

# **Successful Treatment of Anxious and Special-needs Patients**

**Harvey Levy, DMD, MAGD**

**Niagara Dental Meeting  
Buffalo, NY  
Sept 27, 2013**



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Harvey Levy, DMD, MAGD  
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## Niagara Dental Meeting, Buffalo, NY Course Schedule

### Friday, Sept 27, 2013

8:30-9:00	Introduction; Around the room experiences
9:00-10:30	Debunking the Myths
10:30-11:00	Case review (Huntington's Disease, constant movement)
11:00-11:30	Demonstrations
	1. Develop, expose and process Ergonom-X Self-developing dental films
	2. Expose & process x-ray images - DEXIS Digital with NOMAD-Pro
	3. Place a Nitrous Oxide mask - Porter Instrument
	4. Apply a Rainbow Wrap - Specialized Care Co.
	5. Apply 3 different mouth props: Specialized Care Co., Isolite, Hu-Friedy
	6. Perform an Oral Cancer exam using two different Identafi tips
	7. Examine a patient using head light – Ultralight Optics
	8. Evaluate drug interaction with Lexi-comp software

[Lunch: 11:30 am – 1:00 pm]

1:00-2:00	Basics of Special-Needs dental care (access, wraps, props, lights)
2:00-3:45	Basics of Special-Needs dental care (imaging, gas, drugs, O.R.)
3:45-4:00	Review Pearls and Closing

Special-needs patient care is more than “why do people climb mountains”  
and “let's make a dollar.” It's a golden opportunity to use your gift, leave  
your mark, and make a positive difference. — Dr. Harvey Levy

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Niagara Dental Meeting, Sept 27, 2013

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This program is supported by gracious educational grant donations from Aribex, DentalEz, Lexi-comp and Septodont.

Special thanks also to DEXIS, Ergonom-X Dental Film, Isolite, Porter Instrument, Specialized Care, and Ultralight Optics and for their support and valuable contributions to this course.

# Debunking the Myths about Special-Needs Patient Care

Harvey Levy, DMD, MAGD

## Myths about treating special-needs patients, in short:

- They're too hard to treat.
- I can't make money.

### A. Administrative barriers

1. It's too difficult to communicate with them.
2. It's hard to get permission or consent to treat them.
3. It's a problem that they rely on others for transportation.
4. They don't keep their appointments or are late.
5. They are disruptive to the schedule.
6. I may have to treat them in a hospital, and getting hospital privileges is too hard.

### B. Management barriers

1. Repulsion factor: They urinate, defecate, expectorate and vomit anywhere.
2. I can't do quality work because they don't cooperate.
3. They are too difficult to restrain.
4. I can't get good x-rays.
5. I have to work around their wheelchairs or helmets.
6. They have disgustingly poor oral hygiene.
7. My staff will not want to work on them. I have a hard enough time attracting good staff.
8. It scares me to be in their presence.
9. It saddens me to work on these people - they have no future.

### C. Medical concerns

1. Pills alone wouldn't allow me to complete the procedure.
2. I'm afraid of having to use oral sedation greater than maximum recommended dose.
3. They have communicable diseases.
4. There may be no one to refer to, if I don't have the skills to perform a procedure.
5. I may not be able to handle their emergencies.

### D. Financial concerns

1. They're all on Medicaid and have no money.
2. It's too hard to ensure payment.
3. I don't want to buy expensive special equipment that I won't use much.
4. I'm only asked to do low-level, low-fee procedures on them.
5. Their treatment takes too long and requires too much staff to be cost effective.
6. Their appearance and screaming frighten away other patients.
7. They won't refer anyone.
8. They are high-risk medical patients. I don't want to be sued for complications.
9. Dentists who treat these people are the ones who can't succeed with regular patients.

# Successful Treatment of Anxious and Special-needs Patients

Harvey Levy, DMD, FDOCS, FAAHD, FADH, FASGD, FAAIM, FADI, FACFE, FAGD, MAGD, DDOCS, DCD, DABFD, DABSCD, CHS-III, LLSR, BCIM

- I. Why handle these cases?**
- II. Indications: Who are our patients?**
- III. How we go about treating anxious and special-needs patients**
  - A. Accessibility
  - B. Office Techniques
    - 1. Wraps and other restraints (least restrictive environment)
    - 2. Props and Blocks (wood & foam, rubber, plastic, Molt, Jennings, Isolite)
    - 3. Immobilize the head (five point contact and other restraints)
    - 4. Communicate with patient/caregiver
    - 5. Management and meaning of noises
    - 6. Autism and sound, light, tactile sensitivity
    - 7. Versatility
    - 8. Early morning appt, npo x 6 hr
    - 9. X-ray imaging systems and film
  - C. Nitrous Oxide Analgesia
  - D. Range of sedation:
  - E. Drugs (see Drugs handout for names and recommended doses):
  - F. Additional training available
  - G. If unsuccessful: reschedule, refer, or take to OR
- IV. Qualifying for a facility**
- V. Pre-operative – consultation and checklists**
- VI. At the hospital or surgicenter operating room**
- VII. Follow-up**
- VIII. In conclusion**
  - A. The Downside
  - B. The Upside

# Case Review: Huntington's Disease

Harvey Levy, DMD, MAGD

Niagara Dental Meeting, Sept 27, 2013

## **Loretta, 40 y-o WF**

### I. History and stats of Huntington's Disease

- Described by American physician George Huntington (1872) and called Huntington's Chorea ("dance")
- Cause attributed to single faulty gene on chromosome #4 (1993)
- Autosomal dominant (50% pass to child)
- Inherited, progressive, degenerative brain disorder
- Produces physical, mental, emotional changes with dementia and psychiatric problems
- One in 30,000 in U.S. with no race or gender bias
- Typical onset age 35-50
- Typically fatal within 15-20 years after onset of signs / symptoms
- Woody Guthrie (1912-67) died of it

### II. Manifestations of Huntington's Disease in Loretta

- Signs began when she was 28
- Continuous movement; tics and grimaces; sudden, jerky, uncontrolled movements
- Unsteady gait
- Depression
- Psychological symptoms

### III. Associated problems

- Trismus, dysphagia, dyslalia
- Reduced manual dexterity
- Facial muscle movements eject dentures

### IV. Dental concerns for Loretta:

- Pre-op Dx: Caries, fractured and abscessed teeth, gingivitis, xerostomia
- Treatment: Extractions, restorations, prophylaxis

First dental visit: 7-22-06; OR 8-24-06

## New York State Board of Dental Examiners

### R4-11-1303. Oral Conscious Sedation

A. Before inducing oral conscious sedation on an outpatient basis, a dentist shall possess a Section 1303 permit issued by the Board, unless the dentist qualifies for a permit under subsection (E). A dentist may renew a Section 1303 permit every three years

1. A dentist who possesses a Section 1301 or Section 1302 permit may also induce oral conscious sedation without obtaining a Section 1303 permit.

2. The administration of an anti-anxiety drug is not combination inhalation and enteral conscious sedation if:

- Only one dose of one anti-anxiety drug is administered;

- The intent of administering the anti-anxiety drug is anxiolysis only; and

- The administered dose of anti-anxiety drug is within the current guidelines for anxiolysis dosage on the package insert or other recognized drug reference.

