Innovative Periodontics for the Successful Practice

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Dentist Hygienist interactions

What is going well?

What are some of the challenges?

What is your vision for the hygiene area?

Describe your ideal hygiene dentist interaction?

Routine, effective treatment for periodontal infection is needed

- Despite the prevalence of periodontal infection and the persistent nature of bacteria and biofilms, more than 70% of dental practices do not perform regular full-mouth probing and charting.

- Although 3 out of 4 American adults are affected by periodontal disease:
  - Prophylaxis procedures outnumber SRP procedures by a ratio of 20:1
  - Less than 1/2 of periodontal pockets are treated with adjunctive therapy.

5 Commitments to Achieving Success in Periodontics

- Commit to the comprehensive perio exam

Current Concepts of Periodontitis

1. Biofilms
2. Sites
3. Episodic

Periodontal Tissues in Health and Disease
**A Periodontal Growth Center**

- Greatest potential is periodontics
- Assess fee for periodontal probing
- Diagnosis must be the forerunner
- Apply high technology tool
- Education = treatment acceptance

Roger Levin  
Dental Economics

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**Periodontitis and Systemic Diseases - Proceedings of a workshop jointly held by the European Federation of Periodontology and American Academy of Periodontology APRIL, 2013**

- strong epidemiologic evidence that periodontitis provides an increased risk for future cardiovascular disease
- independent association between moderate to severe periodontitis and an increased risk for the development or progression of diabetes.

  - www.perio.org

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**Gingivitis**

- Condition is reversible
- But, if left untreated may progress to periodontitis with loss of attachment of connective tissue and eventual loss of supporting bone.

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**Periodontitis**

- Disease of tooth supporting structure
- Exhibits pathologic changes in the periodontium (irreversible)
- Caused by bacterial plaque
- Usually develops from pre-existing gingivitis

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**Chronic Periodontitis**

- Adult periodontitis
- Umbrella term for a number of disease syndromes
- 25 to 50% of the population
- Rapid or slow with periods of exacerbation and remission
- Variety of microbial flora
**Aggressive Periodontitis**

- Generalized or localized juvenile periodontitis
- Pre-puberty periodontitis
- Rapidly advancing periodontitis
- Refractory periodontitis

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**Model of Risk Factor Interaction in Human Periodontal Disease**

- Environmental Challenge
- Host Response
- Periodontal destruction
- Unique Periodontal Anatomy

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**Occlusion must be stabilized in Aggressive Periodontitis!**

- Initial or progressive mobility is major factor
- Primary occlusal trauma
  - Occlusal adjustment
  - Occlusal guard
- Secondary occlusal trauma
  - Occlusal adjustment - no fremitus
  - Occlusal guard
  - Splint?

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**Predicting Periodontal Prognosis**

1. Increasing pocket depth
2. Furcation involvement
3. Mobility
4. Crown root ratio
5. Smoking
6. Restorative dentistry

McGuire, 1995

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**Age**

- Local Factors (subgingival calculus, plaque)
- Periodontitis (attachment loss, bone loss)

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**“Resistance”**

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**Age**

- Local Factors (subgingival calculus, plaque)
- Periodontitis (attachment loss, radiographic bone loss)

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**“Susceptibility”**
Dental History is critical in formulating a patient’s periodontal status

- Familiar history
- Medical status
- Smoking habit
- Stress activity
- Parafunctional habits

“Knowing” your patient

- Who was your previous dentist .experiences
- Any symptoms of gum disease
- Has any dentist mentioned gum disease
- When was your last “cleaning”? Frequency?
- Brothers, sisters, parents.. any history of gum disease
- Tobacco use?!
- Grind or clench your teeth..?

