Elective Course Review/Evaluation:
D8290 Pediatric Coordinate Care: Special Needs Elective

This elective provides a powerhouse of clinical and didactic experience to any student with an interest in pediatrics, special needs, medical anomalies, and interdisciplinary coordinated health care. As part of this elective, I was scheduled for four Wednesday morning sessions at the UF Health Pediatric Care Coordination Clinic. At each session, 3-6 pediatric patients with varying syndromes and conditions would visit the pediatrician, Dr. Seguias, and the team of nurses for either acute or recall care. After meeting with the pediatrician, the patient would then be invited for an evaluation with the pediatric dentist, Dr. Mugayar. My role in these sessions was to assist Dr. Mugayar with clinical examinations, fluoride varnish applications, as well as, oral health counseling customized to the child’s individual needs. Additionally, I would shadow the pediatrician and nurses during their appointment for insight into the patient’s comprehensive care plan.

These clinical sessions gave me an immense amount of insight into many different syndromes and the impact they have on the patient as well as their families. This elective gave me the unique opportunity to put a face to rare syndromes that otherwise I would only ever know from a textbook, for example Pierre Robins Syndrome, Moebius syndrome, Cerebral Palsy, Myotubular Myopathy, and Agnathia Otocephaly syndrome. Meeting these incredible children and their families in this coordinated care environment allowed me to better understand their rare conditions from both medical and dental perspectives. I have no doubt that this elective has been one of the most profound experiences in my education thus far.

Elective Instructor Review/Evaluation: Dr. Mugayar

The most valuable experience of this elective was engaging in one on one academic discussion with Dr. Mugayar. Before each clinical session, Dr. Mugayar and I would review the charts of the patients scheduled to see us that day. We would focus on the child’s unique and complicated medical history including the syndromes, associated disorders, general characteristics, etiology, and clinical relevance for each patient. After the clinical session, we would review each case again but now expanding on our previous didactic discussion to incorporate the clinical interactions that had just occurred. During these discussions, I was blown away by Dr. Mugayar’s wealth of knowledge and expertise in special needs care. Learning from Dr. Mugayar in this capacity was the highlight of my Senior Spring semester by far, especially in preparation for my upcoming residency in Pediatric Dentistry.
Recommendations:

I would like to have had more access to the patient’s electronic health records while in the clinic in order to better understand each case fully. Clinical sessions were fairly busy and always exciting- seeing 3-6 medically compromised patients a session. With such complicated significant medical histories I craved more time to review each case. If granted I believe it would facilitate an even richer academic experience.

I recall during the Craniofacial elective a print out of the clinical schedule for that day was given to the students and CF team members. The printout outlined the patient’s name, age, sex, syndrome, and chief complaint. This print out was helpful in keeping the session organized as well as provided a platform for me to take handwritten notes from each clinical encounter. Maybe this elective could produce a similar document?

Overall this elective is OUTSTANDING!

Debriefing Purpose: New course director, Dr. Natera

Course Evaluation: Overall course rating 3.43 (42)

Syllabus:

Course Content:
- Students felt the course content was good.

Course Materials / Textbook:
- Students found it difficult to find information in the Documents section of ECO and asked if materials could be organized by lecture.
- Students also requested the posted presentation be full slides per page.

Laboratory:
- Students asked for earlier notification of teeth needed for endodontics.
- There was general agreement that there are too many students in the tooth selection lab for the radiography of mounted teeth. Students asked if this could be organized by groups on different days.

Evaluation:
- Students felt the exams were fair.
- In the team-based learning assignment, students did not feel it should be worth 10% of their grade.

Summary of Recommendations
- Notify students the semester prior when and what types of teeth they need for the course. Consult with Dr. Riberio who works on identifying student teeth for caries in spring/semester 2.
- Arrange the radiographic lab session by the 4 preset student groups. Consider use of small group designated lunch times in radiology to complete radiography of selected teeth.
- Confirm the Office of Admissions has the same detailed list as Endodontics.
- Standardize the Documents section naming convention.
- Present a clearer expectation for the team-based learning assignment.
- Create a video to accompany the featured technique in the posted lecture.
Debriefing Purpose: New course director, Dr. Bowers

Learning Environment:
- Dr. Bowers cares about the material, the course, our future as professionals.
- He is approachable yet be prepared to explore case details. He mentors you through the process.
- Dr. Bower uses antidotes outside dentistry and they are received well. One example is a correlation between medical emergencies and a pilot in emergency decisions.
- He is a role model instructor and tests on what he teaches.