- Conscious sedation means a minimally depressed level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation and verbal command and that is produced by a pharmacologic or non-pharmacologic method or a combination thereof. Patients whose only response is reflex withdrawal from repeated painful stimuli shall not be considered to be in a state of conscious sedation.
- Deep sedation means an induced state of depressed consciousness accompanied by partial loss of protective reflexes, including the inability to continually maintain an airway independently and/or to respond purposefully to physical stimulation or verbal command, and is produced by a pharmacologic or non-pharmacologic method or a combination thereof.
- Enteral means a technique of administration in which the agent is absorbed through the gastrointestinal tract or oral mucosa, including but not limited to oral, rectal, and sublingual administration.
- General anesthesia means an induced state of unconsciousness, accompanied by partial or complete loss of protective reflexes, including the inability to continually maintain an airway independently and respond purposefully to physical stimulation or verbal command, and is produced by a pharmacologic or non-pharmacologic method or a combination thereof.
- Inhalation means a technique of administration in which a gaseous or volatile agent is introduced into the pulmonary tree and whose primary effect is due to the absorption through the pulmonary bed.
- Parenteral means a technique of administration in which the drug bypasses the gastrointestinal tract, including but not limited to intramuscular, intravenous, intranasal, submucosal, subcutaneous, and intraocular administration.

# Nitrous Oxide/Oxygen, Drugs for Sedation, Reversal Agents, and Recommended Doses

## INHALATION AGENT FOR SEDATION: NITROUS OXIDE/OXYGEN

### The Basics of Nitrous Oxide/Oxygen “laughing gas”

- When used in dental offices for anxiolysis at 4-6 liters of gas flow per minute, nitrous oxide/oxygen has a relaxing and calming effect on most patients.
- It had a rapid onset within minutes, and is completely exhaled and expressed from the lungs within minutes due to its low blood/gas solubility.
- The maximum percentage of nitrous oxide is 70%, due the machine’s failsafe if the oxygen level drops below 30%.
- Gases flow two ways. Thus, scavenging system must be on whenever nitrous is on.

**Golden Rule:** When the nitrous is on, the bag must be moving.

### The three most important rules when using nitrous

1. The mask must be properly placed on the patient’s face.
2. Do not talk to the patient or allow them to converse while nitrous is flowing.
3. Ensure you are flowing the correct amount of gas.

## DRUGS FOR OFFICE SEDATION

<b>1. Chloral Hydrate / Noctec®</b>	Adult 50-75 mg/kg; max 2 g Child 50-75 mg/kg; max 1g
<b>2. Hydroxyzine / Atarax®, Vistaril®</b>	Adult max 50-100 mg Child 0.6 mg/kg

### 3. Benzodiazepines

<b>a. Diapezam / Valium®</b>	Adult 2-20mg; max 20 mg; Child 0.2-0.3 mg/kg; max 10 mg
<b>b. Triazolam / Halcion®</b>	Adult max 0.25-1.5 mg; Child max 0.125-0.25 mg.
<b>c. Lorazepam / Ativan®</b>	Adult 1-4 mg; Child 0.05 mg/kg; max 2 mg
<b>d. Midazolam / Versed®</b>	Adult 0.25-1 mg/kg; max 20 mg; Child 0.25-1mg/kg; max: 20 mg



## DR. LEVY'S RECOMMENDED DOSES (FOR ADULTS)

- Nitrous Oxide / Oxygen - titrate to desired effect for patient, (often 50%);
- Chloral Hydrate / Noctec® 1-2 g liquid, capsule, suppository;
- Hydroxyzine / Atarax® or Vistaril® 10-50 mg tablet or syrup;
- Diazepam / Valium® 10-20 mg tablet, solution, rectal;
- Triazolam / Halcion® 0.5-1.5 mg tablet;
- Lorazepam / Ativan® 2-3 mg tablet, solution, injection;
- Midazolam / Versed® 5-15 mg with monitoring; syrup, injection;

## REVERSAL AGENTS

### 1. Flumazenil / Romazicon®

<b>Description</b>	Benzodiazepine receptor antagonist
<b>Indications</b>	Reversal of the sedative effects of benzodiazepines.
<b>Dose</b>	Adults: IV Initial: 0.2mg/kg. Max Total Dose: 1mg. Children >1yr: IV Initial: 0.01mg/kg (up to 0.2mg). Max Total Dose: 0.05mg/kg up to 1mg.

2. Phentolamine Mesylate / OraVerse® Reverses the vasoconstrictor component of local anesthetic formulations, allowing faster return to normal nerve sensation if used at the same site as the original injection. It has no contraindications, and is supplied in 0.4 mg/1.7 mL cartridges.

## Sources used for drug information included in this course

PDR (Physician's Desk Reference), 2013 and [PDR.net](http://www.pdr.net)

Lexi-Comp's Dental Reference Library, 16<sup>th</sup> edition and [www.lexi.com](http://www.lexi.com)

"Control of Nitrous Oxide in Dental Operatories," U.S. Department of Health and Human Services, CDC, January 1996

"ADA Guidelines for the Use of Sedation and General Anesthesia by Dentists," October 2007. [http://www.ada.org/sections/about/pdfs/anesthesia\\_guidelines.pdf](http://www.ada.org/sections/about/pdfs/anesthesia_guidelines.pdf)

"Guideline on Appropriate Use of Nitrous Oxide for Pediatric Dental Patients", AAPD, Revised 2009. [www.aapd.org/media/Policies\\_Guidelines/G\\_Nitrous.pdf](http://www.aapd.org/media/Policies_Guidelines/G_Nitrous.pdf)

"Reversal of soft-tissue local anesthesia with phentolamine mesylate in pediatric patients". Journal of the American Dental Association **139**, 1095-1105. Aug. 2008.

## INSTRUCTIONS FOR SAME DAY HOSPITAL DENTAL TREATMENT

We have agreed to dental treatment in the operating room at Frederick Memorial Hospital (FMH). The list below should be followed exactly and completely.

### 1. **Physical Exam**

- a. Exam must be done within 7 days before surgery, or within 30 days and updated within 7 days by a licensed physician.
- b. The exam form should be faxed to FMH, 240-566-3636.
- c. If your physician is not on staff at FMH, please have your doctor fax a credential-approval form to the hospital at 240-566-3636.

### 2. **Lab Tests (Pre-admission tests)**

- a. Pre-op testing will be ordered as applicable, depending on age, gender, and health history.
- b. To schedule tests done at FMH, call 240-566-3400. If you go to a lab outside the hospital, they should fax results to FMH at 240-566-3636.
- c. Be aware that some insurance plans require you to go to specific labs.

### 3. **Consent Form:** An informed consent form must be signed and witnessed less than 30 days before surgery.

- a. If the patient is a minor or not of sound mind, a parent or legal guardian must sign. They must provide a copy of the Power of Attorney or Guardianship document.
- b. The witness must NOT be a relative.

### 4. **Financial Arrangements:** Our practice will charge you a fee for the specific dental services, plus a \$260 **dental** operating room surcharge not covered by most insurance carriers. Your hospital O.R. facility and anesthesia fees are billed separately.

- a. Your estimated uninsured portion is required before the O.R. date.
- b. After insurance has handled your claim, adjustments will be made and included in a billing statement that you will receive. If you have overpaid us, you may request a refund or credit.
- c. Discounts are available per our Office Financial and Insurance Policy. Applications for credit through CareCredit are also available.

### 5. **No Food or Drink:** The patient must have absolutely nothing to eat or drink after midnight prior to treatment. Check with the doctor regarding any necessary medicines.

### 6. **Arrival:** Be at the hospital 1½-2 hours before the scheduled surgery time.

### 7. **Follow-Up:** On the day after surgery, call the dental office for a one-week follow-up exam to be certain the mouth is healing normally, and to follow-up on financial arrangements. Thank you.

