Health Centers and Hospital-Based Dentistry

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Wednesday, October 26, 2011
Why might a Health Center consider Hospital-based Dentistry
“Life's challenges are not supposed to paralyze you, they're supposed to help you discover who you are.”

- Bernice Johnson Reagon
Innovative Strategies to Meet These Challenges

• Contracting for services with a dental specialist

• Partnering with academia to bring residents training in a dental specialty and their faculty dentists to the Health Center

• Developing a new program area within the Health Center
“With prevention in mind, first, we should emphasize a ‘perinatal and infant oral health care management approach’ before jumping to sedation or general anesthesia…

this must be our last resource.”

- Francisco Ramos Gomez
“Every child should begin to receive oral health risk assessments by 6 months of age by a qualified pediatrician or a qualified pediatric health care professional. (Children) determined to be at risk of development of dental caries should be directed to establish a dental home 6 months after the first tooth erupts or by 1 year of age (whichever comes first).”
The **Paradigm Shift** continues...

- Disease management
  Historical versus Developing Approach

- New evidence-based techniques
  Interim Therapeutic Restoration
  Fluoride Varnish

- Caries Risk Assessment
Why should we focus on Risk Assessment in Dentistry?

- Gives understanding of the disease factors for a patient
- Individualizes and selects preventive recommendations
- Individualizes treatment
- Less treatment for low risk; more for those at high risk
Risk Factors

- previous caries
- mutans streptococci
- income and education
- visible plaque
- diet
- fatalism
- mother’s taste perception
CONCLUSIONS:
These findings suggest that the bitter non-tasters are more susceptible to dental caries than the tasters in the urban area.
The Developing Approach

- Treatment should be based on individualized-care according to their level of disease (what Dr. Norman Tinanoff calls “Care Paths”)
- Treatment should be based on evidence-based guidelines
Active Surveillance (0-2 yr old)
(prevention and careful monitoring for signs of progression)

Tests
Caries Risk Analysis
Clinical Exam
Radiographic Exam
Compliance

Low Caries Risk
→ Toothbrush with F, .1%

Moderate Caries Risk
→ Toothbrush with F, .1%
Professional F, 6 mo.
Diet counseling

High Caries Risk
→ Toothbrush with F, .1%
Professional F, 3 mo.
Diet counseling
Motivational Interview

Recall

(NNOHA - National Network for Oral Health Access)
Active Surveillance (>6 years old)

Tests
- Caries Risk Analysis
- Clinical Exam
- Radiographic Exam
- Compliance

Caries Risk Analysis
- Low Caries Risk → Toothbrush with F, .1%
- Moderate Caries Risk
  → Toothbrush with F, .1%
  → Professional F, 6 mo.
  → Sealants
  → Xylitol
  → Diet counseling
- High Caries Risk
  → Toothbrush with F, .5%
  → Professional F, 3 mo.
  → Sealants
  → Xylitol
  → Diet counseling
  → Motivational Interview

Recall

Active Surveillance (6 age old)
ITR = scoop and squirt
The American Academy of Pediatric Dentistry (AAPD) policy re: ITR

“ITR may be used to restore and prevent further decalcification in young patients, uncooperative patients, or patients with special healthcare needs, or when traditional cavity preparation and/or placement of traditional dental restorations are not feasible or need to be postponed”
Mouth of a twelve month old child …but not an O.R. case
Objectives of G.A.:

- Provide safe, efficient, and effective dental care
- Eliminate anxiety
- Reduce untoward movement and reaction to dental treatment
- Aid in treatment of the mentally, physically, or medically compromised patient
- Eliminate the patient's pain response
Indications:

- Patients who cannot cooperate due to a lack of psychological or emotional maturity and/or mental, physical, or medical disability
- Patients for whom local anesthesia is ineffective because of acute infection, anatomic variations, or allergy
- **The extremely uncooperative, fearful, anxious, or uncommunicative child or adolescent**
- Patients requiring significant surgical procedures
- Patients for whom the use of general anesthesia may protect the developing psyche and/or reduce medical risk
- Patients requiring immediate, comprehensive oral/dental care
Special Care Dentistry Association Guidelines

- **Behavior support** - “tell-show-do”

- **Physical support** - This can involve positioning the patient to be more comfortable in the dental chair to have a member of the dental team or a caregiver hold the patient in some way to prevent them from interfering with treatment procedures. These techniques can be used alone or in conjunction with behavioral supports.