Course Content
- One student that had their first OS rotation did not feel adequately prepared to begin patient care and the protocol for post check varied.
- The IND procedure was used often in DEN7805L yet students asked where it was explicitly taught.

Examinations
- There were extra credit questions on exams that are covered in class. This encouraged students to watch the videos or attend class.
- Exams were fair as they related exactly to what was taught.

Recommendations
- Include step-by-step IND process in this class
- Conduct a debriefing for DEN7805L: Clinical Oral Surgery I
## Criteria

### Courses & Content Sequencing

Is the semester of **courses sequenced** to build on content development sufficiently?

Identify where this stream incorporates **emerging information**?

Do the courses have **excessive** content **overlap** with other streams in the curriculum such that time could be used in other ways?

Are their **content gaps** or **redundancies** that need to be addressed?

**Comments:**
- Not too many gaps or overlaps.
- There was some repetition in periodontic and histology lectures.
- Treatment planning lectures were repetitious but demonstrated it from a treatment planning perspective. It was suggested to omit the repeated lectures’ discipline and focus on the critical thinking of the cases and axiUm entry.
- axiUm online training was appreciated by the students but was redundant in the spring semester.
- Students liked the structure of the prosthodontics course.

### Teaching Methods

What are the primary methods of instruction this semester?

**Comments:**
- In treatment planning, faculty and TAs were not evenly distributed between clinics. Additionally, to calibrate new faculty and TAs.
- Faculty were not calibrated effectively. Students noted faculty tautology in lecture materials.

Active learning:
- Active learning was evident in Operative Dentistry, Oral Pathology and Prosthodontics. The in class quizzes reinforced active learning.

### Methods of Evaluation

What are the primary methods of student assessment this semester?

**Comments:**
- Students found the oral pathology quizzes very stressful. They noted the quizzes were unclear in their lecture origin and had higher point value than exam questions.

### Student Preparation and Assignments:

Are course readings and assignments throughout the semester appropriate?

Identify where group projects/student presentations occur this semester?

**Comments:**
- Periodontic labs were not equal in time for each group.
- Endodontic labs were too large.

### Credit Hours

Does credit assignment for the courses reflect the hours scheduled and the assignments completed?

Do the credit assignments for the courses reflect appropriate weight within the curriculum?

**Comments:**

---

**RECOMMENDATIONS**
- Only cover cases and axiUm entry for treatment planning and remove the discipline, such as endodontics, from the lectures. Also to work from the simpler cases to the more complex.
- Make axiUm training online and only in the first semester of treatment planning.
- Change the oral pathology quizzes to either have an extra credit questions. Also to have more quizzes with less questions, to change the weight of the quizzes from 15% to 10% of the grade and/or move the quizzes to Canvas to eliminate a stressful learning environment.
- Calibrate faculty when giving similar lecture materials.
- Develop a course packet that includes the buzz words for oral pain.
- Ensure lab times are equal for periodontics.
- Create smaller lab groups for endodontics.
- Mirror teaching methods of prosthodontics with operative dentistry courses.

**CHALLENGES TO DO YOUR BEST**
- Periodontic psychomotors were challenging.
- Practicing with classmates.
**CLINICIAN’S GUIDE TO ACUTE PAIN MANAGEMENT**

**No Contraindications**

**to NSAIDS, ASA, or Acetaminophen (APAP)**

- **APAP 650mg + Ibuprofen 600mg q 4-6h**
  - (Alternate APAP and Ibuprofen)

**History of Substance Abuse/Addiction or Contraindications**

**to NSAIDS, ASA, or Acetaminophen (APAP)**

- **Consult with patient prior to the procedure to develop a pain management plan.**
  - If a patient has contraindications, consult local MD before prescribing pain medications.
  - If a patient has a history of substance abuse or addiction, consult a pain specialist or local MD before prescribing pain medication.

