Module 1
ADVANCED TREATMENT PLANNING MASTERTRACK: Many Recipes for Success

### Disclaimer
- TODS Meeting
- Pacific Dental Conference
- Dentsply Sirona
- The 17th annual Toothfairy Gala
- Scotia Bank

### Course Objectives
- *Treatment Planning for Success.*
- *Allowing patients to remain engaged in their dentistry over their lifetimes.*
  - Fixed prosthetics; based on patient budgets and expectations.
- *Sequencing care for optimal outcomes.*
- *CBCT Planning for implant success.*
- *Surgical guides: Tissue borne and bone braced.*
- *Review of your challenging cases!*
- *Critical thinking and financial planning how to make a case work!*  
  - How to "compromise" without "compromising" on their care.
- *Dentistry in this economic climate-the key is to stay within their budget!*  
  - *Dialogues for successful treatment planning.*

### General Dentistry as a Specialty
- General Dentistry: evaluation, diagnosis, prevention treatment of diseases, disorders, conditions of the oral cavity
- Provided by a dentist within the scope of his/her education, training and experience
- 1997 House of Delegates ADA

### Treatment Planning Axiom: Involve the Patient!

“Upgradeable Dentistry” is a concept that allows people the dignity to choose options that will improve their oral health in a sequential fashion; based on their emotional, financial, and personal readiness. Richard Winter D.D.S.
**Upgradeable Dentistry**

**ORIGINAL DIAGNOSIS**
Severe Gum Disease, Periodontal Disease, tooth loss, poor fitting dentures or partials

Conventional Dentures → Dentures and partials lead to bone loss. ← Turbyfill Deluxe Dentures

**UPGRADEABLE PATH BEGINS WITH PROPER FOUNDATION**

Available Bone Quality and Quantity:
1. Deficient width: block graft from chin, ramus, hip.
2. Biologics like Infuse or Bone Morphogenic Proteins.
3. Ridge spreading and interpositional grafting—spreading bone to allow for implant placement

ADEQUATE BONE ← DEFICIENT BONE/POOR FOUNDATION

Implants ← Grow the bone via bone grafting

**TREATMENT DECISIONS**

Least Expensive: Dentures (remade or relined every 3-5 years). Bone loss continues.

Moderate Price: removable mini-implants to support dentures

Removable: snap-on dentures or partials. Implant retained, but still sits on bone

Fixed Hybrids: Screw or cement. Lower cost, but not removable retained dentures.

Best Option: Fixed Teeth
Porcelain bridges, Zirconia bridges. Preserves bone, chewing forces similar to natural teeth, no need to remove at night

*Upgradeable Dentistry is a continuum that allows people to move from A to B to C or all the way to E as they desire and can afford. This decision is based upon a person’s desires, finances, health and cosmetic concerns. “Treatment Planning is a Dynamic Process, not a static event.” By Dr. Richard Winter*
• An NIDR survey showed that 12 million people in the U.S. are edentulous in one arch. (7% of population)
• In 2002 total edentulism occurred in 7.7% of the adult population or 20 million people.
• While edentulism is decreasing, aging adults are increasing in number so people needing dentures will increase from 33.6 million adults in 1991 to 37.9 million in 2020.
• Edentulous arches projected to be 59.3 million this year! and 61 million in 2020.
• Adding partially edentulous ridges to the equation means 30% of the U.S. adult population are candidates for partials or dentures.
• 74 million people are potential candidates for implant dentistry.

Is this patient simply a new denture?
• The first option for most patients; removable dentures will result in bone loss, poor nutrition, stomach and digestive problems and should be thought of as a temporary restoration.

Dynamic Treatment Planning
• Today’s concepts:
  • “Begin with the end in mind”- Stephen Covey. Dentistry is a dynamic process not a static event.
  • How do you treatment plan a new patient?

Treatment Planning Edentulism
  I. Dentures: Standard or Turbyfill.
  II. Dentures: Mini-Implant Retained: Soft tissue supported denture.
  V. Dentures: RP-4 Fully Implant Supported: Fixed or Cementable Hybrids.

Consequences of Edentulism
• Decreased width and height of supporting bone.
• Prominent mylohyoid and internal obliques leading to increased denture sores.
• Decrease in keratinized mucosa.
• Prominent genial tubercles.
• Elevation of prostheses with contraction of mylohyoid and buccinator muscles
• Tongue hypertrophy from increased use with dentures
• Exposure of neurovascular bundles leading to pain, burning and sores with increased denture movement.
- Mandibular dentures have been reported to move up to ½ an inch during normal chewing patterns.