Data Collection

- Radiographic Exam
- Probing
- Tissue Characteristics
- Mobility

Vertical Bitewings

- Alveolar Crest Height
- Pattern of Bone Loss
- CEJ
- Dentition Related Pathology

UNC12 and UNC15
**Depth of Sulcus Critical!!**

- Angulation
- Pseudopockets
- Bleeding

**D0180 Comprehensive periodontal evaluation**

- New or established patients
- Can be proceeded by D0150 (PSR)
- Evaluation of periodontal condition:
  - 
  - 
  - 

**Furcation Involvement**

- Class I
- Class II
- Class II+
- Class III

**COLORVUE® PERIOSCREEN™ PROBE**

- Points of Performance
  - Easy-to-read red and green color-coding system
  - Large ergonomic handle
  - Environmentally-friendly

www.PreViser.com
Periodontitis ....
the “elevator speech”

- Periodontitis is the body’s reaction to a stimulus resulting in an overactive response to produce inflammatory mediators that destroy its own healthy cells....
- Auto immune ??

Activity of the Inflammatory System is at the Center of Major Human Diseases

- Atherosclerotic Heart Disease
- Asthma
- Alzheimer’s Disease
- Diabetic Complications
- Obesity
- Osteoporosis
- Gastric cancer
- Osteoarthritis
- Periodontal disease
- Rheumatoid Arthritis

Novel Treatment strategies

- Omega 3
- Aspirin
- Probiotics: Oragenics
- Topical Antioxidants: Perioscience

Periodontal Disease and Systemic Disease Links

Next Generation Technology

<table>
<thead>
<tr>
<th>Topically Applied Antioxidants</th>
<th>Chlorhexidine</th>
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<tbody>
<tr>
<td>Anti-bacterial Effect</td>
<td>Anti-bacterial Effect</td>
</tr>
<tr>
<td>Wound Healing Effect</td>
<td>Wound Healing Effect</td>
</tr>
<tr>
<td>Anti-inflammatory Effect</td>
<td>Anti-inflammatory Effect</td>
</tr>
<tr>
<td>No Teeth Staining</td>
<td>No Teeth Staining</td>
</tr>
<tr>
<td>High Patient Compliance</td>
<td>High Patient Compliance</td>
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References:

Which club…….

- **Green** Dot Club: Gingivitis 67%
- **Red** Dot Club: Periodontitis 33%
5 Commitments to Achieving Success in Periodontics

- Commit to the comprehensive perio exam
- Define staff skills and limitations - manuals

Decision-Making

Traditional Management
1. Guessing
2. Defend the status quo
3. Crisis management and blame
4. Dentist only
- 85% blame people
- 15% system improvement

TQM/DQM Style
1. Data Collection and problem diagnosis
2. Continuous improvement
3. Preparation and organization
4. Dental TEAM
- 85% system improvement
- 15% blame people

Dental Hygienist “Burnout”

- Turnover in practices......... 18 months
- Career Life expectancy....... 8 years
- Exit Reasons
  - Family
  - Work hours
  - Infectious diseases
  - Money
  - No opportunity

Dental Hygiene

- Full time............................... 50%
- Part time............................... 32%
- Salaried................................. 70%
- Commission......................... 15%
A compensation program for the dental hygienist...

- 85% salary
- 15% bonus
- Productivity with attention to A/R
- Cancellations/no shows
- Absenteeism
- Team building
- Creativity

Increasing Hygiene Productivity...........

- 40% of services beyond the prophy
- 50% of dentist’s production from hygiene operatories
- 30% increase in hygiene production using an assistant
- Take advantage of advanced technology
- No treatment plan presentations in hygiene operatories

Roger Levin
Dental Economics
December 1995

“Those hygienists are running late!

Patients
Reception Area
Supplies/Darkroom

Doctor
Appointments

LATE!

Budgeting the Dental Hygiene Area

- Hygiene Compensation........... 33%
  = Salary
  = Taxes
  = Fringe Benefits
  = Uniforms
  = Continuing Education

Hygiene productivity

- Do periodontal exams!
- Review RDH production monthly
- Hygienists must use technology
- Educate patients
- Reinforce treatment plans
- Know your dentist!

Phase I Therapy

- Gross Debridement
- Oral Hygiene Instruction
- Definitive Debridement
- Caries Control
- Occlusal Therapy
- Endodontic Therapy
- Extraction of Hopeless Teeth
- Provisionals
Gross Debridement

A Practice-Based Study of a Power Toothbrush: Assessment of Effectiveness and Acceptance

<table>
<thead>
<tr>
<th>Regimen Group</th>
<th>Control</th>
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Probiotics

Defined as the daily administration of certain live microorganisms in amounts adequate to confer a health benefit on the host.