# Sample of Staff Pre-Operative Checklist

Dr. Harvey Levy and Associates, PC

Patient Name / Age: \_\_\_\_\_

Consult Date / Pat Preferred Phone: \_\_\_\_\_

Case Date / Time / Case #: \_\_\_\_\_

1. DOB: \_\_\_\_\_

2. Agency / Phone: \_\_\_\_\_

3. Parents / Guardian: \_\_\_\_\_

Phone(s): \_\_\_\_\_

4. Diagnosis: \_\_\_\_\_

5. Treatment: \_\_\_\_\_

6. Time Needed: \_\_\_\_\_ Seq.: \_\_\_\_\_ Hyg Needed? Y/N \_\_\_\_\_

7. INSURANCE: Medical \_\_\_\_\_ Pre-Auth. \_\_\_\_\_

Dental \_\_\_\_\_ Pre-Auth. \_\_\_\_\_

8. PHYSICIAN: \_\_\_\_\_

H&P Date: \_\_\_\_\_ H&P Completed \_\_\_\_\_

Lab Date: \_\_\_\_\_ Lab Completed \_\_\_\_\_

Other Tests: \_\_\_\_\_ Co-Operate? \_\_\_\_\_

9. TO BRING: Copy of x-rays \_\_\_\_\_ Models \_\_\_\_\_ Latest TxPlan \_\_\_\_\_

Appliances (spacer, dentures) \_\_\_\_\_ Post-Op Instr./Rx \_\_\_\_\_

Materials (C&B, RCT, shade guide) \_\_\_\_\_

10. CONSENTS: Blue anesthesia consent \_\_\_\_\_ Pink surgical consent \_\_\_\_\_

Other form(s) as needed \_\_\_\_\_ Guardianship \_\_\_\_\_

11. FINANCIAL: Deposit made \_\_\_\_\_ Arrangements for balance \_\_\_\_\_

12. Miscellaneous: \_\_\_\_\_

FINAL CHECK OFF BY (Name & Date): \_\_\_\_\_

## Sample 1 – Letter of Medical Necessity

Harvey Levy, D.M.D., M.A.G.D.  
198 Thomas Johnson Dr., Suite 108  
Frederick, Maryland 21702  
301 663-8300 (Voice or TDD)  
301 682-3993 Fax  
October 15, 2012

Dewey, Cheatem and Howe Insurance Co.  
Mytown, US

Re: **TERESA XX XX (DOB XX-XX-95)**  
ID #XXX-XX-XXXX

Dear Insurance Plan executive,

This is a letter of medical necessity for urgent medical and dental procedures via out patient general anesthesia planned for November 9, 2012 at Frederick Memorial Hospital in Frederick, Md. We request facilities and anesthesia expense coverage.

The patient is a severely apprehensive, mentally challenged 11 year-old who has an acutely abscessed tooth and multiple dental caries. She suffers from situational anxiety, seizure disorder, ADHD, and mental retardation. Treatment was tried and failed in several dental offices. Multiple treatment visits via oral sedation in an office setting is not an option. The following is the diagnosis and treatment plan:

Diagnosis: Dental caries, abscessed teeth: ICD-9 code 522.5, 520.6  
Treatment: Hospital O.R. visit ADA code 9420, D9220; Extractions, restorations, cleaning: 7111, 7140, 2140, 2150, 2160, 1110, CPT code 41899 and 00170.

Currently, this patient is in pain. Delayed treatment will be detrimental to the patient's health, nutrition intake, and quality of life. We respectfully request that this medically necessary treatment be approved for insurance benefits. Please call and/or fax a prompt response to at the above address or fax number. Thank you.

Respectfully,

Harvey Levy, D.M.D., M.A.G.D.

xc: Frederick Frankenstein, MD; Dr. Phil McGraw, PhD; G.V. Black, DDS

# Mad Lib 1 Participatory Activity

Fun Town Memorial Hospital  
Fun Town, Maryland 21702

## Operative / Procedure Report

Med Record # 0000001

\_\_\_\_\_  
(Patient name)

\_\_\_\_\_  
(Date of Birth)

**Date of Procedure:** 06-15-2011

**Preoperative Diagnosis:** Multiple dental caries and \_\_\_\_\_

**Postoperative Diagnosis:** Multiple dental caries, \_\_\_\_\_ and \_\_\_\_\_

**Operation Performed:** Dental restorations, extractions and \_\_\_\_\_

**Surgeon:** \_\_\_\_\_  
(Your Name)

**Assistant:** \_\_\_\_\_  
(Dental Assistant) (Dental Assistant) (Other person)

**Anesthesiologists:** Dr. Max Hillary, relieved by Dr. Manny Dibulaire

The throat pack was inserted at \_\_\_\_\_. The throat pack was removed at \_\_\_\_\_.  
(Time) (Time)

**Narrative:** The patient is a \_\_\_\_\_ year old, \_\_\_\_\_ female with Alzheimer's Disease,  
( Age) (Race)  
, and \_\_\_\_\_ who has been a patient of

(Medical diagnosis) (Medical diagnosis)  
Record since 1/1/29. She was operated by me at the Happy Camper Surgicenter on \_\_\_\_\_.  
(Date)

She now has a recurrence of her \_\_\_\_\_. She also now has  
(Dental diagnosis)

\_\_\_\_\_.  
(Medical diagnosis)  
The patient had H&P by Dr. \_\_\_\_\_ with appropriate PATS. The only  
(Physician)

abnormal value was her \_\_\_\_\_. She reported  
to the hospital NPO ready for outpatient general anesthesia. She was accompanied by her  
children, grandchildren, and great grandchildren, one of whom has guardianship and POA for the  
patient. The indication for general anesthesia is \_\_\_\_\_.  
(reason for general anesthesia)

**Operative Procedure:** After successful nasal intubation by Dr. Max Hillary, the patient was  
prepped and draped in the usual manner for dental restorative care and minor oral surgery. After  
the throat pack was placed at \_\_\_\_ a.m., I performed a re-evaluation of the preoperative oral  
findings and performed a \_\_\_\_\_. I noticed the following:  
(dental procedure)

\_\_\_\_\_.  
The patient was given \_\_\_\_\_ IV intra-operatively for \_\_\_\_\_.  
(Medicine) (Diagnosis)

I then turned my attention to the restorative phase where the following procedures were performed:

Tooth # \_\_\_\_\_ Occlusal amalgam.  
Tooth # \_\_\_\_\_ \_\_\_\_\_ composite  
(Surface)  
Tooth # 12 Simple extraction.  
Tooth # 15 \_\_\_\_\_.  
Tooth # 17 Simple extraction  
Tooth # 32 Surgical extraction.

I used \_\_\_\_\_ carpules of \_\_\_\_\_ for a bimandibular block  
(Number) (Local anesthetic)  
and multiple maxillary infiltrations. I did not use lidocaine because \_\_\_\_\_.  
We placed Copal varnish and then packed and carved the amalgams to proper contour. The  
composite used was \_\_\_\_\_  
(brand and shade)

All extracted teeth were in toto with the exception of tooth #32 which fractured into multiple  
pieces. I hemisected tooth #32 and removed 6 fragments after reflecting a full thickness  
mucoperiosteal flap. The distobuccal root tip was not retrieved. I plan to

\_\_\_\_\_.  
(plan for fractured root)

The clean socket was irrigated with \_\_\_\_\_ and closed with \_\_\_\_\_ 3-0 black silk sutures.  
(Irrigant) (Number)

After obtaining partial hemostasis, a thick topical fluoride coating was applied to all teeth. The  
patient tolerated the operation very well. EBL was \_\_\_\_\_ cc. Specimens removed were  
\_\_\_\_\_ teeth and \_\_\_\_\_ fragments. (Number)  
(Number) (Number)

Complications: \_\_\_\_\_  
(Complications)

The throat pack was removed at \_\_\_\_\_ a.m. The patient was then extubated and brought to  
(Time)  
the recovery room in \_\_\_\_\_ condition. She will be seen in my office in \_\_\_\_\_ weeks  
(Number)  
for outpatient follow-up and suture removal. She will be seen sooner if there are any  
complications from today's operation.

