treatment position	SUB–TOTAL OVERALL ANALYSIS 6

Sample of Deficiencies

•C-R Eval	34	21 DIFF
•CMF	11	1 DIFF

RECORDS ANALYSIS

	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACING	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY	
PRE-TX A &/or PROG A1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1		(•) 0 ( ) 1			
FINAL B	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1	( ) 0 (•) 1	SUB–TOTAL RECORDS ANALYSIS 3

Treatment Planning/ Mechanotherapy	Final Treatment Results	
2-Deficiency in 2 aspects of DX/TX plan/mech	2-Deficiencies in 2 aspects of care	
Fail to evaluate the amount of proclination of mandibular incisor and attempt to correct Fail to recognize the amount of mandibular crowding due to increase curve of Spee failed to diagnose properly and failed to correct skeletal problem	Fail to deliver appropriate extraction case to prevent lower incisor further proclination Facial bone on the vestibular side is absent Deep bite corrected at the expense of the proper lower incisor position with periodontal consequences	SUB–TOTAL OVERALL ANALYSIS 4

Sample of Deficiencies

RECORDS ANALYSIS

	FACIAL PHOTOS	INTRAORAL PHOTOS	INTRAORAL RADIOGRAPHS	PERIO RECORD	CEPH. & TRACING	COMP. TRACING	DENTAL CASTS	CASE REPORT	PRESENT. QUALITY	
PRE-TX A &/or PROG A1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1		(•) 0 ( ) 1			
FINAL B	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	(•) 0 ( ) 1	( ) 0 (•) 1	(•) 0 ( ) 1	SUB–TOTAL RECORDS ANALYSIS 2

OVERALL ANALYSIS

Treatment Planning/ Mechanotherapy	Final Treatment Results	
1-Deficiency in 1 aspect of DX/TX plan/mech	1-Deficient in 1 aspect of care	
too much expansion	stability of lower incisors??	SUB–TOTAL OVERALL ANALYSIS 2

Sample of Deficiencies

1 TO NA mm	2.2		1.2	1
1 TO SN°	86.2		88.1	1.9
$\overline{1}$ TO NB mm	4.1		5.6	1.5
$\overline{1}$ TO MP	81		86.4	5.4

A-P MX	Class I molar and canine relationship, establish ideal overjet, procline U-1	0 / 1 / 0 / 1	0 / 1 / 0 / 1	0	1
A-P MN	Class I molar and canine relationship, establish ideal overjet	0 / 1 / 0 / 1	0 / 1 / 0 / 1	0	1

OVERALL ANALYSIS

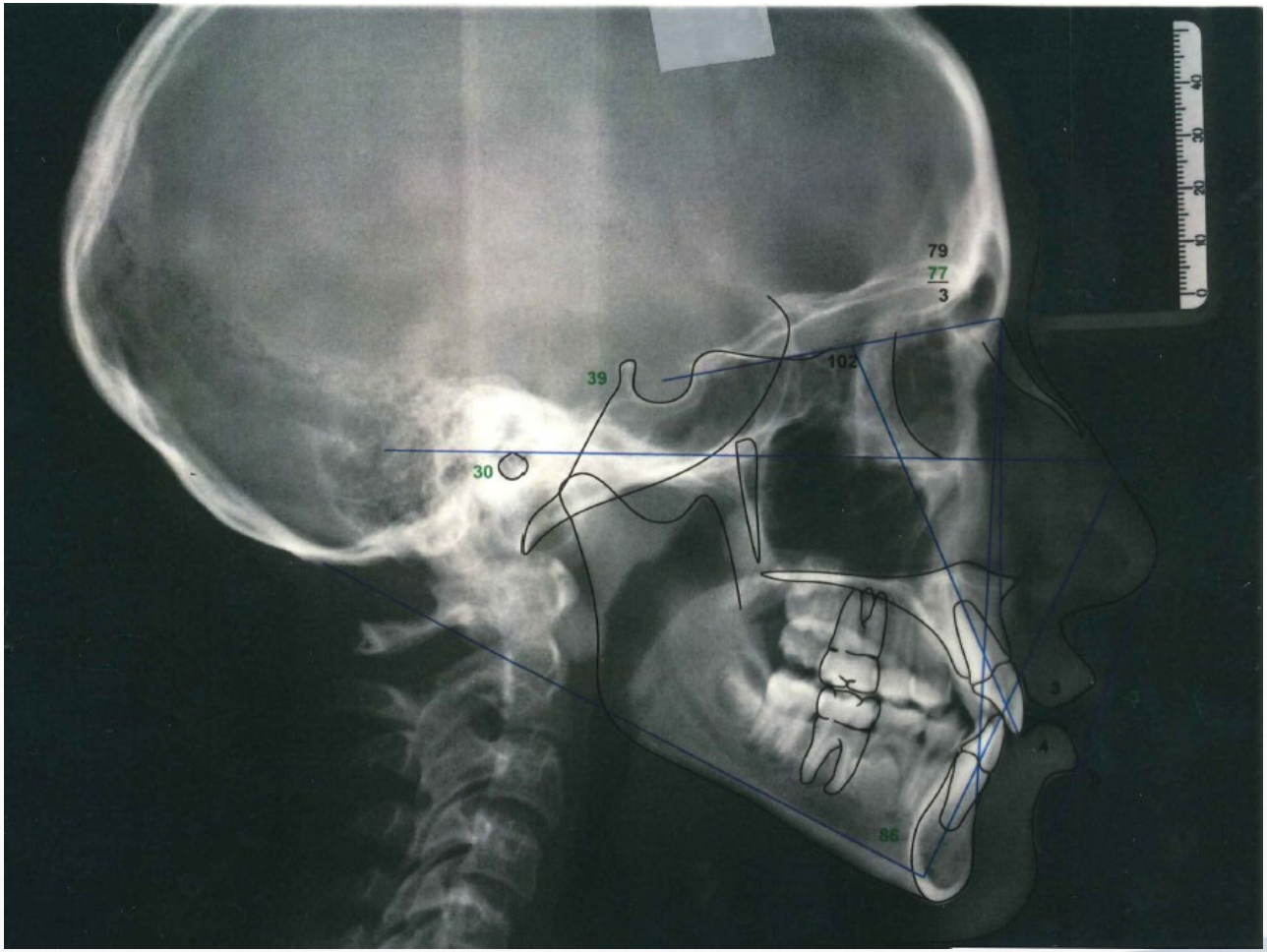
Treatment Planning/ Mechanotherapy	Final Treatment Results	
1-Deficiency in 1 aspect of DX/TX plan/mech	1-Deficient in 1 aspect of care	
No plan to control tongue habit	Shallow overbite	SUB–TOTAL OVERALL ANALYSIS 2

Sample of Deficiencies

OVERALL ANALYSIS

Treatment Planning/ Mechanotherapy	Final Treatment Results	
2-Deficiency in 2 aspects of DX/TX plan/mech	0-Acceptable level of care	
More anchorage prep needed Cl II mechanics caused flair of lower incisors	Attention to detail with finishing needed Unstable position of lower incisors	SUB–TOTAL OVERALL ANALYSIS 2

Poor Superimpositions/Tracings



Applications

- Treatment planning aid with stated objectives
- Educational aid at departmental case presentations
- Self assessment
- Record quality assessment
- Testing tool
- Critical evaluating change over time
- Clinical management tool

Q&A SESSION

THANK YOU!