How do I manage Patients with poor plaque control??

- Document in records
- Increase frequency of recare
- Place emphasis gently-do not challenge!
- Power toothbrushes
- Rinses after debridement
- Local delivery antimicrobials
**Definitions of a “Cleaning”**

- Scaling: Instrumentation to remove supragingival uncalcified and calcified accretions and all gross subgingival accretions.
- Root Planing: Instrumentation to remove the microbial flora on the root surface of lying free in the pocket, all flecks of calculus and all contaminated cementum and dentin.  
  » O’Leary 1986

**Categories of “Debridement”**

- Gross Debridement D4355
- Gingival Debridement D0110
- Periodontal Debridement D4341/4342
- Gingival recare D0110
- Periodontal recare D4910

**Heavy Debris Removal**

- Low-Medium power setting
- Triple bend tip designs

**Light Debris Removal**

- Low power setting
- Medium to Thin perio designs

**Limitations of Ultrasonic Instrumentation**

- Handpiece sterilization
- Altered tactile sensitivity
- Fluid control / evacuation
- Effects of noise, vibration
- Contaminated aerosol production

**Advantages of Ultrasonic Instrumentation**

- Reduced clinician fatigue
- Less repetitive stress
- Increased access
- Less tissue distension
- Potential for delivery
- Benefits of lavage
- Antimicrobial delivery
Instrumentation Protocol

- Debridement (Gross)
  - Ultrasonic: P-10 P-50

- Debridement (Gingivitis)
  - Ultrasonic: P - 50 (option P 10)
  - Polish

- Debridement (Periodontitis)
  - Ultrasonic: P - 50 P - 100 (option P 10)
  - Gracey Curettes: thin
  - Polish

Data Collection

- Tissue condition
  -

- Sulcus depth
  - Monitor radiographically

- Bleeding
- Mobility… failed implant!

Potential laser applications for periodontal therapy......

Diode Soft-Tissue Lasers

- Advantages:
  - bleeding or collateral damage to healthy tissue
  - Most cases - topical anesthetic is sufficient for a pain free procedure
  - Surgical precision
  - Little to no postoperative discomfort and a short healing time

Graphical User Interface

- Gorgeous, Intuitive, Streamlined
- 20 procedure presets put your most often performed soft tissue procedures at your fingertips

Advantages of Lasers in Surgical Procedures

- Laser Cut More Visible To Eye / Dry Field
- Laser Sterilizes Wound As It Cuts
- Decreased Post Operative Pain And Edema
- Decreased Post Operative Infection
  - The theory of “Sealing” and “Sterilizing” the wound?
- Less Wound Contraction And Scarring
Dual Wavelength

YSGG Advantages
• Best hard-tissue cutting
• Best soft-tissue cutting
• Deep Pocket Therapy
• Endo differentiation

iLase Advantages
• Setup in seconds for quick or unexpected soft-tissue needs
• Better hemostasis than YSGG
• Bendable tips might provide better access to certain locations
• Although we have not yet developed a protocol for iLase, Biolase diodes are FDA-cleared for temporary relief of minor pain

Soft Tissue
• De-epitheliate
• Degranulate
• Denature proteins
• Gingivectomy
• Inhibit epithelial migration…clot establishment

5 Commitments to Achieving Success in Periodontics
• Commit to the comprehensive perio exam
• Define staff skills and limitations-manuals
• Commit to the Phase I reevaluation

Exam - PSR (0150)
(0, 1, 2)
FMX

Gross Debrid (4355)
Oral Hygiene

Prophylaxis
OHI (01110)

Periodic Maintenance
(01110) (6 month intervals)

Exam - PSR (0150)
(3, 4)
FMX

Gross debridement
(4355)
Oral Hygiene
Periodontal Exam (0180)

