

EVIDENCE BASED DENTISTRY

Conventional Ortho
Treatment vs.
Invisalign

EVIDENCE BASED DENTISTRY
ROUNDS
ORTHODONTICS
GROUP 10A-5

NOVEMBER 11, 2020

- ▶ **Group Leader: Dr. Yray**
- ▶ **Specialty Leader: Dr. Liu**
- ▶ **Project Team Leader: Kate Collelo**
- ▶ **Project Team Participants: Nwadiuto Ekeh, Carneisha Cain, Jacklyn Moon**

ROUNDS TEAM

- ▶ 14-year-old female
- ▶ Caucasian
- ▶ “I need braces to fix the crowding in my front teeth”

PATIENT

- ▶ Current & past:
 - ▶ Diagnoses
 - ▶ Conditions
 - ▶ Medications
 - ▶ Medical Consults, if any
 - ▶ Treatment considerations

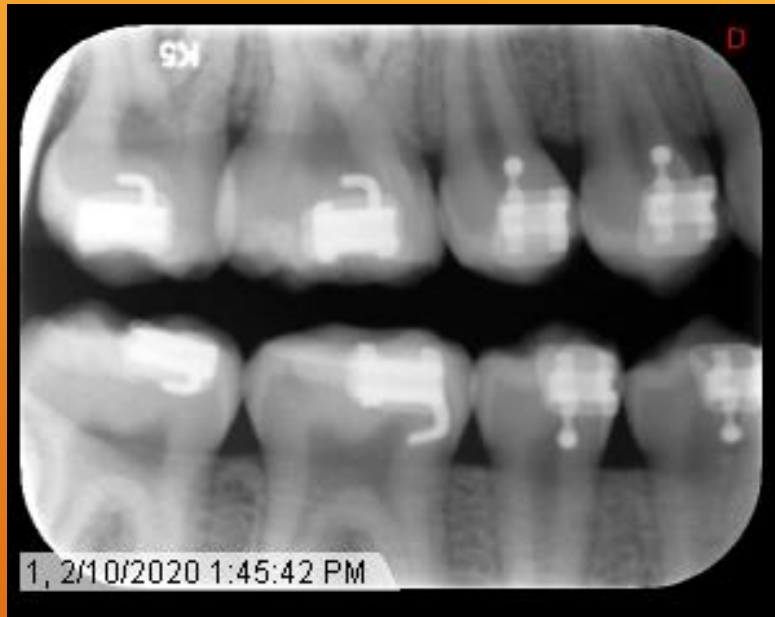
MEDICAL HISTORY

- ▶ Previously treated in MUSoD pediatric clinic
- ▶ Ortho treatment initiated in June, 2019

DENTAL HISTORY



RADIOGRAPHS



RADIOGRAPHS

- ▶ Class I restorations needed on #15 O, #18 O
- ▶ Slight distal rotation of #6

RADIOGRAPHIC FINDINGS

- ▶ 1 slide describing all clinical findings
- ▶ Clinical photos 1-2 slides
 - ▶ Relevant extraoral &/or intra-oral views
- ▶ Photos of casts 1-2 slides
 - ▶ Mounted on articulator
 - ▶ Same views as intraoral photos
 - ▶ Occlusal maxilla, mandible
 - ▶ Open, closed
 - ▶ Anterior, lateral
 - ▶ In occlusion, excursions
 - ▶ Show excursions from posterior to molar view

CLINICAL FINDINGS

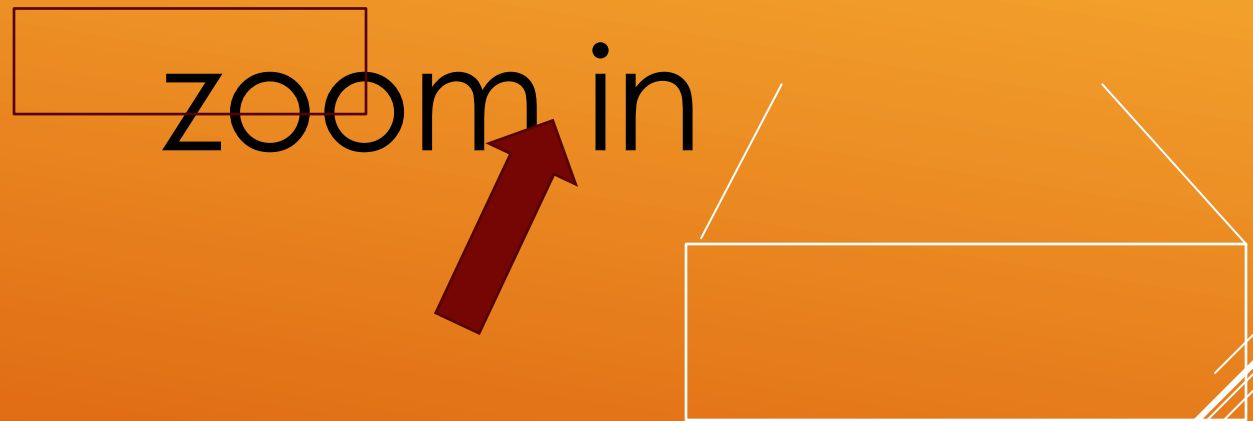
Optional footer for reference citations or other notes. Delete if not needed.

