Acute Dental Problems in the School Setting

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Brief Description of Workshop (75 words or less): Students miss 51 million hours of school each year due to dental pain. This workshop will explore the origins of oral pain and dental problems precipitated by oral infections or trauma. Clinicians will learn to treat oral pain; accurately assess, treat, and refer patients with oral infections; recognize and triage true dental emergencies; and promote the use of protective equipment to prevent oral injuries.

Objectives for the Workshop: “Participants will be able to...” (Choose from list below)

1) Identify the origins of dental pain and dental problems precipitated by infections or trauma
2) Assess, treat, and refer patients with oral infections
3) Recognize and triage dental emergencies
4) Explain the use of protective equipment to prevent oral injuries
Objectives

- Identify the origins of dental pain and dental problems precipitated by infections or trauma
- Assess, treat, and refer patients with oral infections
- Recognize and triage dental emergencies
- Explain the use of protective equipment to prevent oral injuries
Pain

- Pain is an important function in the body, it signals real or apparent tissue damage.
- This is useful to motivate the patient experiencing to do something to alleviate the pain.
- Pain is multifactorial: physical, chemical, humoral, psychological = emotional and behavioral, cognitive, social elements.
- Parallel experiences are demonstrated as stress and fear-often with the anticipation of pain.
• Self management of pain becomes more effective with advancing age.

• This is a result of multiple factors including maturation of coping skills, self control and social influences.

• Young children who lack coping skills can display hysterical behavior (extreme panic, struggling, screaming).
- 22.24% of 6-11 year olds have untreated primary tooth decay.
- Tooth decay an infection has been associated with poor school performance, and overall poor quality of life.
- 25% of adults over 60 have lost all their teeth.
- Almost all oral diseases can be prevented.
Decay

Infected Nerve tissue

Bone infection

Enamel

Dentin

Pulp

Bone
Tooth Pain Symptoms

- Tooth sensitivity due to caries (cavities)
  - Short lasting - sharp pain
  - Usually associated with eating, or getting food ‘stuck’

- Serious infection
  - Elevated temperature (102-104)
  - Difficulty swallowing or breathing
  - Nausea, fatigue or sweating
  - Spontaneous, long lasting aching, nocturnal pain
Infection

- Classic symptoms
- Redness
- Pain
- Swelling
- Local and systemic temperature
Infection

- Children have wider, less dense marrow spaces
- Odontogenic infection can spread rapidly
- Cavernous sinus thrombosis
- Brain abscess
- Airway obstruction
  - (hospitalization-ab iv)
Consequences of Untreated Dental Decay

- Damage to erupting teeth.
- Invasive dental treatments (i.e. tooth extraction and root canals).
- Some children unable to cope with dental treatment.
- Early tooth loss, growth disturbances, and adult dental debilitation.
- Infections resulting in emergency room visits and hospital stays.
What Can You do?

- Antibiotic therapy.
- Usually mixed aerobic and anaerobic - penicillin the antibiotic choice for broad spectrum properties.
- Amoxicillin, Augmentin, Azithromycin, and Clindamycin.
- NSAIDS or Tylenol as needed.
- Surgical incision and drainage.
- Extraction of the offending tooth.
Trauma
Epidemiology of Traumatic Dental Injuries:

• Peak incidences in the primary dentition occur around 2-3 years of age.

• Peak incidences in the permanent dentition are at 9-10 years of age.

• The most common injuries in the permanent dentition are: (in order of common occurrence)
  1- FALLS
  2- MVA
  3- VIOLANCE
  4- SPORTS
Epidemiology of Traumatic Dental Injuries

Five Year Old Children

- 1/3 have suffered a traumatic injury to primary teeth
- Luxation is the most common injury
- Boys > Girls

12 Year Old Children

- 1/5-1/3 have suffered dental injuries
- Boys X 1/3 more than girls
- Uncomplicated crown fracture is most common injury
Tooth Trauma