**MOBILE**

**SEVERE**

- **APAP 650mg q 4-6h prn pain**
  - OR
- **Diclofenac 50mg** (Cataflam®) TID

**MODERATE**

- **Ibuprofen 200-600mg q 4-6h prn pain**
  - OR
- **Celecoxib (Celebrex®) 200mg 1 cap q 12h prn pain**
  - OR
  - **Ibuprofen 200-600mg + APAP 650mg q 4-6h prn pain**

**MILD**

- **APAP 650mg q 4-6h prn pain**
  - OR
- **Diclofenac 50mg** (Cataflam®) TID

**Non-Pharmacological Treatments**

*Consider the following non-pharmacological interventions for pain management*: rest, sleep, stress & anxiety management, acupuncture, ice/heat, behavioral pain management (create realistic expectations, psychological effects)

---

**IMPORTANT**: These are possible, suggested guidelines for acute pain management in the UF College of Dentistry. Always consider the patient’s health conditions, prior pain mgmt experience, age, and weight when prescribing. Prescribe the lowest doses possible to achieve effective relief. These suggested guidelines are for PO administration in adults only. Discuss pain mgmt plans with patients prior to prescribing.
REFERENCES

PRESCRIPTION OPIOIDS: WHAT YOU NEED TO KNOW

Prescription opioids can be used to help relieve moderate-to-severe pain and are often prescribed following a surgery or injury, or for certain health conditions. These medications can be an important part of treatment but also come with serious risks. It is important to work with your health care provider to make sure you are getting the safest, most effective care.

WHAT ARE THE RISKS AND SIDE EFFECTS OF OPIOID USE?

Prescription opioids carry serious risks of addiction and overdose, especially with prolonged use. An opioid overdose, often marked by slowed breathing, can cause sudden death. The use of prescription opioids can have a number of side effects as well, even when taken as directed:

- Tolerance—meaning you might need to take more of a medication for the same pain relief
- Physical dependence—meaning you have symptoms of withdrawal when a medication is stopped
- Increased sensitivity to pain
- Constipation
- Nausea, vomiting, and dry mouth
- Sleepiness and dizziness
- Confusion
- Depression
- Low levels of testosterone that can result in lower sex drive, energy, and strength
- Itching and sweating

RISKS ARE GREATER WITH:

- History of drug misuse, substance use disorder, or overdose
- Mental health conditions (such as depression or anxiety)
- Sleep apnea
- Older age (65 years or older)
- Pregnancy

Avoid alcohol while taking prescription opioids. Also, unless specifically advised by your health care provider, medications to avoid include:

- Benzodiazepines (such as Xanax or Valium)
- Muscle relaxants (such as Soma or Flexeril)
- Hypnotics (such as Ambien or Lunesta)
- Other prescription opioids

As many as 1 in 4 people* receiving prescription opioids long term in a primary care setting struggles with addiction.

* Findings from one study
**KNOW YOUR OPTIONS**

Talk to your health care provider about ways to manage your pain that don’t involve prescription opioids. Some of these options **may actually work better** and have fewer risks and side effects. Options may include:

- Pain relievers such as acetaminophen, ibuprofen, and naproxen
- Some medications that are also used for depression or seizures
- Physical therapy and exercise
- Cognitive behavioral therapy, a psychological, goal-directed approach, in which patients learn how to modify physical, behavioral, and emotional triggers of pain and stress.

**IF YOU ARE PRESCRIBED OPIOIDS FOR PAIN:**

- Never take opioids in greater amounts or more often than prescribed.
- Follow up with your primary health care provider within ___ days.
  - Work together to create a plan on how to manage your pain.
  - Talk about ways to help manage your pain that don’t involve prescription opioids.
  - Talk about any and all concerns and side effects.
- Help prevent misuse and abuse.
  - Never sell or share prescription opioids.
  - Never use another person’s prescription opioids.
- Store prescription opioids in a secure place and out of reach of others (this may include visitors, children, friends, and family).
- Safely dispose of unused prescription opioids: Find your community drug take-back program or your pharmacy mail-back program, or flush them down the toilet, following guidance from the Food and Drug Administration ([www.fda.gov/Drugs/ResourcesForYou](http://www.fda.gov/Drugs/ResourcesForYou)).
- Visit [www.cdc.gov/drugoverdose](http://www.cdc.gov/drugoverdose) to learn about the risks of opioid abuse and overdose.
- If you believe you may be struggling with addiction, tell your health care provider and ask for guidance or call SAMHSA’s National Helpline at 1-800-662-HELP.

**Be Informed!**

Make sure you know the name of your medication, how much and how often to take it, and its potential risks & side effects.
The purpose of this document is to establish guidelines for the management of post-surgical, acute oral and maxillofacial pain using a combination of techniques with the intent of providing an optimal pain management strategy.