**Evaluate Before Operate**
- Before making a denture-listen and look.
- How many dentures have they had? Did they like any of them?
- Do they have a list of criterion and ask for an iron clad guarantee?
- Do they seem nice and realistic in their goals?
- Based on what you see-can you justify their concerns?

**Past Performance Indicates Future Success**
- Opposing tooth? Or insufficient clearance
- Mesh wire repairs are due to spreading. Force of non-existent posterior teeth.
- Loss of cusps led to acrylic failure spreading, midline fracture, superglue multiple repairs and eventual dental visit
- This patient learned the hard way repairs don’t last. Spreading forces from lack of bilateral occlusion will not only cost more but you will be without teeth when they break

**What do you know about these patients?**
- Frugal-will pay for repairs
- They weren’t educated about 3-5 year rule!
- This is an opportunity to STOP and educate them about their health...now and ...future.
- Band Aids are expensive= bone loss
- Vanity: Mrs. Jones, “Do you know when these will break again?”

**Dialogues**
- “I need a new set of dentures.”
- Gauge Satisfaction with previous sets.
- Discuss end point of treatment and 3-5 year rule.
- Give options to Upgrade now or in future.
- What are dentures?

**Dentures as a Diagnostic Tool**
- Ridge Type?
- Previous Satisfaction?
- Soft Liners?
- Success/Ivocap?
- Impression?
- Retention?
- Options?
### Principles of Denture Design

- Functionally generated impressions
- Mucostatic impression technique
- Facebow transfer
- Stable baseplate and rims
- Tooth selection
- Vertical dimension and bite registration
- Dress rehearsal or set up of anterior maxillary 6 and mandibular incisors
- Full try in of all teeth after necessary resets
- Process dentures and delivery
- Occlusion and fine tuning of bite
- Post-operative instructions
- Get paid before final delivery—the paid for denture always fits better.

### Standard Denture

- Preliminary impressions
- Bite Registration
- Facebow
- Tooth selection
- Try-ins
- Delivery
- Standard Processing

### Turbyfill Denture

- Preliminary Impressions
- Functionally generated impressions
- Bite Registration/central bearing point
- Tooth selection
- Set teeth chairside
- Process and deliver learning dentures with tissue conditioner
- Posterior bite block
- Modified Branching technique
- Receive dentures back with hydrocast jigs
- Finalize with tissue conditioner for functionally generated impressions
- Box and pour and return to lab
- Final processing with Lucisoft soft liner, characterization
- Final delivery and fine tuning of occlusion with lab remount if needed.

### Functionally Generated Impressions

Impressions of overly compressed, traumatized ridges will result in ill fitting dentures that perpetuate soft tissue problems.
**Turbyfill Deluxe Dentures**
- Turbyfills in brief: setting teeth with patient present
- Esthetics, phonetics, and function
- Silicone liners, denture base tinting

**Dentures Are the Prototypic Restoration**
- Standard dentures or Turbyfill Deluxe dentures
- Educate patients about limitations and bone loss from the beginning
- Own the problem
- Educate about the solution – Advanced Treatment Discussions

**Steps to Turbyfill Dentures**
- Take a good impression
- Accugel-mucostatic
- Massad trays with Aquasil-heavy for stops, medium for entire arch
- Facebow transfer
- Wax-out undercuts and make baseplates and rims with shellac or triad
- Set teeth chairside
- Mount at appropriate vertical
- Misch Vertical
- Try-in
- VDO,VDR
- Eye-Lip
- Eye-Eye
- Nose-Chin
- Finalization
- Delivery and lab remount
- Occlusal indicator wax

**Wax Rim-Maxillary**
- Sticky wax on baseplate-triad, shellac
- Roll softened pink wax on to sticky wax baseplate and form into shape of ridge, (square, ovoid, etc.)
- Buccal-lingual width is approximated to size of denture teeth that will be placed.
- Occlusal plane made using heated Swissdent rim former, placed on hamular notches, and pressed until 20mm of height exists from height of rim to vestibule.
- Heated spatula smooths wax on labial and lingual.

**Mandibular Wax Rim**
- Sticky wax is placed on the lower baseplate and then triangular “speaking wax” is luted to the baseplate at it’s midline.
- Length is 18mm from depth of vestibule and width is size of 2 lower centrals.
- No rim is placed posteriorly for now.
- Make sure rims are comfortable and short of vestibule and wax rims are used to build lip contours and establish “neutral zone” formation.
- Have patient count from 1-10 and 50-60 for approximate rim correctness. Establish “F” and “V” positions just inside mandibular Vermillion border.
- Move lower speaking wax buccally or lingually to achieve “s” position or “closest speaking space”.

