Current guidelines for the use of nitrous oxide inhalation analgesia/anxiolysis in pediatric dentistry

By Dr. Manal Al Halabi, UAE

Abstract
Nitrous oxide/oxygen inhalation analgesia and anxiolysis as a behavioral management intervention in children has maintained an excellent safety record and is, therefore, utilized widely by pediatric dentists. As is true of any diagnostic or therapeutic dental intervention, however, its use merits periodic review, especially when it is routinely applied. When nitrous oxide/oxygen is used in combination with other sedatives, such polypharmacy can produce potentially serious side effects. Bioenvironmental risks to patients and staff can be encountered if proper use of the gas and appropriate dispensation of exhaled nitrous oxide is not monitored. Using historical publications, current empirical articles, professional usage policies, and educational textbooks, the purpose of this article was to review indications and contraindications of nitrous oxide/oxygen inhalation analgesia and anxiolysis and discuss various factors that should or should not be considered about its use.

Introduction
After the analgesic qualities of nitrous oxide were discovered in the 19th century, dental practitioners experimented with nitrous oxide anesthesia for dental procedures for almost a century, frequently pushing beyond physiological limits. This, in turn, shifted to that of an analgesic and subsequently to an inhalation sedative. The advantages of reduced dosages needed to elicit sedation rendered the drug much safer and enabled dentists to administer nitrous oxide with greater ease and safety. Consequentially, by the dawn of the 21st century, NO had become a routine component of dental care among many dentists.

Nitrous oxide/oxygen inhalation is considered a safe and effective technique to reduce anxiety, produce analgesia, and enhance communication between a patient and health care provider. The essential need to properly diagnose and treat, as well as the safety of the patient and practitioner, should be carefully considered before using nitrous oxide.

Nitrous oxide has long been used as an inhalation anesthetic for both the induction and maintenance of general anesthesia. More recently, nitrous oxide analgesic protocols have been established for pediatric patients undergoing diagnostic procedures such as computer tomography, endoscopy, electromyography, and bone marrow biopsies.

All children should be able to expect painless, high quality dental care. While anxiety and pain can be modified by behavior management psychological techniques, additional pharmacological approaches may be necessary. Anxiolysis/analgae is defined as elimination of pain and anxiety in a conscious patient. The patient responds normally to verbal commands. All vital signs are stable; there is no significant risk of losing protective reflexes, and the patient is able to return to pre-procedure mobility. In children, analgesia/anxiolysis may be helpful to expedite the delivery of procedures that are not particularly uncomfortable, but require that the patient not move. By reducing or relieving anxiety, the patient may be able to tolerate unpleasant procedures, discomfort, or pain.

The outcome of any pharmacological approach especially for mild ones is variable and dependent upon patient's response to different drugs. The clinical effect of nitrous oxide/oxygen inhalation, however, is relatively more predictable among the majority of the population.

Mechanism of action
Nitrous oxide is a colorless and nearly odorless gas with an distinct, sweet smell. It is an effective analgesic/anaesthetic agent producing central nervous system (CNS) depression and euphoria with slight effect on the respiratory system.

Nitrous oxide has multiple mechanisms of action. The analgesic effect of nitrous oxide appears to be initiated by endogenous opioid peptides released from neurons which results in activation of opioid receptors and descending Gamma-aminobutyric acid (GABA) receptors and modulates nociceptive processing at the spinal level. The analgesic effect involves activation of the GABA receptor both directly and indirectly through the benzodiazepine binding sites.

Nitrous oxide demonstrates rapid uptake, it is absorbed quickly from the alveoli and held in a simple solution in the serum. It is relatively insoluble, passing down a gradient into other tissues and cells in the body, such as the CNS. It is excreted quickly from the lungs. As nitrous oxide is 34 times more soluble than nitrogen in blood, diffusion hypoxia may occur.

Studies have shown that children desaturate more rapidly than adolescents, and administering 100 percent oxygen to the patient once the nitrous oxide has been terminated is important.

Nitrous oxide causes slight depression in cardiac output though peripheral resistance is marginally increased, thereby sustaining the blood pressure.

This is of particular advantage while handling patients with cerebrovascular system disorders.