- ▶ List findings specific to the Rounds discussion, 1 slide
- ▶ To enhance viewing, include close-ups of clinical photos, cast photos, radiographs, add slides as needed

SPECIFIC FINDINGS

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ Ensure that the periodontal charting is readable.
- ▶ **Highlight**, surround, point to, or **zoom in** on areas of interest.



PERIODONTAL CHARTING

- ▶ Class I malocclusion, due to lower anterior crowding

DIAGNOSIS

- ▶ 1 slide
- ▶ Include graphics as needed

PROBLEM LIST

D1 BASIC SCIENCE QUESTION

How does tooth movement and bone remodeling occur?



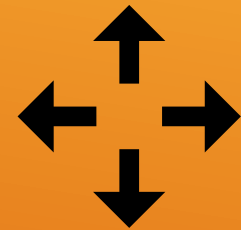
Force
loading



Sites of
compression
and
tension



Bone remodeling
cell activity



Tooth
movement

- ▶ **1-2 slides** (Summarizes written report in D2 Pathology Template posted in Rounds Website.)
- ▶ **D2 Pathology Question:**
- ▶ **Discussion:**
- ▶ **Reference citation(s):**

D2 PATHOLOGY

Optional footer for reference citations or other notes. Delete if not needed.

► **Clinical Question:**

D3 PICO

Optional footer for reference citations or other notes. Delete if not needed.

P:

I:

C:

O:

PICO FORMAT

Optional footer for reference citations or other notes. Delete if not needed.

PICO FORMATTED QUESTION

Optional footer for reference citations or other notes. Delete if not needed.

CLINICAL BOTTOM LINE

Optional footer for reference citations or other notes. Delete if not needed.

20

Template
Revised
9/10/2020

- ▶ **Date(s) of Search:**
- ▶ **Database(s) Used:**
- ▶ **Search Strategy/Keywords:**

SEARCH BACKGROUND

Optional footer for reference citations or other notes. Delete if not needed.

► **MESH terms used:**

SEARCH BACKGROUND

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ Citation: Authors, Title, Journal, Date, Volume, Page Numbers.
- ▶ Study Design:
- ▶ Study Need / Purpose:

ARTICLE 1 CITATION, INTRODUCTION

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ 1-2 slides
- ▶ Method
- ▶ Results
- ▶ Conclusions
- ▶ Limitations

ARTICLE 1 SYNOPSIS

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ 1 slide
- ▶ Reason for selection
- ▶ Applicability to your patient
- ▶ Implications

ARTICLE 1 SELECTION

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ Citation: Authors, Title, Journal, Date, Volume, Page Numbers.
- ▶ Study Design:
- ▶ Study Need / Purpose:

ARTICLE 2 CITATION, INTRODUCTION

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ 1-2 slides
- ▶ Method
- ▶ Results
- ▶ Conclusions
- ▶ Limitations

ARTICLE 2 SYNOPSIS

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ 1 slide
- ▶ Reason for selection
- ▶ Applicability to your patient
- ▶ Implications

ARTICLE 2 SELECTION

Optional footer for reference citations or other notes. Delete if not needed.

- ☐ **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)
- ☐ **1b** – Individual RCT
- ☐ **2a** – Systematic Review of Cohort Studies
- ☐ **2b** – Individual Cohort Study
- ☐ **3** – Cross-sectional Studies, Ecologic Studies, “Outcomes” Research
- ☐ **4a** – Systematic Review of Case Control Studies
- ☐ **4b** – Individual Case Control Study
- ☐ **5** – Case Series, Case Reports
- ☐ **6** – Expert Opinion without explicit critical appraisal, Narrative Review
- ☐ **7** – Animal Research
- ☐ **8** – In Vitro Research

<input type="checkbox"/>	A – Consistent, good quality patient oriented evidence
<input type="checkbox"/>	B – Inconsistent or limited quality patient oriented evidence
<input type="checkbox"/>	C – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening

How does the evidence apply to this patient?

- ▶ Consider/weigh:
 - ▶ Literature
 - ▶ Group Leader & Specialist experience
 - ▶ Patient circumstances & preferences

Based on the above considerations, how will you advise your D4?

CONCLUSIONS: D3

Optional footer for reference citations or other notes. Delete if not needed.

Based on your D3's bottom line recommendations,
how will you **advise** your patient?

How will you **help** your patient?

CONCLUSIONS: D4

Optional footer for reference citations or other notes. Delete if not needed.

- ▶ 1-2 slides
- ▶ List posted discussion questions
- ▶ Questions may also be from Group Leader or Specialist

DISCUSSION QUESTIONS

Optional footer for reference citations or other notes. Delete if not needed.

DISCUSSION QUESTIONS

Optional footer for reference citations or other notes. Delete if not needed.