1. Diagnosis and Treatment Planning - Slide 1

Diagnosis and Treatment Planning

- Indications
- Contraindications
- Initial Evaluation
- Mounted diagnostic casts - uses
- Surgical Templates

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2. 'Implant Dentistry at the Focus of Liability Lawsuits'

“Implant Dentistry at the Focus of Liability Lawsuits”

- “While the majority of judgments referred to the obligation to take due care during the preparatory and treatment phases, infringement of the obligations to provide information and keep records played more than a minor role.”

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3. Implant Dentistry Step Sheet (1)

<table>
<thead>
<tr>
<th>Predoctoral student</th>
<th>Implant dentistry step sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record#</td>
<td></td>
</tr>
<tr>
<td>Patient Name:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Student Name:</td>
<td></td>
</tr>
<tr>
<td>Class:</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>1. Initial Implant Consultation/Medical Clearance* Informed Consent Given to Patient: __________ Patient Initial: __________</td>
<td></td>
</tr>
<tr>
<td>2. Panoramic radiograph with implant markers—Sequence for par (see images)</td>
<td></td>
</tr>
<tr>
<td>3. Diagnostic Fee Paid (use fee schedule 00160–5 points) This fee pays for everything on this step sheet, including the surgical template.</td>
<td></td>
</tr>
<tr>
<td>4. Prosthodontics Diagnostic Procedure:</td>
<td></td>
</tr>
<tr>
<td>a. Diagnostic Impression, Facebow and Centric Relation Record and</td>
<td></td>
</tr>
<tr>
<td>b. Tooth Selection: Mold and Shade—Use Tooth Card</td>
<td></td>
</tr>
<tr>
<td>5. Prosthodontics Department Sign Off with mounted cast/record (without patient): Suggested Number of Implants: Place a “N” (narrow), “R” (regular), “W” (wide) in proposed position:</td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15</td>
<td></td>
</tr>
<tr>
<td>16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td></td>
</tr>
<tr>
<td>Comments: ____________</td>
<td>Prosthodontic Instructor</td>
</tr>
</tbody>
</table>

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4. Implant Dentistry Step Sheet (2)

<table>
<thead>
<tr>
<th>Predoctoral student</th>
<th>Implant dentistry step sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record#</td>
<td></td>
</tr>
<tr>
<td>Patient Name:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Student Name:</td>
<td></td>
</tr>
<tr>
<td>Class:</td>
<td></td>
</tr>
<tr>
<td>LAB</td>
<td></td>
</tr>
<tr>
<td>4. Diagnostic Wax-Up: Use record base and denture tooth/tooth for try-in</td>
<td></td>
</tr>
<tr>
<td>5. Surgical Patient Consultation/Surgical Informed Consent: Patient Initial: __________ Estimate of Cost (including possible augmentation): __________</td>
<td></td>
</tr>
<tr>
<td>Proposed Implant Number:</td>
<td></td>
</tr>
<tr>
<td>Place a “N” (narrow), “R” (regular), “W” (wide) in proposed position:</td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15</td>
<td></td>
</tr>
<tr>
<td>16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td></td>
</tr>
<tr>
<td>Comments: ____________</td>
<td>Prosthodontic Instructor</td>
</tr>
</tbody>
</table>

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5. Implant Dentistry Step Sheet (3)

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7. Indications: (1)

**Indications:**

- Edentulous Ridge – Branemark’s Research – 53 years (1952)
- Single Tooth Loss Research – 33 years
- Extraoral Prosthesis – Maxillofacial & appendages (hands, arms, legs)

8. Diagnosis and Treatment: Slide 8
11. Diagnosis and Treatment: Slide 11

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12. Indications: (2)

Indications:

- Unreal denture expectations
- Psychological inability to wear a removable prosthesis
- Dental Phobia
- Unfavorable morphological conditions for a denture
- Class III and IV Edentulous Classes

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13. Diagnosis and Treatment: Slide 13