Nitrous oxide is absorbed quickly, allowing for both rapid onset and recovery (two to three minutes). It causes negligible impairment of any reflexes, thus protecting the cough reflex. It exhibits a superior safety profile with no recorded fatalities or cases of serious morbidity when used within recommended concentrations.

Children suffering from claustrophobia can find the nasal hood restrictive and disagreeable. Nitrous oxide/oxygen inhalation may include:

1. Reduce or eliminate anxiety.
2. Reduce untoward movement and reaction to dental treatment.
3. Enhance communication and patient cooperation.
4. Raise the pain response threshold.
5. Increase acceptance for longer appointments.
6. Aid in treatment of the mentally/physically disabled or medically compromised patient.
7. Reduce gagging.
8. Potentiate the effect of sedatives.

Disadvantages of nitrous oxide:

1. Weak potency.
2. Significant dependence on psychological reassurance.
3. Interference of the nasal hood with injection to anterior maxillary region.
4. Patient must be able to breathe through the nose.

Nitrous oxide pollution and potential occupational exposure health hazards.

Indications for the use of nitrous oxide:oxygen inhalation analgesia:

1. A fearful, anxious, or disruptive patient.
2. Certain patients with special health care needs.
3. A patient whose gag reflex interferes with dental care.
4. A patient for whom profound local anesthesia cannot be obtained.

The objectives of the Use of nitrous oxide/oxygen inhalation analgesia:

1. Reduce anxiety.
2. Reduce other movement and reaction to dental treatment.
3. Enhance communication and patient cooperation.
4. Raise the pain response threshold.
5. Increase acceptance for longer appointments.
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Nitrous oxide/oxygen inhalation should be offered to children with mild to moderate anxiety to enable them to accept dental treatment better and to facilitate coping across sequential visits.

The administration of nitrous oxide/oxygen analgesia/anxiolysis must always utilize alternate behavioral guidance modalities, the patient’s dental requirements, the effect on the quality of dental care, the patient’s emotional development, and the patient’s physical considerations. Nitrous oxide generally is acceptable to children and can be titrated easily. Most children are enthusiastic about the administration of nitrous oxide/oxygen; many children report dreaming, floating or being on a “space-ride.” For some patients, however, the feeling of “losing control” may be troubling and patients suffering from claustrophobia can find the nasal hood restraining and disagreeable.

Fitness for nitrous oxide/oxygen inhalation analgesia:

Review of the patient’s medical history should be performed prior to the decision to use nitrous oxide/oxygen analgesia/anxiolysis. This assessment should include:

1. Allergies and other allergic or adverse drug reactions.
2. Current medications including those to be taken home, and site of administration.
3. Diseases, disorders, or physical abnormalities and pregnancy status.
4. Previous hospitalization to include the date and purpose.
5. Recent illnesses (e.g. cold or congestion) that may compromize the airway.

Children who are ASA I or II (Table I) can be deemed fit to undergo nitrous oxide/oxygen inhalation sedation in general, community or specialty (pediatric) practice. Those who are not in these categories requiring conscious sedation should be treated in a hospital environment with due consideration to their individual needs and medical condition, involving the assistance of colleagues where appropriate.

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3. Enhance communication and patient cooperation.
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Factors Influencing the Use of Nitrous Oxide/oxygen Inhalation Analgesia:

1. Risk of aspiration.
2. Potential for respiratory depression.
3. Cardiac and respiratory complications.
4. Opioid receptors and descending peptides release from neurons.
5. Increased risk of losing protective reflexes; therefore, anxiolysis must always utilize alternate behavioral guidance modalities.

The objectives of the Use of nitrous oxide/oxygen inhalation sedation:

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2. Reduce other movement and reaction to dental treatment.
3. Enhance communication and patient cooperation.
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6. Aid in treatment of the mentally/physically disabled or medically compromised patient.
7. Reduce gagging.
8. Potentiate the effect of sedatives.
10 Years of Successful “Continuing Dental Education” by CAPPmea

By Dental Tribune MEA/CAPPmea

Dental Tribune MEA/CAPPmea

URAB, UAE: May 2015 will mark a significant milestone in the history of the Centre for Advanced Professional Practices (CAPPmea) in Dubai, which has come to celebrate its 10th anniversary. This event is a landmark not only for CAPPmea but also for the entire Dental Society in the Middle East, who have participated in CAPPmea’s Continuing Dental Education programmes.