**Vertical Dimension of Occlusion**
- Verticalometer
- Misch techniques
- Vertical dimension of rest
- Interocclusal space
- Tongue movement and size
- Using phonetics and vertical dimension measurements are all used in conjunction with each other to achieve ideal esthetics, phonetics and function.

**Verticalometer**
- Measure from Nasion to Philtrum of nose=A
- Measure Nasion to point of intersection of lips=B
- Measure Nasion to tip of chin=C
- C should equal B+A This represents facial thirds

**Misch Technique**
- There is a correlation between measurements:
  - Outer canthus of eye to corner of lip
  - Length of ear

**Central Bearing Points**
- Cobel Balancers allow the mandible to pivot and seat condyles into bone braced position within the Glenoid Fossa.
- Alternatively a functional technique with Delar bite registration wax can seat mandible.

**Seating Condyle Key to Final Denture Occlusion**
- Bite registrations can be chilled and checked for accuracy repeatedly.
- Delar wax
- Record “acquired centric occlusion”

**Facebow Mounting**
- After maxillary teeth are set, speaking space is established, vertical dimension is approximated, and bite registration is recorded
- A semi-adjustable articulator is preferred with an adjustable incisal guide table and guide pin.
- Set condyles at 20 degrees and posts at 15 degrees.

**Tooth Selection**
- Facial type
- Photos
- 1:16 gauge
- Mould guides
- Artistic license
- Play around
- Kay See or Trubyte face form analyzer
- Measure width 1” from corner of eye
- Measure length from hairline to bottom of chin-if my type of hairline-use top visible wrinkle.
- Mold shape= facial shape
- “Heart and Imagination.” Square tapering most common mold.

- Mould selection will become second nature
- Placing teeth on rope wax
- Place 1 central at a time. 1-10,50-60, vermilion border contact at normal speaking speed.
- The poem “If” can be used throughout the process.
- Place second central-insure they are flat on the paddle, parallel to interpupillary line and perpendicular to sagittal plane.
- Most haven’t done this since dental school-and most never will but can really save time—especially for economy dentures.

**Lang Duplicates**
- Functional impressions can be taken in a person’s existing denture or a lang duplicate.
- Duplicates can be used to work out occlusion and deliver incisal edge position, esthetics, and phonetics information to the lab on complex restorative cases

These dental labs can help:
- Nucraft Dental Lab: Athens GA. 1-800-241-8614 contact John Zarb
- Lab One Norfolk, VA 1-800-448-7889 contact Tommy Schmitt
- Pittman Dental Lab: Gainsville, GA 1-800-235-4720 contact Bill Metheny
- Rapa Dental Ceramics: 1-727-781-7885

These labs can help with the initial learning curve.

“A man convinced against his will is of the same opinion still”
Let your patients emote and give their opinion—but make sure they don’t stare or start performing lip gymnastics. This is true for the try in and for final delivery.
## Dentures: What’s Next?

- “Mrs. Jones” I would love to be able to offer you options that will improve your chewing, comfort and preserve your bone going forward, would you like to hear about your options to complete dentures?
- Certain options will allow you to preserve bone. Tooth removal leads to your sinus’s expanding, and bone loss.
- Ideally we would like to put something back in the bone to preserve it. Some of your options are: [CARE CREDIT]

## Why are dentures important?

- Prototype restoration
- Blue Print
- Gauge patient satisfaction
- Fiduciary Markers for CBCT
- Advanced Implant planning

## Summary

- Turbyfill Dentures-fees can be from double to four times what you charge for a conventional denture. Lab bill can be $1000 so set fees according to your needs. I charge $5500 per Turbyfill denture. I feel this money should be spent on implants so I do a lot fewer than I used to but they do have a place in your practices!
- Offer embarrassment dentures to everyone, either you make them or have the lab provide when the denture is made. $450 is a fair fee (lab fee $100) Fiduciary markers for implants!
- Let patients know that the best denture is a “provisional prosthesis” as continued wear will result in bone loss, need for reline and remake every 3-5 years and you will help them Upgrade as they are ready.
- Order your own denture teeth to get lab discounts and make your own baseplates, custom trays, wax-rims and start setting your own anterior teeth to really learn denture dentistry.
- Duplicate dentures so you can condition tissue, improve vertical--build up posteriors with triad--and finalize to send to lab so they can have a functional impression, incisal edge position, emergence angle and profile, neutral zone impression and a high likely hood of success.
- Save roots and you will save bone! Save them by doing root canals, locator attachments and overdentures. You can charge for the root canal, the locator, the housing and pick up of the coping into the denture. A new denture is needed if you didn’t make it if it is ill-fitting as you don’t want eccentric forces on an attachment. You want them for retention, not support.