14. Indications: (3)

**Indications:**

- Poor oral muscular coordination
- Parafunctional Habits
- Gag reflex

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15. **Indications: (4)**

**Indications:**

- Low tolerance of mucosal tissues
- Unfavorable position and number of remaining teeth
- Congenital deformities, e.g., Ectodermal Dysplasia
- Maxillofacial Prosthetic Patients

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16. **Diagnosis and Treatment: Slide 16**

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17. Diagnosis and Treatment: Slide 17

18. General Health:

**General Health:**

- Medical History – Indications and Contraindications
- In simple terms for patient: if you can tolerate a routine OMFS procedure (e.g., an extraction), you can tolerate an implant placement

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19. ‘Not’ Contraindications:

“Not” Contraindications:

* Radiation Therapy
* Diabetes
* Corticosteroid therapy
* Other medical conditions – seek physician advice. Educate physician as needed.
* Age

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20. Age Considerations- How Young?

Age Considerations- How Young?

* Females: @ 16-17 years of age…?
* Males: in their early 20's…?
* “When the jaws have stopped growing”
* Whenever possible, wait till 20’s.
* Exception: Young Maxillofacial Patients

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21. Osteoporosis

Osteoporosis

* When osteoporotics lose teeth/heal, they lose more bone than the normal patient.
* The successful integration of healthy implants prevents or reduces future bone resorption.
* With careful monitoring and additional healing time, these patients can be treated as well as patients without the disease.

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22. Patient Contraindications - Absolute: (1)

Patient Contraindications - Absolute:

* Alcohol or Drug Abuse
* Psychological
* Debilitating or uncontrolled Disease
* Pregnancy
* Poor patient Motivation

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23. Patient Contraindications - Absolute: (2)

Patient Contraindications - Absolute:

- Inability to manage Oral Hygiene
- Unattainable prosthodontic reconstruction
- Fibrodysplasia

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24. Patient Contraindications - Absolute (Psych):

Patient Contraindications – Absolute (Psych):

- Psychotic Syndrome
- Severe character disorder
- Syndromes of cerebral lesions (senile dementia or Alzheimer’s Disease)
- Dysmorphophobia

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25. Dyssmorphismophobia:

Dyssmorphismophobia:

* Fear of looking abnormal or unrealistic expectations

26. Smokers

Smokers


Percentage of Failures

Nonsmokers: 4.76%
Smokers: 11.28%
Significant except for posterior mandible

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27. Smoking

**Smoking**

* Smokers who quit one week before implant surgery and for 8 weeks following implant surgery and non-smokers had no significant differences between failure rates.

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28. Dentist Contraindications:

**Dentist Contraindications:**

* Lack of adequate training
  Graduates from Tufts learn: Lower implant overdenture with two ball attachments, selected single implant crowns, selected 2-3 unit implant fixed partial dentures.
  50% of the class will have clinic pt.

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29. Initial Evaluation

**Initial Evaluation**

- Medical History
- Clinical Examination with palpation
- Radiographs: *Panoramic* and FMX (CT Scan – if surgeon decides - later)
- Psychological Assessment – informal or formal (Psychiatrist – BSI)
- Fee Discussion

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30. Examination

**Examination**

- Visual and radiograph: height and width of ridge (H 10mm; W 6 mm)
- Interridge distance (H 6 mm per arch)
- Esthetics (lip line)
- Existing prosthesis (lip support)

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31. Diagnosis and Treatment: Slide 31

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32. Diagnosis and Treatment: Slide 32

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33. Diagnosis and Treatment: Slide 33

34. Diagnosis and Treatment: Slide 34

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35. Evaluation of Radiograph

Evaluation of Radiograph

- Height and width of bone
- Presence of infection
- Anatomic landmarks: e.g., sinus and inferior alveolar nerve

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36. Diagnosis and Treatment: Slide 36

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37. Diagnosis and Treatment: Slide 37

38. Diagnosis and Treatment Planning

Diagnosis & Treatment Planning

* Diagnostic Mounting
39. Purpose of Mounted Diagnostic Casts (1)

PURPOSE OF MOUNTED DIAGNOSTIC CASTS

✦ Anatomic considerations for prosthetic design
✦ Diagnostic wax-up for try-in of teeth
✦ Surgical template fabrication