The patient and her family were given the standard post-restorative and post-extraction care  
instructions with restricted diet and restricted activities today. For post-op pain she was given  
\_\_\_\_\_. She was also given a prescription for  
(Dose and drug)

\_\_\_\_\_.  
(Dose and drug)

Please send copies of this report to: \_\_\_\_\_

Thank you.

\_\_\_\_\_  
( Doctor's name and Signature)

CC: \_\_\_\_\_ and \_\_\_\_\_  
(Primary Physician) (Referring Dentist)

## Resources

Harvey Levy, DMD, MAGD  
[www.DrHLevyAssoc.com](http://www.DrHLevyAssoc.com)

Niagara Dental Meeting, Buffalo, NY; Sept 27, 2013

**ADSA**

877-255-3742  
[www.adsahome.org](http://www.adsahome.org)

**Aribex NOMAD hand-held X-ray**

801-226-5522  
[www.aribex.com](http://www.aribex.com)

**Colgate-Palmolive**

800-2Colgate  
[www.ColgateProfessional.com](http://www.ColgateProfessional.com)

**DentaleZ Group**

866 DTEINFO  
[www.dentalez.com](http://www.dentalez.com)

**DEXIS X-ray Systems**

888-883-3947  
[www.dexis.com](http://www.dexis.com)

**DOCS Education**

877-325-3627  
[www.DOCSeducation.org](http://www.DOCSeducation.org)

**Ergonom-X Self-developing film**

Cramer Dental Sales  
800-723-4895  
[www.cramerdental.com](http://www.cramerdental.com)

**Hu-Friedy**

800 HUFRIEDY  
[www.hu-friedy.com](http://www.hu-friedy.com)

**Isolite Systems**

800-560-6066  
[www.isolitesystems.com](http://www.isolitesystems.com)

**Lexi-comp**

800-837-5394  
[www.lexi.com](http://www.lexi.com)  
[www.wolterskluwerhealth.com](http://www.wolterskluwerhealth.com)

**Porter Instrument - Nitrous Oxide**

888-723-4001  
[www.porterinstrument.com](http://www.porterinstrument.com)

**Septodont**

800-872-8305  
[www.oraverse.com](http://www.oraverse.com)

**Special Care Dentistry Association**

312-527-6764  
[www.scdaonline.org](http://www.scdaonline.org)

**Specialized Care Co.**

800-722-7375  
[www.specializedcare.com](http://www.specializedcare.com)

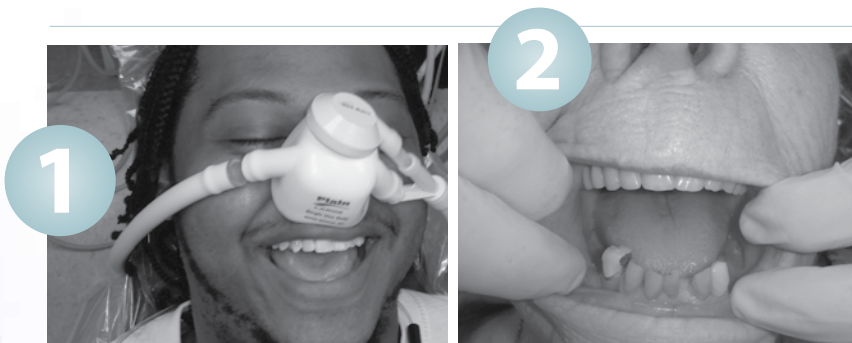
**Ultralight Optics**

323-316-4514  
[www.ultralightoptics.com](http://www.ultralightoptics.com)

**Walter Lorentz Surgical / Biomet**

574-267-6639  
[www.biomet.com](http://www.biomet.com)

**Dr. Levy's on-line courses:** [www.DentalEdu.TV](http://www.DentalEdu.TV), or direct link from  
[www.DrHLevyAssoc.com/clinicians.htm](http://www.DrHLevyAssoc.com/clinicians.htm)



# “Impossible” Dentistry Made Simple

by Harvey Levy, DMD, MAGD, DDOCS

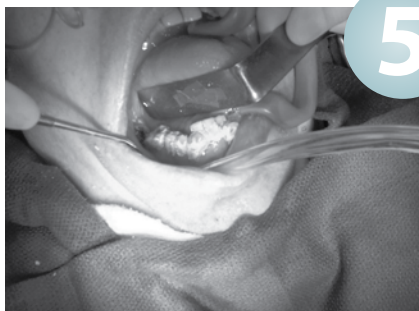
12

**Y**ou are a master at doing all sorts of restorations: you’re highly skilled at bridges, partials, perio, most extractions and most endo – you’re even pretty good at implants and other high level procedures. Despite your talents, however, what do you do when a patient won’t open his mouth? How do you respond when he won’t stop thrashing, can’t understand your simplest directions or is so frightened that he can’t comply despite his best intentions? Finally, how do you treat a patient who is so medically compromised that you can’t use any local anesthetic?

It is possible for you to perform your normal dental procedures on patients that are currently impossible to work on, and make a handsome profit as well. This is how:

- Proper training
- Trained staff (including CPR, desensitization, familiarization with equipment and drugs, including nitrous oxide)
- Proper attitude
- Special equipment: Pedi-wrap, mouth props, self-developing film, handheld x-ray unit





I had already completed thousands of sedation cases in my 34 years of practice before obtaining my Fellowship and Diplomate from DOCS Education. I am now working with the greater confidence that comes from being more knowledgeable about “wise dosing,” and being more mindful and careful. I found that the DOCS protocols allow for safer management of difficult and apprehensive patients, while providing the best in dental care.

With the right training, staff, equipment and mindset, you can perform a valuable service to this niche of neglected and undertreated patients. You can feel great about your clinical and management successes, and be rewarded emotionally and financially.

I am not always successful on the first try. Sometimes I reschedule for another day. Sometimes I have to abort and treat the patient in a hospital or surgi-center operating room. Below are seven examples of different types of patients we treated successfully in our office, all of whom required anxiolysis or conscious sedation.

### Examples of office sedation

**1** Anxious: Ken is a large, anxious 26-year-old male who avoided dentists for years, but needed composites, periodontal scaling, and extraction of abscessed third molars. With 10 mg Valium® and nitrous oxide, we elicited a smile from Ken and successfully performed the treatment.

**2** Geriatric: Ruby is an 83-year-old female who is a partially deaf cancer patient. She required three extractions, two composites, periodontal scaling, and repair of her lower partial denture. She takes one aspirin a day for blood thinning, and is extremely anxious. In cooperation with her physician, we withheld her aspirin for 5 days preoperatively plus one day post-op, and gave

her 20 mg Valium one hour pre-op. Using nitrous oxide, we scaled her salvageable teeth, then extracted the three abscessed teeth. A week later, with 5 mg Valium®, we placed the two composites and delivered the repaired partial.

**3** Fearful child: Andrew is a 4-year-old frightened boy who had dental caries and an abscessed tooth. We gave him 500 mg chloral hydrate plus 20 mg Atarax® plus nitrous oxide to place composites and extract the abscessed tooth. We used Pedi-Wrap® and dad’s lap for gentle protective restraint.

**4** Autistic: Sophie is an autistic 8-year-old girl who had an abscessed tooth. With 1 gm chloral hydrate plus 20 mg Atarax®, we used Pedi-Wrap® to take impressions and then extract the abscessed tooth. Two weeks later, we employed the same protocol to cement the space maintainer.