Post-Surgical Acute Pain Management Guidelines for Non-Malignant Dental Pain

University of Florida College of Dentistry

2018
Preface

Management of acute pain after surgery in the oral and maxillofacial region has evolved with recent research advancements in our understanding of pain and healing processes. For example, peripheral and central neurophysiological and inflammatory events that occur in response to damage of superficial or deep orofacial structures has been a focus of research over that past 25 years and it is now well-documented that uncontrolled acute pain has a high potential to progress to persistent pain. Management strategies that minimize a barrage of nociceptive afferent activity from the periphery during and after surgery are recognized as an effective approach towards management of acute pain.

It is important that periodic reviews of our pain management strategies for acute, post-surgical pain be undertaken to maximize the most efficient outcomes for our patients and minimize unnecessary suffering. With the recent focus on the use (and abuse) of opioids as a part of pain management strategies, it is incumbent upon our dental profession to examine alternative pain management strategies as they become available. Pharmacological management of acute pain using opioids has a role in acute pain management but newer evidence suggests that many patients can have very good pain management either without including opioids or using opioids in combination with other non-narcotic analgesics for a short duration and then progressing to non-narcotic alternatives. The addition of physical modalities such as ice or heat and/or behavioral interventions such as anxiety/stress reduction has also been shown to be valuable strategies to complement pharmacological management.

The purpose of this document is to establish guidelines in the College of Dentistry at the University of Florida that represent a consensus of the faculty for college-wide management of acute post-surgical pain. These guidelines are developed with the understanding that identification of more efficacious, evidence-based acute pain management strategies will necessitate a re-assessment as new information and new techniques become available. These guidelines also document the current American Dental Association (ADA) recommendations for the use of opioids in the dental practice approved by the ADA House of Delegates in 2016. Finally, examples of prescribing dosage and types of medication are included from a recent peer-reviewed publication. The examples detailing the prescribing dosages of non-narcotic and opioid preparations for different intensities of pain provide a set of recommendations that have been peer-reviewed and can be used by the practicing dentist. Examples of the efficacy of non-narcotic and narcotic medications are also included to emphasize the pain-relieving characteristics of non-narcotic combinations that may be superior to some narcotic interventions.
STEP 1
Non-Steroidal Anti-Inflammatory Medication (NSAID) + Acetaminophen (APAP) + Physical Modalities (Ice/Heat) and/or Behavioral Pain Management

5 NSAID contraindicated in patients with kidney or liver impairment, cardiovascular disease or recent MI, hypertension, congestive heart failure (CHF), gastrointestinal bleeding history, asthma, bleeding disorders, pregnancy starting at 30 wks, chronic alcohol abuse or known hypersensitivity to the drug. Starting dosage should be in the low-midrange and titrate to achieve pain management.

6 APAP (N-acetyl-p-aminophenol or acetaminophen) contraindicated in patients with kidney or liver impairment or known hypersensitivity to the drug. Starting dosage <1000 mg/day to a maximum of 3000 mg/day.

7 Behavioral pain management includes rest, adequate sleep duration and/or stress/anxiety management.

8 Low dose, short-acting opioids such as codeine, hydrocodone (in combination with NSAIDs or APAP) or tramadol titrated until pain relief is achieved.

9 Low dose, long-acting opioids such as fentanyl, oxycodone, morphine, methadone, buprenorphine titrated until pain relief is achieved.

STEP 2
Weak Opioid +/- NSAID or APAP prescribed for short duration (3-5 days) + Physical Modalities (Ice/Heat) and/or Behavioral Pain Management

Proceed to STEP 2 if patient has multiple episodes of breakthrough pain or has contraindications to NSAIDs and/or APAP and has not responded to alternative pain management approaches such as physical modalities/behavioral pain management.

STEP 3
Strong Opioid +/- NSAID or APAP + Physical Modalities (Ice/Heat) and/or Behavioral Pain Management

Consider referring patient to a pain management specialist.

Proceed to STEP 3 if patient has multiple episodes of breakthrough pain and has not responded to alternative pain management approaches such as low dose opioid preparations and physical modalities/behavioral pain management.
1. When considering prescribing opioids, dentists should conduct a medical and dental history to determine current medications, potential drug interactions and history of substance abuse.

2. Dentists should follow and continually review Centers for Disease Control and state licensing board recommendations for safe opioid prescribing.

3. Dentists should register with and utilize prescription drug monitoring programs (PDMP) to promote the appropriate use of controlled substances for legitimate medical purposes, while deterring the misuse, abuse and diversion of these substances.