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40. Purpose of Mounted Diagnostic Casts (2)

PURPOSE OF MOUNTED DIAGNOSTIC CASTS

✦ Fabrication of interim prostheses (transitional crowns, fixed partial dentures, removable partial dentures and transitional/interim complete dentures)

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41. Evaluation of Mounted Casts: Anatomic Considerations (1)

EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS

1. Class I, II, III

42. Evaluation of Mounted Casts: Anatomic Considerations (2)

EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS

2. Interridge distance (need about 6 mm each arch)
3. Super-eruption of opposing teeth
Evaluation of Mounted Casts: Anatomic Considerations (3)

**EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS**

4. Width of edentulous space: mesio-distally (about 6mm) and buccolingually
5. Height of ridge crest compared to adjacent natural teeth

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Diagnosis and Treatment: Slide 44

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45. Diagnosis and Treatment: Slide 45

46. Diagnosis and Treatment: Slide 46
Diagnosis and Treatment: Slide 47

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Diagnosis and Treatment: Slide 48

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49. Evaluation of Mounted Casts: Anatomic Considerations (4)

EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS

6. Occlusal plane

50. Diagnosis and Treatment: Slide 50
51. Diagnosis and Treatment: Slide 51

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52. Diagnosis and Treatment: Slide 52

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53. Evaluation of Mounted Casts: Anatomic Considerations (5)

EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS

7. Buccal and lingual concavities (need for ridge augmentation)

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54. Diagnosis and Treatment: Slide 54

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55. Evaluation of Mounted Casts: Anatomic Considerations (6)

EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS

8. Amount of bone loss in edentulous patients

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56. Diagnosis and Treatment: Slide 56

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57. Diagnosis and Treatment: Slide 57

![Image of a mounted dental cast]

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58. Evaluation of Mounted Casts: Anatomic Considerations (7)

**EVALUATION OF MOUNTED CASTS: ANATOMIC CONSIDERATIONS**

9. Esthetic considerations - high lipline/lip support

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59. Diagnosis and Treatment: Slide 59

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60. Diagnosis and Treatment: Slide 60

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61. Diagnosis and Treatment: Slide 61

62. Diagnosis and Treatment: Slide 62
63. Diagnosis and Treatment: Slide 63

64. Purpose of Wax Try-In

PURPOSE OF WAX TRY-IN

- Verification of all records
- Esthetics-patient approval of tooth position/shade
- Final determination of implant position/feasibility
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66. Diagnosis and Treatment: Slide 66

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69. Diagnosis and Treatment: Slide 69

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70. Purpose of Surgical Template

PURPOSE OF SURGICAL TEMPLATE

* To guide the surgeon to the ideal implant position

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71. Types of Surgical Templates

TYPES OF SURGICAL TEMPLATES
★ Processed acrylic resin
★ Autopolymerized acrylic resin
★ With or without radiopaque markers

72. Diagnosis and Treatment: Slide 72
73. Diagnosis and Treatment: Slide 73

74. Diagnosis and Treatment: Slide 74
Surgical Template

- Use denture duplicator flask

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Diagnosis and Treatment: Slide 76

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Diagnosis and Treatment: Slide 77

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Diagnosis and Treatment: Slide 78

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79. Diagnosis and Treatment: Slide 79

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80. Diagnosis and Treatment: Slide 80

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81. Diagnosis and Treatment: Slide 82

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82. Diagnosis and Treatment: Slide 83

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83. Diagnosis and Treatment: Slide 84

84. Diagnosis and Treatment: Slide 85
85. Always try-in the surgical template before the surgical appointment!

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86. Diagnosis and Treatment: Slide 87

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87. Interim Prosthesis

Interim Prosthesis

88. Diagnosis and Treatment: Slide 89
89. Diagnosis and Treatment: Slide 90

90. Diagnosis and Treatment: Slide 91
91. Diagnosis and Treatment: Slide 92

92. Diagnosis and Treatment: Slide 93
93. Diagnosis and Treatment: Slide 94

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