- **Psychological support** - These techniques range can overlap with behavioral supports and include “voice control” and relaxation techniques. They can also include aspects of cognitive therapy and systematic desensitization.
Social support and prevention strategies - role-playing

Sedation - Ranging from minimal sedation to deep sedation.

General anesthesia delivered in hospitals, surgical centers, and dental offices - This is the most complex and expensive mode of treatment listed and the one that carries the most risk. However, in some patients with complex medical, physical, and psychological conditions it may be the best and safest way to complete a course of dental treatment.
Contraindications:

• A healthy, cooperative patient with minimal dental needs

• Predisposing medical conditions which would make general anesthesia inadvisable
Developing a Health Center Hospital-based Dentistry Program

- There are how-to resources available to guide a dental program in setting up a hospital operating room and performing dental work in a hospital: Glassman P. A Manual of Hospital Dentistry, 9th Edition, 2009.

- It is important to conduct a community needs assessment

- and to create an operation and capital expense budget, identifying the cost for staffing, supplies, and capital equipment: business plan
Is it the Health Center’s program?

In order for the program to be self-sustaining, a Health Center will need to:

• be able to bill for the dental services delivered at the hospital,

• provide liability coverage for the provider

• have an arrangement with the Medicaid vendors so that payment using **fee for service** versus the clinic’s cost-based PPS methodology.

• All of the above = **Change in Scope**
Relevant Regulations

• Authorizing Legislation - Section 330 of the Public Health Service (PHS) Act
  http://bphc.hrsa.gov/about/legislation/section330.htm

• Policy Information Notice 2008-01: Defining Scope of Project and Policy for Requesting Changes
  http://bphc.hrsa.gov/policy/pin0801/
Engaging Partners

- Collaboration
- Non-dental Advocates (i.e. school nurses, teachers, medical providers)
- W.I.F.M? (i.e. OR capacity)
Assessing the Community’s Needs

- Identify any unmet needs (i.e. are there any providers for children, persons with special health needs?)

- Determine causes of inadequate care, gather data on funding sources for these services

- Determine the best use of any available funds
Resources


Writing a Successful Business Plan

- It is important to create an operation and capital expense budget, a plan for identifying the cost for staffing, supplies, and capital equipment.

- This business plan will forecast when the project might become profitable or at least self-sustaining.

- A business plan will guide the Health Center to where negotiations must occur to make the program financially practical.
## The Business Plan

2 OR dates per month with 2 cases per date

### Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td>50,000</td>
<td>one time expense</td>
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<tr>
<td>Provider</td>
<td>19,200</td>
<td>contractual $100 / hour</td>
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<tr>
<td>Support Staff</td>
<td>2,500</td>
<td>$13 / hour</td>
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<tr>
<td>Supplies @ $10 / case</td>
<td>480</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72,180</strong></td>
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### Revenues

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<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Description</th>
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<tbody>
<tr>
<td># Projected cases</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Medicaid 90%</td>
<td>5184</td>
<td>$120 / visit</td>
</tr>
<tr>
<td>Uninsured 10%</td>
<td>96</td>
<td>$20 nominal fee</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,280</strong></td>
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### Revenue less Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue less Expenses</strong></td>
<td><strong>66,900</strong></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fee for Service</strong></td>
<td><strong>14,220</strong></td>
<td>Average case $1,800</td>
</tr>
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Recruitment and Credentialing of Staff

- Is there a provider on the staff competent and interested in providing care in a hospital setting?

- By partnering with dental schools, perhaps pediatric dental residents and/or fellows can be contracted to provide these specialty services.

