Informed Consent for Opioid Use

I have agreed to use opioids as part of my treatment to manage dental related chronic or post operative pain. I understand that these drugs are useful in managing my pain, but have a high potential for addiction and/or dependency.

I understand that I can discuss possible alternatives for this opioid prescription with my dental prescriber and have furnished a complete and accurate medical history (including pregnancy, if applicable) and list of the medications I currently am taking or have taken in the last 6 months, including information about mental history and drug and/or alcohol use by me and members of my family.

Because my dental provider is prescribing such medication to manage my pain, I acknowledge that I have been made aware of the following information and agree to the following conditions:

1. I am responsible for my pain medications and agree to take the medication not more frequently than as prescribed and only if needed to manage pain. I understand that increasing my dose without my dentist's knowledge could lead to a drug overdose causing severe sedation and respiratory depression and possibly death.

2. Without prior disclosure to my dental provider, I will not request or accept controlled substance medication from any other healthcare provider or individual while I am receiving such medication from my dental provider.

3. There are side effects with opioid medications, which may include, but not be limited to, skin rash, constipation, sexual dysfunction, sleeping abnormalities, sweating, edema, sedation, confusion, depression, increased sensitivity to pain or the possibility of impaired motor ability. As a result, when I take these medications, it may not be safe for me to drive a car, operate machinery, or take care of other people.

4. I have been made aware that I may become addicted to these medications (opioids) and may require addiction treatment. Overuse of this class of medication can lead to physical dependence and the experience of withdrawal sickness if I stop use or cut back too quickly. Withdrawal symptoms feel like having the flu and may include: abdominal pain, nausea, vomiting, diarrhea, sweating, body aches, muscle cramps, runny nose, yawning, anxiety and sleep problems.

5. I understand that the opioid prescription I have been given is for my own use and attest that I will not give or sell any portion of the prescription to another individual.

_____ _____

Patient, Parent or Guardian Signature Date

Medication Guide
for
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

(See the end of this Medication Guide for a list of prescription NSAID medicines.)

What is the most important information I should know about medicines called Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)?

NSAID medicines may increase the chance of a heart attack or stroke that can lead to death. This chance increases:

- with longer use of NSAID medicines
- in people who have heart disease

NSAID medicines should never be used right before or after a heart surgery called a "coronary artery bypass graft (CABG)."

NSAID medicines can cause ulcers and bleeding in the stomach and intestines at any time during treatment. Ulcers and bleeding:

- can happen without warning symptoms
- may cause death

The chance of a person getting an ulcer or bleeding increases with:

- taking medicines called "corticosteroids" and "anticoagulants"
- longer use
- smoking
- drinking alcohol
- older age
- having poor health

NSAID medicines should only be used:

- exactly as prescribed
- at the lowest dose possible for your treatment
- for the shortest time needed

What are Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)?

NSAID medicines are used to treat pain and redness, swelling, and heat (inflammation) from medical conditions such as:

- different types of arthritis
- menstrual cramps and other types of short-term pain

Who should not take a Non-Steroidal Anti-Inflammatory Drug (NSAID)?

Do not take an NSAID medicine:

- if you had an asthma attack, hives, or other allergic reaction with aspirin or any other NSAID medicine
- for pain right before or after heart bypass surgery

Tell your healthcare provider:

- about all of your medical conditions.
- about all of the medicines you take. NSAIDs and some other medicines can interact with each other and cause serious side effects. **Keep a list of your medicines to show to your healthcare provider and pharmacist.**
- if you are pregnant. **NSAID medicines should not be used by pregnant women late in their pregnancy.**
- if you are breastfeeding. **Talk to your doctor.**

NSAIDS Are Good, Decadron is Better



BY DRS. MARC GOTTLIEB AND JOSEPH KAMELGARD

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Both Drs. Gottlieb and Kamelgard have had no commercial support or conflict of interest in writing this article.

After years of suffering with episodic acute back pain and medicating myself with non-steroidal anti-inflammatory drugs (NSAIDs), I had an epiphany. It was December 2010, and my pain was so intense I couldn't take it any longer and scheduled an appointment with an orthopedic surgeon. During the consultation, we reviewed how often I was taking NSAIDs to manage my distress. As a practicing dentist and dental anesthesiologist, taking a narcotic was not practical for me. The orthopedic surgeon offered me two immediate options: a steroid injection or a steroid dose pack. I decided to try the steroid dose pack. Within 24 hours, I was feeling significantly better. That's when it hit me. I've been treating myself and my patients with NSAIDS, when I could be offering them locally infiltrated steroids. I will refer to locally infiltrated steroids from this point forward as injectable steroid anti-inflammatory drugs (INSAIDs).