**5** Medically compromised: Ed is a 49-year-old male nursing home resident who was in a coma for 8 years following a 1991 direct lightning strike. He is non-verbal, unable to open wide or stop quivering. After placing 2 gm chloral hydrate plus 30 mg Atarax® elixir into his g-tube and playing his favorite country music, Ed remained in his gurney as our hygienist removed his calculus bridges.

**6** Mentally challenged: Marylou is a 46-year-old mentally challenged female who had periodontitis, dental caries, and missing teeth. She is hyperactive with psych disorders and low blood pressure. With 1 mg Halcion®, we were able to scale the mouth, place four restorations, and take impressions for removable partial dentures. Currently, she is wearing her appliances, which her counselors insert and remove each day.

7



8



9



**7** Mentally challenged and wheelchair-bound: Linda is a 62-year-old female with cerebral palsy, hypertension, hip fracture, psych disorders, who is mentally challenged and wheelchair bound. She had periodontitis and two abscessed teeth. With 0.5 mg Halcion®, she had an anxiety and hypertensive episode in our waiting room before even being seated. On a different day, with 10 mg Valium®, we uneventfully scaled her entire mouth, and extracted the two abscessed teeth as she remained in her wheelchair.

Sometimes no amount of office sedation suffices to relax the patient sufficiently. About 75 times per year I work on patients under general anesthesia at our hospital operating room (OR). Prior to the OR we attempt, at the office, to obtain a thorough oral exam, radiographs and models, employing one of the DOCS protocols. We follow-up every OR case at the office, when we check the occlusion on the restorations, clean out the extraction socket, remove the sutures, get a post-op root canal film, cement a crown or bridge, insert a space maintainer, or deliver an appliance. Here are two examples of combined office/OR cases:

#### Example of combined office sedation/ hospital OR general anesthesia cases:

**8** Seth is a 22-year-old male with Klippel-Feil syndrome. He is a deaf young man who has trismus, c-spine fusion with no neck mobility, and cardiomyopathy. With 10 mg Valium®, we were able to perform an oral exam and get some radiographs. We then went to the hospital OR to perform periodontal scaling, restorations, root canals, frenectomy, extractions, and crowns. Two weeks later, in the office, with 10 mg Valium®, we checked the surgical sites and occlusion on the restorations, and cemented all the crowns.

**9** Loretta is 42-year-old female with Huntington's Disease. She is a retired nurse whose disease includes poor balance and dexterity, constant head and body movement, and anxiety. In the office, we were able to obtain an exam, radiographs and models. In the hospital OR, we performed scaling, restorations, extractions, and seven crowns. In the office two weeks later, with 2 mg Ativan®, we checked the restorations, extraction sockets,

and cemented all seven crowns. The patient's constant movements were controlled enough for us to successfully complete the case.

We have had many similar cases where referral to an oral surgeon would have addressed only the surgical component of the treatment, and where a pedodontist would not have welcomed older patients. My staff and I have found sedation dentistry to be personally and professionally satisfying. It expands our repertoire of treatment offerings. We welcome the gratification that comes with the successful outcomes, for management failures in the office are invariably followed by success in the operating room.

The demand and the need are clearly there. These anxious and special-needs patients deserve the same quality of dental care as everyone else. They want it. They need it. They will pay for it. Everyone will benefit. Consider trying it yourself—go out and embrace it. You can definitely make the “impossible” happen.



*Dr. Harvey Levy is a general dentist from Frederick, Maryland who has earned Mastership and Lifelong Learning Service Recognition in the AGD along with eight Fellowships and four Diplomate certifications. He completed a two-year residency in Rochester, NY, and was a GPR clinical residency director at the Univ. of Penn. Hospital. With 34 years of clinical experience in treating special-needs patients, he has written articles, produced audio and video tapes, taught many special-needs patient care courses, and lectured about the management of special patient care. His work earned him the 1986 AGD Humanitarian Award, the ADA Access to Care Award, and he was a 2002 Winter Olympic torch runner. To date, Dr. Levy has treated 1,000 patients in the OR and 30,000 patients in his office with oral sedation.*

#### RESOURCES:

Aribex Nomad Handheld x-ray unit  
Aseptico, Inc.  
800-426-5913 | [www.aseptico.com](http://www.aseptico.com)

Ergonom-X self-developing film  
Cramer Dental Sales, Inc.  
800-723-4895 | [www.cramerdental.com](http://www.cramerdental.com)

Pedi-wraps and foam mouth props  
Specialized Care Co.  
800-722-7375 | [www.specializedcare.com](http://www.specializedcare.com)

# Management of Anxious and Special-Needs Patients: THERE'S ALWAYS A WAY

by Harvey Levy, DMD, MAGD, LLSR

With excitement and eager anticipation you set out to join your loving relatives for a festive holiday meal at their place. You have been driving for quite a while and can almost smell the familiar food when you encounter a total standstill on the highway. You spot an exit and drive off to a secondary road, but after a few minutes you see a tree totally blocking your way. You assess your options, and decide to take an even more indirect route. Eventually you make it to your destination, albeit via a more circuitous, time consuming and less traveled path. But you made it, and the trip feels all the more worthwhile for the travails, obstacles and threats to the completion of your journey.

Management of anxious patients similarly starts out on the main highway. Due to circumstances over which you have little control, you are often forced to try another approach. So you veer off and try a different modality that looks promising but that does not quite allow you to complete your treatment plan. You pull one more rabbit out of your hat and voilà, you've finally treated your patient successfully.



Fig 1: Anxious boy is comfortable and safely restrained with wrap

## ANXIOUS PATIENTS

Anxiety by definition is “worry gone out of control”. It is irrational and illogical, but frighteningly real to the patient. You, the dentist, don’t have to understand it. In fact, unless you’ve experienced it, you cannot understand it. Try describing the color blue to a congenitally blind person and you will appreciate the impossibility of understanding a patient’s situational anxiety.

Now magnify that anxiety, compounding it with the kind of fear felt by young children who can’t yet understand. Or with the fear felt by Alzheimer’s patients who can no longer understand. Or with the fear of mentally challenged patients who never understood. Or even worse, with the fear felt within the isolated misunderstood

world of autistic patients. Not all anxious people are special-needs patients, but all special-needs patients are anxious.

How do we gain their cooperation, in order to provide them with the dental treatment they need? The answer is... there is always a way. Always.

For the most extreme case – that of the patient who cannot be seen at a dental office due to high medical risk, paradoxical reactions to medications, or extreme adverse behavior – success can be assured in a hospital or surgical center operating room (OR). For other cases along the spectrum, there are many alternative roads.

Some dentists try behavior modification, which often includes multiple orientation and familiarization visits. But who has the patience, and who will pay for these multiple “let’s get familiar” visits? Assuredly, not the insurance companies.

Some dentists have limited success with hypnosis or acupuncture, which works for a small number of patients. The majority of our anxious and special needs patients are refractory to these methods, forcing us to try a different avenue.

## PRESCRIPTION DRUGS FOR ORAL CONSCIOUS SEDATION

Let’s start by relaxing the patient with a little medicine. Some dentists will prescribe a p.o. or enteral relaxant, sedative or hypnotic (“conscious sedative”) the night before to ensure a restful sleep, supplemented by more medication 30-60 minutes before the appointment. If that dose doesn’t relax the patient sufficiently, he or she may be given a little more while in the chair, or rescheduled to return another day with a higher dose or a different family of drugs (if a built-up resistance or tolerance to the initial choice is noted).

A variety of drugs are available for use as anxiolytics or conscious sedatives in the treatment of nervous dental patients. A brief selection of these drugs, and the most common adult dosage range, appears in Table 1. A thorough review of the patient’s medical history, current medication list and a familiarity with these agents will allow for safe and effective use.