Perio debridment
(4341)
4 Quads
2 - 4 appointments

Revaluation (Phase I)
(0170)
Perio Phase II Decisions

Periodontal Debridement/ Curettage

1. Pocket Depth: 4-5 mm
2. Local factors as calculus
3. Edematous
4. Single rooted
5. Horizontal Bone loss
6. Less Compliant

Perio Phase II Decisions

Surgical indications

1. Pocket depths 5mm greater
2. Minimal local factors as calculus
3. Fibrotic gingivae
4. Multi rooted
5. Angular bone loss
6. More compliant

5 Commitments to Achieving Success in Periodontics

• Commit to the comprehensive perio exam
• Define staff skills and limitations - manuals
• Commit to the Phase I reevaluation
• Commit to a recare appointment

Periodontal Recare

• Medical History
• Plaque Control PASS SCORE____% E
  – Recommendations:
• Areas of Concern

• Therapy Today
• Next recare/ Comments

The “60” minute recare

• 5 minutes: Seat patient
• 5 minutes: Update medical history
• 10 minutes: Clinical exam
  – BP, H&N, OH, Caries, Perio, etc...
• 25 minutes: Subgingival debridment
• 5 minutes: Supragingival debridment
• 5 minutes: Dismiss the patient
• 5 minutes: Write up chart

Indications for Systemic Antibiotics

• Juvenile Periodontitis
  – Localized vs. Generalized
• Rapidly Advancing Periodontitis
• Refractory Periodontitis
Local Delivery Antibiotics

- User-friendly
- Stays in place
- Requires no removal
- Enhances the effect of debridment

Impact of Local Adjuncts to Scaling and Root Planing in Periodontal Disease Therapy: A Systematic review
Bonito et al: J. Periodont August 2005

- Differences between SRP only favored treatment only but modestly. Effect on CAL were even less with a fraction of improvement.
- Tetracycline, minocycline, metronidazole, chlorhexidine.
- 10,700 articles to 599 to 50......

How do I manage Patients who are inconsistent with recare appointments??

- Document with records...mandatory
- Consider 2 appointments ...1 week apart...recare can not be completed in 1 appointment
- Consider rinses following recare
- Progressive periodontitis and caries

5 Commitments to Achieving Success in Periodontics

- Commit to the comprehensive peri exam
- Define staff skills and limitations - manuals
- Commit to the Phase I reevaluation
- Commit to a recare appointment
- Maintain a quality dialogue with your periodontist

Half of referrals to dental specialists go unfilled.... Kelton research 2008

- 46% of referrals do not show
- 50% Age 18 to 49 disregard referrals
- 39% Age >49 disregard referral
- Fundamental disconnect between patients needing care and the specialist community..
- Lost revenue $950 to $5,150.

What patients look for in a specialist..

- Human touch ..
  - Want specialist to be familiar with details of case
- Going extra mile
  - Call patient beforehand establish relationship..radiographs received
- Right experience
  - Has the expertise for their problem
What conditions should I consider referring in referring my patient to a periodontist?

- Probing depths ≥5 mm.
- Probing depths deepening
- Request dental implants
- Requires special periodontal surgery
- Atypical forms of periodontal disease

What should I expect from a periodontist?

- Open, frank, and continuing communication
- Thanks for the referral
- Written report
  - Exam, prognosis treatment plan, suggestions for restorative care
  - Discussion of recare schedule

At what stage in the treatment plan should I make the referral?

- Early before the restorative treatment plan is finalized
- Consider before Phase I

How should I make the referral?

- Explain periodontal disease to the patient
- Describe future periodontal treatment in general terms
- Tell patient about the periodontist’s training
- Make entry level in chart and every subsequent appointment if patient does not see periodontist

Who should I refer to?

- Treatment philosophy similar to yours
- Provides superior level of care
- Maintains a good relationship with you
- Has good patient rapport
- Conveniently located to your patients
- Provide patient with only one referral name

"The goal of my practice is simply to help my patients retain their teeth all of their lives if possible. . . . . . . . . . . . .
In maximum comfort, function, health, and esthetics"

Dr. L. D. Pankey