After a brief literature review, I realized that — with rare exception — dental pain is acute and inflammatory in nature. Opioid medications only treat pain and do nothing to treat inflammation. NSAIDS administered prior to a procedure or immediately upon completion are effective in managing acute dental pain and swelling.[1] However, there are significant side effects and many older patients cannot tolerate this class of medication.[2] INSAIDs alone, or in combination with NSAIDs, appear to eliminate the need for addictive medications.

In January 2011, I started injecting steroids into the buccal fold opposite areas of oral surgery. Within a week, I quickly realized my patients had significantly less pain and swelling compared to a narcotic analgesic or regular doses of 800 mg ibuprofen. Then, I expanded my use of INSAIDs to my endodontic and periodontic procedures with similar results. Six years ago, I wrote approximately 40 Vicodin prescriptions a quarter. This past quarter I wrote two.

Through two case studies, I will demonstrate how effective INSAIDs are in reducing inflammation and swelling with minimal complications. The first case is of a 20-year-old Caucasian man with "Mountain Dew mouth" (sugar-induced rampant decay) that required removal of all his upper teeth. The second case is a 94-year-old Caucasian man on multiple medications with a history of bleeding that required removal of his remaining lower anterior teeth with associated alveoplasty.

In the first case, this young man presented with multiple carious and abscessed teeth. His personal medical history was unremarkable, taking no prescription medications and denied any known drug allergies. All his upper teeth from second molar to second molar were broken down to the gingiva and non-restorable. The plan for the lower arch was to restore and maintain a lower bicuspid occlusion. A full thickness flap was reflected from second molar to second molar with associated buccal alveo-

plasty. Upon completion of the surgery, a continuous suture was placed and 6 mg of dexamethasone was infiltrated into the buccal fold evenly around the arch. After weighing the risk benefit ratio of NSAIDs, a single dose of 800 mg ibuprofen was administered before he left the office. He remained asymptomatic and pain-free for the entire recovery period (**Figs. 1 and 2**).

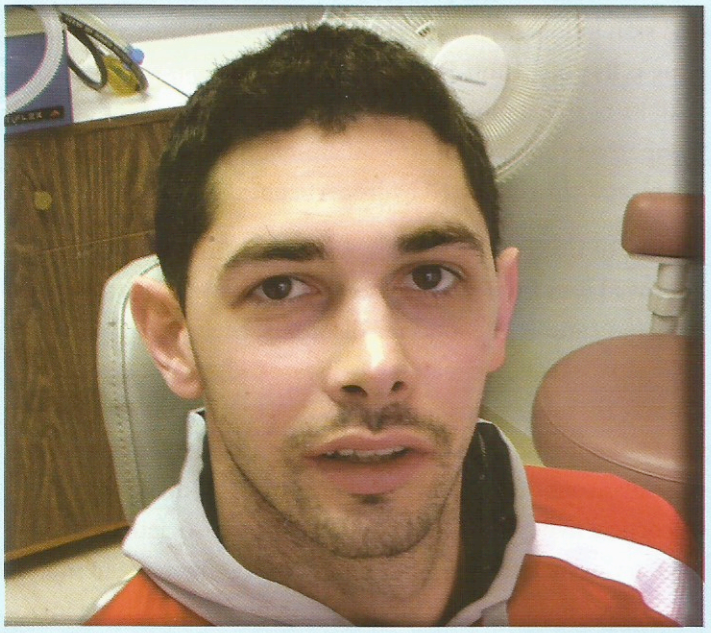


Fig. 1: Extraoral photo taken 24 hours after the surgery.

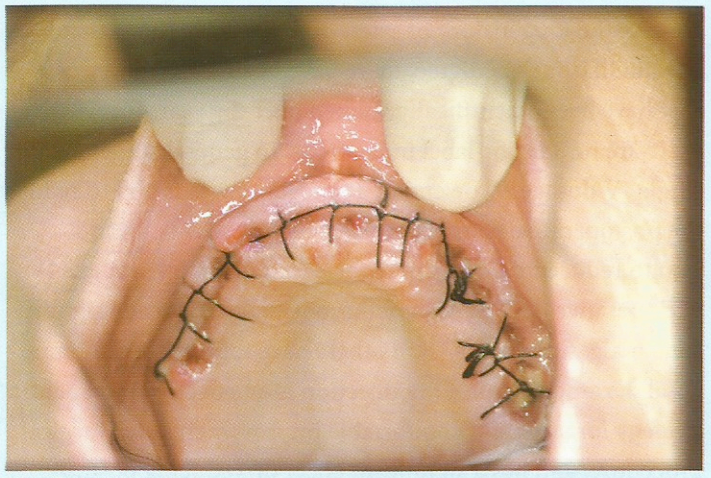


Fig. 2: Intraoral view.