## NITROUS OXIDE

Another safe option for relaxing the anxious patient is to use nitrous oxide. Make sure that the patient has not eaten for six hours prior to the appointment time, to prevent regurgitation and life-threatening aspiration into the lungs.

Table 1. Commonly used oral anxiolytic/sedatives

Agent	Common adult dose	Delivery form
Chloral Hydrate / Noctec®	1-2 g	liquid, capsule
Hydroxyzine /Atarax® or Vistaril®	10-50 mg	tablet or syrup
Diazepam / Valium®	10-20 mg	tablet, solution
Triazolam / Halcion®	0.5-1.5 mg	tablet
Lorazepam /Ativan®	2-3 mg	tablet, solution
Midazolam /Versed®	5-15 mg with monitoring	syrup



## CONSCIOUS SEDATIVES IN CONJUNCTION WITH NITROUS OXIDE

A conscious sedative in conjunction with nitrous oxide works most of the time. If that combination fails to allow completion of the dental procedure, then other options need to be considered. You can supplement the drugs already ingested with more conscious sedatives during that same session. If that is not an option or if that alternative fails, the next step is to reschedule the patient and escalate the prescribed conscious sedative to a higher dose or stronger sedative, plus employ nitrous oxide.

Note that the continuum of sedation, from light to moderate to deep, is not dependent on dosage as much as on the patient's response. You may think you're delivering a small dose, but a hyper-responder may manifest signs or symptoms of a deeper level of sedation. I strongly encourage dentists to consider obtaining the additional training and certification mentioned in the "Moderate Sedation" section below.

In our practice, this protocol for sedation has been successful in 97% of our 30,000 documented cases over the past 30 years. Patients are relaxed enough to be wrapped, propped, radiographed, and treated to completion.

## WRAPS

To prevent patients' self-injurious behavior such as bringing hands to their mouth while we have sharp instruments or drills in the area, we mindfully restrain their hands using Rainbow Wraps [Fig. 1].

Applying the wrap requires three easy steps. We place the wrap onto the operator chair before the patient is seated [Fig. 2]. We then seat the patient and gently secure the wrists with Velcro [Fig. 3]. Often, we also wrap the legs with stronger Velcro [Fig. 4] to prevent sudden kicking.

After the patient is snugly wrapped, the head is immobilized. Commercial head restraints are available, but we prefer to have the head be gently held by caregivers or staff. Thus, jerky head movement is restricted in all six possible directions.



Fig. 2: Applying the wrap in three easy steps



Fig. 3: Applying the wrap in three easy steps



Fig. 4: Applying the wrap in three easy steps

## MOUTH PROPS

To open the mouth, we start with a small and simple Open Wide™ foam mouth rest, which we insert horizontally then rotate vertically. After that, we often switch to a Molt ratchet-type mouth prop [Fig. 5].



Fig. 5: Molt ratchet prop (R) is inserted for wider opening after Open Wide mouth rest™ (L)

What if the patient will not open? There's always a way. Actually we have two techniques to convince the patient to open the mouth, with a 99% success rate.

The first is to pinch the nose while hovering around the lips with the Open Wide™ mouth rest. As soon as the patient opens the lips to take a breath, we slide in the Open Wide™ mouth rest horizontally, then rotate vertically.

The second technique to get the patient to open the mouth is to use your finger or knuckle to push 45 degrees down against the chin, to activate acupuncture point Conception 24. The patient opens the mandible to avoid the momentary discomfort, just long enough for you to insert the Open Wide™ mouth rest.

Once the Open Wide™ mouth prop is in the vertical position, you can easily insert a larger ratchet prop as described above.

Note that once the ratchet mouth prop is in place, someone MUST keep one finger on the hinge at all times to prevent the patient's tongue from dislodging it from the mouth.



Fig. 6: Isolite™ retractor props and illuminates the mouth

Do all of your dental work on the side of the mouth opposite the ratchet. Once that side is completed, do NOT remove the ratchet prop. Instead, close the gears of the ratchet, and rotate it 180 degrees within the mouth until it reaches the other side. Then, reopen the gears to the same maximum you used on the initial side. Place a finger on the hinge, and do your dentistry on the second side. If you forget to keep the prop in the mouth when you switch sides, you will have to lure or convince the patient to open all over again.

A new prop that we have been using more recently with impressive results is the Isolite™. Isodry™, its basic unit, serves as an effective mouth prop, tongue retractor, cheek retractor, and saliva ejector. The newer units also have a built-in light source that totally illuminates the areas of the mouth [Fig. 6].

The Isolite™ is so effective that the dental assistant does not need to retract, suction, or adjust the lights. It's like having an extra dental assistant for the cost of a disposable plastic cheek retractor and saliva ejector.

## ACCESSIBILITY

An office needs to be able to accommodate large wheelchairs and gurneys. The U.S. Department of Justice specifies the requirements

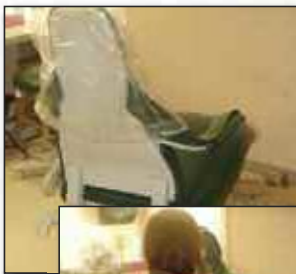


Fig. 7 & 8: DentalEZ Airglide™ chair can be pushed aside to allow patient to remain in own wheelchair



Fig. 9: Our favorite headrest is a caregiver's chest

that your dental office should follow, including a low height check-out counter, per the Americans with Disabilities Act of 1990.

In addition to the wraps and props, there are some tools and equipment that we find indispensable to our success in treating anxious and special-needs patients.

One is the DentalEZ Airglide™ operatory chair [Fig. 7 and 8]. A simple switch on the chair itself turns the heavy immovable operatory chair into a hovercraft. Its half-inch cushion of forced air allows us to move the chair with literally one finger to anywhere in the operatory, or even out of the operatory altogether. This maneuverability enables patients to remain in the comfort of their familiar or motorized wheelchairs, or even their gurneys.

Headrests make our work easier. When wheelchairs don't have a headrest we clip one on. Our very favorite headrest, however, is the chest of a family member, caregiver, or dental assistant, as shown in Figure 9.

## RADIOGRAPHS

For radiographs we love the 8½-lb Nomad™ or the 5½-lb Nomad Pro™, portable, hand-held, cordless x-ray units that resemble a speed-detecting radar gun [Figure 10].

We bring the Nomads™ into our office waiting room, into vans in the parking lot, into nursing and private homes, and into the hospital and other institutions. Its built-in collimator shield eliminates the need for the operator to wear a lead apron.

When your window of opportunity to work with a patient is small, any gain in speed is welcome. The DEXIS™ x-ray system enables us to expose, digitally process and immediately view images. Thus, a retake or additional images can be done within seconds of discovery or diagnosis. Coupling the Nomad™ with the DEXIS™ systems, the operator is still in the room while exposing, viewing and retaking radiographs until satisfactory images are obtained.



Fig. 10: Nomad Pro hand-held x-ray unit with DEXIS™ sensor

What if you don't have an assistant, a functioning computer, or electric power? The side road in

this case is Ergonom-X™ self-developing film in conjunction with a Nomad™ hand-held x-ray unit [Fig. 11 and 12]. For about one dollar, you have a complete film and darkroom enclosed within a packet the size of a pair of size 2 dental films. The developer and fixer are inside the tiny packet. The x-ray is exposed as always, and has no tin foil to create a herringbone pattern from reverse placement.



Fig. 11: Ergonom-X™ self-developing film

After standard film exposure, the packet is withdrawn from the mouth, squeezed until the self-contained fluid comes in contact with the exposed film, then manually massaged for 60-90 seconds. The x-ray film is then removed from the packet, and rinsed with water. Within two minutes of exposure, you have an excellent quality processed film. It is not digital, but the film can be scanned and archived.



