alberta dental association & college

You Asked About...

Prescribing Practices for Analgesic Drugs

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Many of the procedures that dentists perform can produce post-procedure pain. In most cases, the pain is short-lived and minor or moderate in nature. Some surgical procedures produce severe postoperative pain that requires stronger analgesic management. The use of both narcotic and non-narcotic analgesics are indicated when a procedure has been carried out and postoperative pain is an expected sequelae of the procedure. In the case of chronic pain management, narcotic analgesics and other medications may be indicated. Conditions such as neuropathic pain, temporomandibular joint disorders, chronic pain syndromes, atypical facial pain, systemic arthritides such as rheumatoid and psoriatic arthritis as well as ankylosing spondylitis, chronic neck pain, and headaches would fall into this category.

There is a growing concern on the part of government and law enforcement about the diversion of opioid drugs from their intended use into the illicit drug market. This misuse of opioid medication can produce addiction, overdose, and overdose related deaths. These issues have led to increased scrutiny of present prescribing practices within medicine and dentistry. Dentists must be aware of the negative impact of drug diversion and must tailor their prescribing practice to minimize this possibility.

Under the Health Professions Act: Dentists Profession Regulation, Section 12, members of the Alberta Dental Association and College are able to perform a list of restricted activities as set out in Schedule 7.1 to the Government Organization Act, that includes prescribing Schedule 1 drugs within the meaning of the Pharmacy and Drug Act. As with any privilege, there are corresponding duties or responsibilities that accompany these privileges.

When dentists anticipate prescribing drugs as a part of the management of dental disease and its sequelae, the initial step in deciding on treatment and an appropriate treatment plan, is obtaining a comprehensive and complete medical history. This history should include:

- A list of previous surgical procedures and patient outcomes,
- Any reactions to drugs prescribed,
- A systems review including questions about chronic pain conditions such as migraines, headaches, fibromyalgia, etc.,
- Any risk conditions such as obstructive sleep apnea and obesity,
- A list of medications currently being taken, both prescribed, and over the counter,
- Allergies and other adverse drug reactions should be documented,
- Psychosocial history especially recreational drug use (including types of drugs and frequency of use),

- Alcohol use and smoking should be documented, and
- Any admissions to drug or alcohol treatment centers should also be documented and discussed.

Once a definitive history and physical examination is performed, the appropriate treatment plan can be formulated and presented to the patient. Treatment recommendations can be made at that time.

If treatment includes procedures where postoperative pain is expected, then the practitioner has to make a decision about post-procedure analgesic management.

Minor or moderate pain can be treated with medications such as;

- Acetaminophen - common dose 325 to 650 mg q4 to 6h prn.
  (Cumulative dose not to exceed 4 g per day)
- NSAIDs. Non Steroidal Anti-inflammatories including the following:

  a) Ibuprofen - common dose 200 mg to 600 mg q4 to 6h
     (Cumulative dose not to exceed 2400 mg per day)
  b) Naproxen sodium – common dose 275 mg to 550 mg bid
     (Cumulative dose not to exceed 1375 mg per day)
  c) Diclofenac – common dose 50 mg to 75 mg bid
     (Cumulative dose not to exceed 200 mg per day)
  d) Ketorolac – common dose 10 mg q4 to 6h
     (Cumulative dose not to exceed 40 mg per day)
  e) Diflunisal – common dose 250 to 500 mg bid
     (Cumulative dose not to exceed 1.5 g per day)
  f) Celecoxib – common dose 100 mg to 200 mg bid
     (Cumulative dose not to exceed 400 mg per day)

  NOTE:

  a) All dosages described above are for oral use only,
  b) These dosages are provided for descriptive purposes only and
  c) Actual dosages should be tailored to the individual patient's needs.

There are suggestions that a combination of acetaminophen and an NSAID may be superior to the use of each drug independently.

It is critical to remember that with high-dose acetaminophen, hepatotoxicity in doses greater than 4 g per day is a real possibility. The patient's alcohol consumption has to be discussed if high doses of acetaminophen are being recommended.

NSAIDs can result in GI discomfort, GI ulceration, can contribute to renal failure, and can interfere with the normal metabolism of SSRI's, lithium, and methotrexate.

When there is a contraindication for the use of NSAIDs or acetaminophen, when the patient indicates that these drugs did not control pain in the past, or when the procedure is expected to produce pain that will not be controlled by NSAIDs +/- acetaminophen, then consideration for the use of an opioid is indicated.