- Another option is to partner with the private sector; perhaps there is a new, local pediatric dentist who is new to the area and interested in hospital work.
Privileging of Staff

- Hospital privileges are specific treatment procedures for which the applicant has demonstrated satisfactory training, experience and competence
- The burden for proof of competence when applying for new or additional privileges is always with the applicant
- Once the application is complete, the new medical staff may be accepted on a probationary status and assigned a proctor for review of the applicant’s clinical performance
Understanding the Hospital Environment

- An understanding and awareness of accrediting organization, national, state and local health standards is required.
- Convincing the hospital administration to accept the idea of a hospital-based pediatric dental program may be difficult – identify a champion.
- Finding a provider with adequate experience may be challenging.
Equipment Needs/Innovative Products

- Self-contained, portable treatment unit (compressor, vacuum unit)
- Dental Handpieces; both slow and high
- Isolite
- Light curing unit, Amalgamator
- Supply cabinet for hand instruments, dental materials
- Portable NOMAD X-ray unit for intraoral films
- Laptop/CDR Sensor for digital films
Preparing for Surgery

- Prior to the delivery of general anesthesia and surgical care, appropriate documentation is required that addresses the rationale for use of general anesthesia.
- In addition informed consent must be acquired; instructions must be provided to the parent including dietary precautions, and a preoperative health evaluation must be preformed by the patient’s primary care provider.
Insurance Requirements

- A physical exam scheduled within 7 days before the posted OR date
- Two insurance pre-authorizations – one for the child’s medical insurance to cover the hospital’s fees (facility and anesthesia costs) and one for the child’s dental insurance to cover the proposed treatment plan (pre-authorization request).
- A completed ADA Pre-authorization claim form, on which one must specify Hospital as place of treatment on line item #38.
  http://www.ada.org/prof/resources/topics/topics_claimform.pdf
Provision of Dental Services in the Hospital Operating Room includes the Following Phases

• Isolation of the surgical field
• Collection of dental diagnostic data
• Composing the treatment plan
• Completing the dental procedures
Case Management

Case managers

- Verify coverage & benefits with the health insurers to ensure the provider is appropriately paid
- Coordinate the services associated with attending surgery and return home
- Provide patient education
- Assure post-care follow-up
- Coordinate services with other health care providers.
More specifically a Case Manager for a CHC hospital-based pediatric dental program may:

- Optimize OR utilization (i.e. posting a “stand-by” case in the event of a cancellation and looking for any additional, available OR time)
- Interpret all patient information forms for non-English speaking patients (i.e. discharge instructions, may even populate patient demographics on hospital forms), be available for interpretation on site (i.e. pre-op and recovery rooms) as needed
- Discuss the patient’s and/or caregiver’s concerns, questions about surgery, sedation, (i.e. explains what to expect and how to navigate the hospital, calls patient/family day before and day after surgery)
- Work with Social Services, Child Protective Services and other agencies (i.e. Head Start) to assure all children access care they need
- Work with the billing office, and Health Center’s medical and dental providers as a liaison to improve communication
- Work with the dental director to develop tools that facilitate referrals, to prioritize cases and determine length of surgery times to improve scheduling
Challenges/Pitfalls ...and Some Unique Solutions

- Scratched Cases (cancellations and no-shows)
- Provider Retention
- Competition for OR time
- Poor outcomes/failures
Failures
Recall rates and caries experience of patients undergoing general anesthesia for dental treatment.

**CONCLUSION:**

Recall rates after general anesthesia for dental treatment at a university hospital are very low, and new or recurrent caries experience is high
Recurrence of Early Childhood Caries after Comprehensive Treatment with General Anesthesia and Follow-up:

Authors: Foster, Tyger; Perinpanayagam, Hiran; Pfaffenbach, Amy; Certo, Margaret

CONCLUSION:

Despite the aggressive treatment of ECC, more than half the patients have new caries lesions within 2 years. The patients who fail to attend their immediate follow-up appointment may be more likely to experience a relapse.
Program Evaluation

Evaluation accomplishes several important tasks, including:

- Helping staff understand what is working, what is not working, and why
- Providing the dental director of the program with information that enables him/her to make program adjustments (i.e. turn the ship)
- Giving the dental director periodic dashboard views of the program activities and the progress he or she is making toward achieving the program’s outcomes
- Helping to ensure continued, perhaps future, support from policymakers and funding entities
THANK YOU

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