Fig. 12: Nomad™ and Ergonom-X™ self-developing film being used together

**Part 2 of this article, which will appear next issue, will discuss parenteral sedation and the care of patients in the operating room setting.**

**For copies or comments, please contact Dr. Harvey Levy at DrHLevy@gmail.com or visit DrHLevyAssoc.com**

**I wish to thank Dr. Richard Wynn for his suggestions on the pharmacology section, and Lena R. Rotenberg for editing and proofreading this article.**

### References:

1. Physicians' Desk Reference 2011, and PDR.net, for information on specific drugs.
2. Lexi Comp Dental Reference Library, 16th edition, for information on specific drugs.

### About the Author

Dr. Harvey Levy is a general dentist from Frederick, Maryland who has earned Mastership and two Life Long Service Recognitions in the AGD, eight fellowships and four diplomate certifications. He has published numerous articles and offered seminars and participation workshops all over the country. His work with anxious and special-needs patients earned him the 1986 AGD Humanitarian Award, the ADA Access to Care Award and the honor of being a 2002 Winter Olympic Torch runner.

**The Nominating Committee of the NJAGD Board of Directors has advanced the following slate of candidates for election for the upcoming year. If uncontested, this slate of candidates will take office on May 20, 2011.**

**Mark D. Robinson, DMD, FAGD: NJAGD President**

**Evan Spivack, DDS, FAGD: President-Elect**

**Thomas J. Boyle, DMD, MAGD, ABGD:  
Vice President**

**Tomas Ballesteros, DMD: Treasurer**



# Management of Anxious and Special Needs Patients:

## THERE'S ALWAYS A WAY

### PART 2

by Harvey Levy, DMD, MAGD, LLSR

#### YOU FAILED IN THE OFFICE. NO PROBLEM.

In Part One of this series, we identified the characteristics of anxious and special-needs patients who require additional physical means, drug protocol, or clever techniques to enable us to successfully complete their dental treatment in an office setting. We covered wraps and props, office sedation with nitrous oxide and enteral sedation drugs, radiological equipment and imaging methods, accessibility with movable air-glide operatory chairs, and other tips and tricks to get the job done.

With the correct application of proper techniques, tools and equipment, our experiences have shown success in caring for persons with special needs about 97% of the time. The few failures that occur will happen primarily with the hypo- and non-responders who are drug-resistant, the autistic, or the strong and combative. What is the alternative road for this remaining three percent?

There are two practical options. The first is to relax the patient more deeply in the office. The second is to perform the needed treatment in the operating room of a hospital or surgical center. The second option may be easier, and is certainly more successful.

#### MODERATE SEDATION

Relaxing the patient more deeply requires at least moderate sedation. Most states in the U.S. already or soon will mandate that dentists must hold a Class I permit to apply enteral moderate sedation (oral or rectal only). To obtain this permit, dentists will generally need:

1. A three-day course that includes discussion of twenty different patient scenarios and doses;
2. Advanced Cardiac Life Support (ACLS) certificate;
3. A site visit including an equipment and supplies evaluation, plus an oral practical knowledge quiz;
4. An application and fee.

Courses are readily available from various dental organizations (AGD, ADA, state dental associations), dental schools, and private, specialized dental training groups (DOCS, American Dental Society of Anesthesiology).

Alternatively, a dentist may consider using either intravenous or intramuscular sedation to totally sedate the patient in the office. However, those deeper sedation protocols now require a Class II sedation permit, which demand more training and preparedness. Some (very few) dentists even perform general anesthesia in the office, which requires a Class III permit, including an anesthesia residency, mini-residency, or other extensive training and certification with testing.



Fig. 1: Dentistry with an anesthesiologist or anesthetist.

There are considerable risks and burdens involved in the provision of office IV or IM sedation. I do not feel comfortable managing both the dental and medical aspects of the case, and applaud those dentists who safely do so. If moderate sedation fails to relax a special needs or anxious patient, I take the ultimate side road, and bring the patient to a hospital or surgical center, where an anesthesiologist or anesthetist can render the patient unconscious. I prefer to focus on what I do best (general dentistry) while leaving the patient's vital signs, overall health, and anesthetic management to someone else (figure 1). Alternatively, some dentists elicit the aid of an anesthesiologist or anesthetist who will come into the dental office to provide anesthesia services for patients undergoing care.

#### THE OPERATING ROOM: A PATH THAT ALWAYS WORKS

There are times when I fail in the office with special-needs or anxious patients. In the OR, however, that very difficult patient becomes the ideal patient: he or she is asleep and cannot spit on me, bite me, kick my assistant, hit my staff, or resist treatment in any way. A sleeping patient also doesn't pick up the cell phone or take a bathroom break, thus allowing me to perform my best work without distractions or interruptions.

While under general anesthesia, the patient's behavior is removed from the equation. You can essentially guarantee that you will succeed in completing the case. Success depends only on your clinical dental skills.

Caring for a patient with a dried mouth, an anesthesia tube in their nostril and a throat pack in the oropharynx is no different from working on a Dentiform or on a mannequin. You are in total control of the clinical situation, and can do your finest dentistry (figure 2).

Patients who are too combative or uncooperative to allow radiographs can have excellent quality images taken while they are asleep. For years, we have used the Ergonom-X self-developing films which require no darkroom, no equipment, no electricity, and very little time. Once exposed by the dental assistant or hygienist, the OR nurse or technician can process the films, and place them on an X-ray hanger in 60-90 seconds (figures 3 and 4).

More recently we have incorporated the DEXIS imaging system, which allows us to take excellent quality digital images that are



Fig. 2a: A dentist's ideal clinical setting - a dry mouth.



Fig. 2b: Six crowns in the OR.



Fig. 3: Self-developing film in patient's mouth.



Fig. 4: Self-developing film on hanger.

and operates cordlessly without the need to worry about electrical outlets.

The light weight and two batteries of the Aribex NOMAD and NOMAD-Pro allow us to use these versatile units anywhere in the hospital, including bedside in the emergency room and in patients' rooms.

Another notable advantage of treating patients in the OR is that all scaling and root planing is done by the hygienist in one very short session, with no need for local anesthesia. With the patient asleep, hygienists typically complete all of their work on the most difficult mouths in under an hour (figure 6).

Root canal therapy is also completed more quickly in the operating room



Fig. 6: Hygienist scaling teeth in OR.



Fig. 7: Root canal on intubated patient.

reviewed on the laptop in less than a second, with retakes just as fast (figure 5).

The instant digital images taken in the OR can readily be filed, re-organized, archived, shared, e-mailed, or printed, and can even be instantaneously backed up in the office via a VPN (virtual private connection). We continue to use the Ergonom-X self-developing films as a perfect back-up, especially for diagnoses, surgical root tip fractures and for root canal intra-operative and post-operative images.

Although our OR has an old reliable X-ray unit on wheels, it is bulky and hard to bring close to the OR table. We prefer Aribex's NOMAD-Pro, which weighs 5 ½ pounds, can be hand-held or tripod mounted,



Fig. 5a: DEXIS sensor in the patient's mouth

Fig. 5b: DEXIS sensor connected to laptop in OR.



Fig. 5c: DEXIS sensor with Aribex hand-held NOMAD X-ray

setting than in the dental office. With the use of a gauze throat pack to protect the airway and prevent the aspiration or water or debris, no rubber dam is needed (figure 7).