4. Dentists should have a discussion with patients regarding their responsibilities for preventing misuse, abuse, storage and disposal of prescription opioids.

5. Dentists should consider treatment options that utilize best practices to prevent exacerbation of or relapse of opioid misuse.

6. Dentists should consider nonsteroidal anti-inflammatory analgesics as the first-line therapy for acute pain management.

7. Dentists should recognize multimodal pain strategies for management for acute postoperative pain as a means for sparing the need for opioid analgesics.

8. Dentists should consider coordination with other treating doctors, including pain specialists when prescribing opioids for management of chronic orofacial pain.

9. Dentists who are practicing in good faith and who use professional judgment regarding the prescription of opioids for the treatment of pain should not be held responsible for the willful and deceptive behavior of patients who successfully obtain opioids for non-dental purposes.

10. Dental students, residents and practicing dentists are encouraged to seek continuing education in addictive disease and pain management as related to opioid prescribing.

Strategies to Consider for Optimal Post-Operative Acute Pain Management

1. Use of longer-lasting local anesthetics during surgery can allow time for post-operative analgesics consumed immediately after surgery to achieve a therapeutic level and minimize breakthrough pain episodes.

2. The patient must understand that it is important to follow the recommended schedule for oral analgesics as prescribed by their dentist. Discussion of prescribing strategies with the patient has been shown to reduce anxiety and stress associated with their post-surgical experience and can be a valuable part of pain management.

3. A patient that is suspected or acknowledges having a substance abuse disorder should be referred to their primary care physician, to a substance abuse treatment program or other appropriate referral.
Examples of Dosages of Analgesic Preparations for Different Severities of Dental Pain


<table>
<thead>
<tr>
<th>PAIN SEVERITY</th>
<th>ANALGESIC RECOMMENDATION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Ibuprofen (200-400 milligrams) q 4-6 hours: prn for pain</td>
</tr>
<tr>
<td>Mild to Moderate</td>
<td>Ibuprofen (400-600 mg) q 6 hours: fixed interval for 24 hours Then ibuprofen (400 mg) q 4-6 hours: prn for pain</td>
</tr>
<tr>
<td>Moderate to Severe</td>
<td>Ibuprofen (400-600 mg) with APAP (500 mg) q 6 hours: fixed interval for 24 hours Then ibuprofen (400 mg) with APAP (500 mg) q 6 hours: prn for pain</td>
</tr>
<tr>
<td>Severe</td>
<td>Ibuprofen (400-600) with APAP (650 mg) with hydrocodone (10 mg) q 6 hours: fixed interval for 24-48 hours Then ibuprofen (400-600 mg) with APAP (500 mg) q 6 hours: prn for pain</td>
</tr>
</tbody>
</table>

* Additional considerations:
- Patients should be warned to avoid acetaminophen, or N-acetyl-p-aminophenol (APAP), in other medications. Maximum daily dose of APAP is 3,000 mg per day. To avoid potential APAP toxicity, a dentist should consider prescribing an opioid rescue medication containing ibuprofen.
- Maximum dose of ibuprofen is 2,400 mg per day. Higher maximal daily doses have been reported for osteoarthritis when under the direction of a physician.
- A decrease in postoperative pain severity has been demonstrated when a nonsteroidal anti-inflammatory drug is administered pre-emptively.\(^\text{82}\)
- Long-acting local anesthetics can delay onset and severity of postoperative pain.\(^\text{79,80}\)
- A perioperative corticosteroid (dexamethasone) may limit swelling and decrease postoperative discomfort after third-molar extractions.\(^\text{81-83}\)

\(^\dagger\) q: Every.
\(^\ddagger\) prn: As needed.
Examples of Relative Efficacy of Various Analgesic Preparations for Dental Pain


**Figure 1.** Pain relief of ibuprofen-acetaminophen combinations. Pain relief was recorded on a five-point scale, in which 0 indicated “none,” 1 indicated “a little,” 2 indicated “some,” 3 indicated “a lot” and 4 indicated “complete.” APAP: Acetaminophen, or N-acetyl-p-aminophenol. mg: Milligrams. Adapted with permission of Elsevier from Mehlisch and colleagues.57

**Figure 2.** Ibuprofen-acetaminophen combinations versus codeine-nonopioid combinations. APAP: Acetaminophen, or N-acetyl-p-aminophenol. mg: Milligrams. Adapted with permission of the International Association for the Study of Pain from Daniels and colleagues.61