Managing the pain of medically compromised patients can be a real challenge. They often have multiorgan disease and NSAIDs often are contraindicated due to advanced cardiovascular disease or drug interactions with their aspirin or other blood thinners. In the second case study, our 94-year-old man has limited mobility and requires a walker to reach the dental operatory. Clinical exam revealed the classic black-and-blue discoloration on the extremities and posture you would expect of a geriatric patient. His current medications are Atenolol, Aleve, aspirin and potassium. Our dental treatment plan was to remove his remaining five lower anterior teeth and place an immediate lower denture. Medical clearance was obtained from his physician and a pain-management strategy was established. Our plan was to infiltrate 4 mg of dexamethasone evenly in the buccal vestibule opposite the surgery in combination with 500 mg of acetaminophen taken by mouth every four to six hours as needed. The surgery went well with minimal bleeding. A full thickness flap from lower left cuspid (No. 22) to lower right cuspid (No. 27) was reflected with a buccal alveoplasty to remove a significant undercut. Then, the lower denture was inserted with a soft reline material. After 24 hours, he presented for his first follow-up visit with no pain, having never taken the acetaminophen (**Figs. 3-6**).

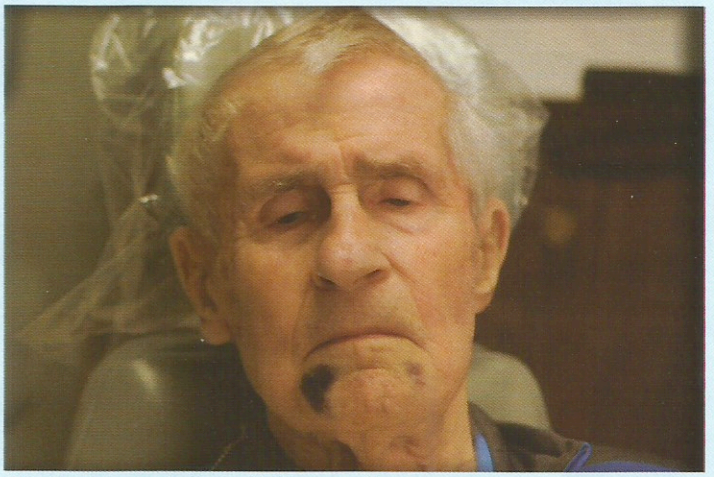


Fig. 3: Extraoral photo 24 hours after surgery

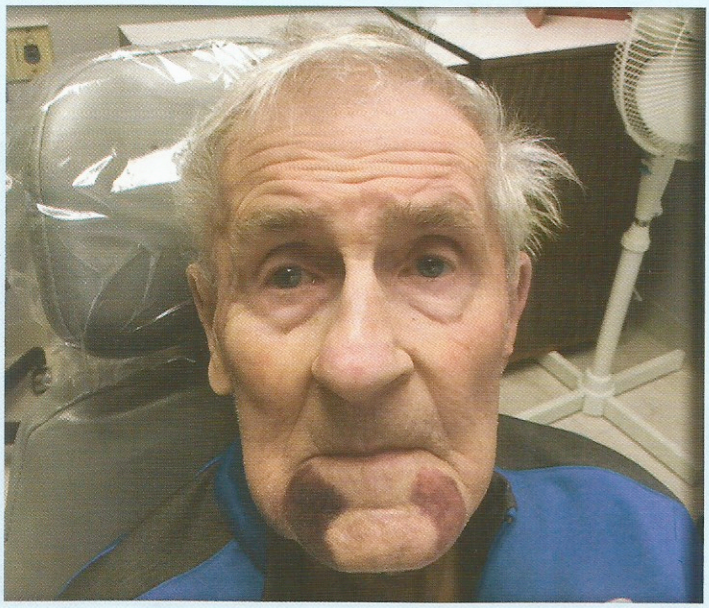


Fig. 4: Intraoral view.