Extractions, periodontal surgery, finer oral surgery and other surgical procedures, when accomplished in the OR, may be performed more quickly and effectively without the patient wiggling, thrashing, or squirming (figures 8 and 9)

We do our finest esthetic and other restorative work when there is no blood or saliva interference. Treatment of patients under general anesthesia allows for the maintenance of a dry field. As such, there

is no need to redo composites or sealants due to water, saliva or moisture contamination. Placing composites or sealants is not considered underwater dentistry if there is no saliva nearby! (figure 10). Here, also, the total absence of any head or body movements allows us to do our finest quality work.

Thus, as general dentists, we are in a unique position. An oral surgeon might not do any restorations or cleaning. A pedodontist might not take out impacted third molars. A periodontist might not do any crowns or root canals. General dentists, on the other hand, can perform all of the above on a special needs or anxious patient under general anesthesia. It's a true win-win: less stressful for the patient, easier and more profitable for us, and more successful all around.

## LESS STRESSFUL FOR THE PATIENT

The American Society of Anesthesiology (ASA) physical status classification system is a categorical system for assessing the fitness of patients prior to surgery. The five-category physical status classification system includes:

1. A normal healthy patient.
2. A patient with discrete or mild systemic disease.
3. A patient with severe, non-incapacitating systemic disease.
4. A patient with severe, life-threatening, incapacitating systemic disease.
5. A moribund patient who is not expected to survive without the operation.

When we treat an ASA type-2 patient in our office, we must be mindful of their systemic disease(s) so that our interventions do not cause a worsening of the patient's health issues. For our ASA type-3 patients, we are likely to trigger a medical emergency in the dental office if we do not take specific precautions regarding the high risk of their particular ailment. ASA type-4 patients are such high risk that they must be closely monitored. They have a life-threatening disease, for which the emotional stress of an office dental procedure, the physical pain of an extraction, or even the injection of a local anesthetic may be enough to trigger a medical crisis. These patients may require more monitoring than our dental office can provide. A hospital or surgical center setting is far better equipped to manage the potential medical emergencies that accompany ASA type-3 and type-4 patients, especially if they have special-needs or are anxious or medically compromised.

For the patient, there are numerous advantages to having treatment performed in the operating room setting: 1) Treatment in the OR may



Fig. 8: Periodontal surgery in the OR.



Fig. 9: Torus removal in the OR.



Fig. 10: Composites in a dry mouth.



be the patient's only option, whether for psychological, behavioral or medical reasons; 2) OR-based care is atraumatic for the patient, who wakes up after the procedure with no memory of being held, restrained, or operated on; 3) Treatment is accomplished four times as quickly in the OR as it would in our office, saving time for the patient and oftentimes their caregiver(s). Procedures in the operating room are done six-handed, without interruptions initiated by the patient (figure 11).



Fig. 11: Six-handed dentistry in the OR.

## EASIER AND MORE PROFITABLE FOR US

To treat patients in a surgical center or hospital OR you do not need a Class II (deep sedation) or Class III (general anesthesia) permit. In fact, you do not even need a Class I (moderate sedation) permit! You already have what you need: a dental license with proof of liability insurance, and a basic CPR card. Other requirements are fairly simple: apply for facility privileges, demonstrate that you know how to wash your hands, and fill out an application. Obtaining OR privileges for your dental assistant or hygienist is similar, and just as easy. Even though the facility provides nurses, it is advantageous to bring your own staff, as they already know your expectations, the dental tools and terminology, making the case flow even faster and smoother.

Being able to treat patients in an operating room will enable your practice to present a wider portfolio of treatment offerings and modalities. It may provide an exciting expansion of your skills, and further your opportunities for personal and professional growth. Your patients will benefit from your services, your practice will grow, and you may very possibly find a renewed energy in your staff, your practice and yourself. The increased income is not bad either.

We have calculated, based upon our last 1,200 documented OR cases, that the hourly net income in the OR is four times that of our office cases (figure 12).



Fig. 12: Average income per OR hour by year.

With all these advantages to the OR one might ask, why even bother to treat anxious or special-needs patients in the office? Two reasons: the OR may be more expensive for the patient, and sometimes the risk of anesthesia is not justifiable in cases of minor procedures. However, as a tertiary road after all other alternatives have been exhausted, the OR is a foolproof solution for completing the treatment plan.

## CONCLUSION

In this two-article series, we have shown that there is always a way to successfully treat any patient, if not in a dental office, then in a hospital or surgical center's operating room. To determine the best path for each patient—whether to go directly to the OR, or to try different roads when you identify obstructions on your current path—requires knowledge, skill, and resourceful creativity, which you can obtain through continuing education courses and oftentimes from other sources in your own community.

As I like to say, special-needs patient care is more than “why do people climb mountains” and “let's make a dollar.” It's a golden opportunity to use your gift, leave your mark, and make a positive difference. If you have the clinical skills and motivation, there's always a road that will enable you to treat any patient, always.

**Dr. Levy's on-line courses:** [www.DentalEdu.TV](http://www.DentalEdu.TV), or direct link from [www.DrHLevyAssoc.com/clinicians.htm](http://www.DrHLevyAssoc.com/clinicians.htm)

**For copies or comments, please contact Dr. Harvey Levy at [DrHLevy@gmail.com](mailto:DrHLevy@gmail.com) or visit [DrHLevyAssoc.com](http://DrHLevyAssoc.com)**

### Resources for Article Parts 1 and 2

ADSA 877-255-3742 <a href="http://www.adsahome.org">www.adsahome.org</a>	Isolite Systems 800-560-6066 <a href="http://www.isolitesystems.com">www.isolitesystems.com</a>
Aribex NOMAD hand-held X-ray 801-226-5522 <a href="http://www.aribex.com">www.aribex.com</a>	M-DEC 800-321-MDEC <a href="http://www.portabledentistry.com">www.portabledentistry.com</a>
Colgate-Palmolive 800-2Colgate <a href="http://www.ColgateProfessional.com">www.ColgateProfessional.com</a>	Novalar Pharmaceuticals 888-888-1441 <a href="http://www.novalar.com">www.novalar.com</a>
DentaleZ Group 866 DTEINFO <a href="http://www.dentalez.com">www.dentalez.com</a>	Porter Instrument - Nitrous Oxide 888-723-4001 <a href="http://www.porterinstrument.com">www.porterinstrument.com</a>
Dentist's Advantage Ins. 888-778-3981 <a href="http://www.dentists-advantage.com">www.dentists-advantage.com</a>	SheerVision 877-678-4274 <a href="http://www.Sheervision.com">www.Sheervision.com</a>
DEXIS X-ray Systems 888-883-3947 <a href="http://www.dexis.com">www.dexis.com</a>	Special Care Dentistry Association 312-527-6764 <a href="http://scdaonline.org">http://scdaonline.org</a>
DNTL 800-847-0694 <a href="mailto:info@DNTLworks.com">info@DNTLworks.com</a>	Specialized Care Co. 800-722-7375 <a href="http://www.specializedcare.com">www.specializedcare.com</a>
DOCS Education 877-325-3627 <a href="http://www.DOCSEducation.org">www.DOCSEducation.org</a>	Triodent, Inc 800-811-3949 <a href="http://www.triodent.com">www.triodent.com</a>
Ergonom-X Self-developing film Cramer Dental Sales 800-723-4895 <a href="http://www.cramerdental.com">www.cramerdental.com</a>	Walter Lorentz Surgical / Biomet 574-267-6639 <a href="http://www.biomet.com">www.biomet.com</a>

### About the Author

*Dr. Harvey Levy is a general dentist from Frederick, Maryland who has earned Mastership and two Life Long Service Recognitions in the AGD, eight fellowships and four diplomate certifications. He has published numerous articles and offered seminars and participation workshops all over the country. His work with anxious and special-needs patients earned him the 1986 AGD Humanitarian Award, the ADA Access to Care Award and the honor of being a 2002 Winter Olympic Torch runner.*