- Definition: injury to tooth supporting structures with or without abnormal loosening or displacement of the tooth
- Marked tenderness to percussion
- Presentation: normal or displaced
- Periodontal Ligament: edema and bleeding
- Can have damage to neurovascular bundle supply
Epidemiology of Traumatic Dental Injuries

Crown Fracture
Crown Fracture with pulp exposure
Root Fracture
Intrusion
Avulsion
Avulsion

- Identify permanent or primary tooth
  - Primary tooth
    - Do not replant
  - Permanent tooth
    - Replant
    - Place in transport medium
Transport Mediums

- Milk.
- Salavia.
- **Hank’s Balanced Salt Solution**: Sodium carbonate, potassium chloride and calcium chloride. They promote cell adhesion.
- **Viaspan**: Potassium lactobionate: 100 mM, KH$_2$PO$_4$: 5mM Raffonose: 30 mM Adenosie: 5 mM Glutathione: 3mM, Allopurinol: 1mM, Hydroxyethyl starch: 50 g/L. Intracellular like transport medium.
Initial Interview

- Clean injury, make patient comfortable
- When?
- Where?
- How?
- Unconscious?
- Previous injuries to area?
- Med Hx, tetanus up to date?
- Change in occlusion, reproducible, deviation on opening, reduced opening?
Signs and Symptoms of maxillary or midface fractures

- Altered occlusion
- Facial asymmetry (edema)
- Nasal hemorrhage
- Ecchymosis of the palatal or buccal mucosa
- Mobility of jaw segments, lacerations
Signs and symptoms of Mandibular fractures

- Altered occlusion
- Ecchymosis of the floor of the mouth or buccal mucosa
- Peri-auricular pain
- Mandibular deviation on opening
- Jaw segment mobility
- Change in occlusion, reproducible, deviation on opening.
- Reduced opening?
- Rule out head trauma.
- Concussion?
- Full Head and Neck Exam.
The Connecticut Dental Health Partnership (CTDHP) is the dental plan provided by the State of Connecticut Department of Social Services (DSS) to its clients in the four primary medical assistance programs.

All of the State’s dental programs were combined into one program with a focus on improving access to care and building a better oral health system. CTDHP began on September 1, 2008.
Over 580,000 residents are covered, which makes this the state’s largest dental plan. About half of the plan members are children. That is one in four of Connecticut’s children and about one in seven of all of the state’s residents. The groups covered include clients in these DSS medical assistance programs:

- Families Medicaid (HUSKY A)
- Children’s Health Insurance Program, CHIP (HUSKY B)
- Medicaid/ Title XIX/Fee-for-Service (HUSKY C)
- Medicaid for Low Income Adults, MLIA (HUSKY D)
CTDHP is focused on improving access to care, educating clients about oral health, building self sufficiency and reducing barriers to participation. CTDHP works to instill the concept of a primary care dentist (PCD) and the importance of each client having a Dental Home.

Care Coordination and Case Management are provided through a team of eight Dental Health Care Specialists (DHCS), seven, who cover six specific regions and one who works with Clients who have Special Health Care Needs (CSHCN). Two are bilingual. Health care providers and community agencies can refer clients to CTDHP for this service.
• Client Services: 855-CT DENTAL (Monday - Friday, 8:00 AM – 5:00 PM)

• Provider Relations: 888-445-6665 www.ctdhp.com

• Marty Milkovic Director of Care Coordination & Outreach marty.milkovic@ctdhp.com

• Tracey Andrews Outreach Manager tracey.andrews@ctdhp.com 860-507-2302 860-507-2315
What is a Pediatric Dentist?

- Definitions and scope of pediatric dentistry: Pediatric dentistry is an age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.
What is a Pediatric Dentist?

- To become a pediatric dental specialist, a dentist must satisfactorily complete a minimum of 24 months in an advanced education program accredited by the Commission on Dental Accreditation of the American Dental Association (ADA).
YNHH
Pediatric Dental Center
Patient Visits

- Dental Home for over 6000 patients, with 14,000 patient visits a year
- Comprehensive dental care
- Nitrous Oxide, IV sedations in clinic
- General anesthesia
- Walk in emergency care
THANK YOU

QUESTIONS?