The dental literature is full of various levels of scientific evidence that steroids reduce the amount of pain and swelling following third molar surgery or orthognathic surgery.[3] I've treated the other 28 teeth in the mouth for more than six

SEE PAGE 64





Figs. 5-6: 48 hours showed increased bruising, but no significant swelling and no pain. Over the next six days, he required one sore spot adjustment and after 10 days, looked perfectly normal.

FROM PAGE 63

years with amazing success. I currently inject approximately 50 doses of Decadron (dexamethasone) every month for a variety of dental indications with inflammation. I use steroids cautiously when treating diabetics and haven't used the medication on any patients under the age of 18. Diabetics will experience a temporary 24-hour increase in their blood glucose. Dexamethasone appears to be a potent anti-inflammatory drug with minimal side effects (**Fig. 7**). My patients appreciate managing their discomfort without having to take opioid medications.

More about Dexamethasone

Dexamethasone is a synthetic adrenal glucocorticoid, which binds to specific steroid receptors acting as a corticosteroid hormone receptor agonist.[4] The drug was first produced in 1957[5] and due to its myriad of uses, currently finds itself listed on the World Health Organization's List of Essential Medicines.[6] It can be found in solid form for oral administration as well as a soluble inorganic ester form for intravenous, intramuscular, intra-articular, soft tissue and intralesional injections. Additional preparations exist for use as eye drops and skin lotions. What makes dexamethasone such a valuable drug is its potent anti-inflammatory property in combination with its nearly complete lack of causing sodium retention (as compared to equipotent anti-inflammatory doses of hydrocortisone and closely related hydrocortisone derivatives).

The list of U.S. Food and Drug Administration- (US-FDA) approved uses for dexamethasone is extensive. It has approved label indications in endocrine disorders, rheumatic disorders, collagen diseases, dermatologic diseases, allergic states, ophthalmic diseases, gastrointestinal diseases, respiratory diseases, hematologic disorders, neoplastic diseases, edematous states, miscellaneous other conditions, diagnostic testing of adrenocortical hyper-function, cerebral edema associated with primary or metastatic brain tumor, craniotomy or head injury. Additional indicated use for intra-articular or soft tissue injection exist, as well as those for intralesional injection.

Despite the long history of safety and extensive usage that is dexamethasone's pedigree, there have been some newer uses that have been scientifically studied over the years for which there are no specific label indications. In general surgery, a single IV dosage at the end of a procedure was found to reduce the postoperative nausea experienced by patients, in addition to reduced pain scores reported. In dentistry, a single IV perioperative dose of dexamethasone had statistically significant analgesic benefits.[7] Still others have found that a submucosal dexamethasone 4 mg injection is an effective therapeutic strategy for swift and comfortable improvement after surgical procedure, and has a significant effect on reducing postoperative pain and swelling.[8] This last point can not be stressed enough. In the current environment of excessive opioid usage and addiction, having a protocol in one's arsenal of pain management where narcotic medications are almost never needed is a powerful tool every dentist should be aware of. To be clear, however, despite the US-FDA label indications for acceptable uses of soft tissue injections of dexamethasone, treatment of acute dental procedure pain and prevention of postoperative opioid requirements is NOT a specified indication (but should be)!

Corticosteroid Comparison Chart

	Equivalent Glucocorticoid Dose (mg)	Potency relative to Hydrocortisone: Anti-Inflammatory	Potency relative to Hydrocortisone: Mineral-Corticoid	Half-Life: Plasma (minutes)	Half-Life: Duration of Action (hours)
Short Acting					
Hydrocortisone (Cortef, Cortisol)	20	1	1	90	8-12
Cortisone Acetate	25	0.8	0.8	30	8-12
Intermediate Acting					
Prednisone	5	4	0.8	60	12-36
Prednisolone	5	4	0.8	200	12-36
Triamcinolone	4	5	0	300	12-36
Methylprednisolone	4	5	0.5	180	12-36
Long Acting					
Dexamethasone	0.75	30	0	200	36-54
Betamethasone	.6	30	0	300	36-54
Mineralocorticoid					
Fludrocortisone	0	15	150	240	24-36
Aldosterone	0	0	400 +	20	- -

Reference: Adrenal Cortical Steroids. In Drug Facts and Comparisons. 5th ed. St. Louis, Facts and Comparisons, Inc.:122-128, 1997

Commonly Prescribed Replacement Steroid Equivalents

Prednisone		Cortisone		Dexamethasone		Hydrocortisone (Cortef)
5 mg	=	25 mg	=	0.75 mg	=	20 mg

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