The gold standard against which all opioid analgesics are measured is morphine. The equianalgesic doses are as follows for oral dosing:

DRUG	DURATION	EQUIANALGESIC DOSE
Morphine	3 to 7 hours	30 to 60 mg
Hydromorphone (Dilaudid)	4 to 5 hours	7.5 mg
Meperidine (Demerol)	2 to 4 hours	300 mg
Codeine	4 to 6 hours	200 mg
Oxycodone (Percocet)	4 to 6 hours	20 to 30 mg
Tramadol	4 to 6 hours	300 mg (10% to 20% as effective as morphine)

*This table illustrates equianalgesic doses for comparison between various compounds. It is not reflective of usual doses to be prescribed every 3 to 4 to 6 hours to control pain in the clinical setting and is presented to compare the potencies of opioids.

Codeine and Tramadol and their admixed versions with acetaminophen are the most commonly prescribed formulations in the list.

- Codeine / Acetaminophen Common dose – Acetaminophen 325 mg / Codeine 30 mg, 1 or 2 q4 to 6h prn.
- Tramadol / Acetaminophen - Common dose – Acetaminophen 325mg / Tramadol 37.5 mg 1 or 2 q4 to 6h prn.
- Tramadol – Common dose – 50 to 100 mg q4 to 6h prn: not to exceed 400 mg per day.
- Oxycodone / Acetaminophen - Common dose – Acetaminophen 325mg / Oxycodone 5mg 1 or 2 q4 to 6h prn.

  NOTE:

  a) All dosages described above are for oral use only.
  b) These dosages are provided for descriptive purposes only.
  c) Actual dosages should be tailored to the individual patient's needs.

If more potent drugs are needed for pain control, then the practitioner should consult with the appropriate physician or dentist/dental specialist before prescribing these.

Care needs to be taken with the very young and the elderly and in opioid-naive patients when prescribing.

The monitoring of opioid prescription practices is ongoing. In Alberta, certain drugs are in the Triplicate Prescription Program. This program is a partnership of pharmacists, dentists, physicians, and the College of Physicians and Surgeons of Alberta (CPSA). It is designed to monitor drug use and prescriptions. It is designed to monitor drugs that have a high addiction

potential and are prone to diversion for non-medical uses. The College of Physicians and Surgeons of Alberta (CPSA) administers this program. The program is designed to discourage prescription forgeries, help control "double doctoring" and doctor shopping, and to collect valuable data for research purposes.

If there is a deviation from normal practice or "double doctoring" is detected, then the College of Physicians and Surgeons of Alberta (CPSA) contacts the Alberta Dental Association and College and the Alberta Dental Association and College staff contact the prescribing member. On occasion, pharmacists may contact the prescriber directly.

A list of medications covered by the Triplicate Prescription Program can be found printed on the triplicate prescription forms. Drugs, such as codeine and tramadol, while not requiring triplicate forms, are also being closely monitored by the Triplicate Prescription Program.

Prescriptions written by dentists are uploaded to Alberta Netcare and can be assessed via the Pharmacy Information Network (PIN) or in the general database. Pharmacists are asked to monitor these databases to identify and minimize the possibility for substance abuse and diversion. Concerns can be raised in the monitoring program from individuals prescribing outside of the normal scope of practice, prescribing unusually high doses or an unusually large number of pills, unusual frequency of prescription refills, or having one single set of prescriptions for all patients.

The use of all analgesics and especially opioids must be individualized to the patient and the circumstances within which he or she presents. A thorough review of the medical history, treatment plan, and treatment provided, etc. must be considered for each and every patient. Where the circumstances mandate, non-opioid analgesics should be used. When opioid analgesics are to be used, there has to be a proper indication and rationale for their use. In a patient continuing to have concerns about pain after a procedure, it is the responsibility of the dentists to assess the patient in person before prescribing multiple doses of analgesics.

Dentists must continually adapt their practices to serve their patients and society according to currently accepted professional standards. The Alberta Dental Association and College Code of Ethics Article A2: Current/continued competence states, "The privilege of dentists to be accorded professional status rests primarily in the knowledge, skill, attitude, and judgment with which they serve their patients and society. All dentists, therefore, must keep their knowledge of dentistry current and must provide treatment in accordance with currently accepted professional standards. Dentists have an obligation to maintain competence throughout their career and to comply with the Alberta Dental Association and College's Continuing Competence Program under the Health Professions Act of Alberta."

It is necessary for dentists to be knowledgeable of the issues related to prescription drugs, evaluate prescribing practices, and adapt as necessary to the current environment of increasing prescription opioid diversion and scrutiny of dentists prescribing habits.