The dentists are those who are at the forefront, driving the industry in the right direction through valuable feedback, experience and increasing demand for high level technology and education.

Thanks to the hard work of our colleagues, sponsors, partners and supporters for the last 10 years, CAPPmea has built a frontrunner standard committed to the highest echelons of continuing dental education. A big “Thank You” is owed to all participants, followers and partners, having helped CAPPmea develop the professional training tools adjusted to the specific needs of the region.

CAPPmea has been an American Dental Association (ADA) CERP Recognized Provider for the last 5 years, specializing in CME and CPD dental programmes - conferences, hands-on courses, workshops and self-instruction events. During the past 10 years, CAPPmea facilitated over 550 CME programmes with over 32,000 international participants taking part. With the opening of CAPPmea Asia in 2012, the professional reach of CAPPmea expanded to the Asia-Pacific region and beyond. In 2012 CAPPmea also joined a global family of 96 publishers by becoming the proud licensee owner of the Dental Tribune Middle East & Africa edition. Over the last 5 years, CAPPmea has delivered yearly six print and digital newspaper publications to over 45,000 dental professionals in the MEA region, 24 newsletters to more than 45,000 active online subscribers, and through an international website the latest industry news and scientific articles are reaching the largest dental community worldwide – an audience of over 900,000 dental readers.

A Decade of Education – Passion for Quality and Perfection

“It is unimaginable how fast time has passed. It is already 10 years that I started CAPPmea as a center for professional training, quickly growing into the creation of two very important international conferences, namely CAD/CAM & Digital Dentistry and Dental-Facial Cosmetic International Conferences. Today, even if I would want, it is not possible to stop these events. There is a huge demand for the education and showcasing of the fast developing dental industries,” – Dr. Dobrina Molova, Managing Director CAPPmea, emotionally commenting on the achievements.

The 10th CAD/CAM & Digital Dentistry International Conference will be celebrated jointly with CAPPmea’s 10-year anniversary. The journey in the last decade came along with many challenges related to the incredible pace of growth of industry and new technologies, particularly in digital dentistry. Ten years ago, one could not imagine that such opportunities existed. They are now able to change dentistry and improve dramatically the patient care. All from diagnostics, planning to the treatment in terms of precision, time-consuming and aesthetic treatments.

What has been accomplished in the past 10 years is truly significant. CAPPmea would like to express its highest appreciation of the role of our business partners, industry, sponsors and supporters in helping CAPPmea to make the success story that it is today. Thanks to all who have worked with CAPPmea, sharing the challenges and the passion that come along.

Thanks to all dentists, dental technicians, dental hygienists and assistants, who followed us in this decade of fast development of dental industry and technology. We look forward to another decade of being together.

For more information please visit www.cappmea.com

CAD/CAM & Digital Dentistry significant growth in Middle East in last decade

By Dental Tribune MEA/CAPPmea

Dental Tribune MEA/CAPPmea: Where are CAD/CAM & Digital Dentistry 10 years ago?

Many dentists were dealing with this topic as “Not for every dental field”. But with such a specialized event like CAD/CAM & Digital Dentistry Int’l Conference in Dubai, the awareness of this highly important field of Dentistry became more and more known and developed.

Dr. Munir Silwadi, Canada: 10 years ago CAD/CAM dentistry was more or less in its infancy stage. Though chairside systems, such as the CEREC chairside system from Sirona, were well in a reasonably advanced stage, most of the dental laboratories oriented systems were just learning to crawl. Very few dental manufacturers ventured into this technology. A side from some high precision milling units, such as the Everest Milling Unit from KaVo, both hardware as well as software did not enjoy the required features to warrant predictable and precise restorations.

Dr. Mark Morin, USA: CAD/CAM was available but only provided a limited scope. The number of users was very small. There was only one company that made the machine. It could only do limited types of restorations and there were limited materials available to make the restorations.

Lutz Ketelaar, Germany: Digital dentistry was driven by closed systems, the lack of sharing of capacities not implemented, not even at most in people’s mind. The major driver for CAD/CAM were full ceramic restorations, ZrO2 an upcoming material with a lot of hope and trust - not always fulfilling all expectations technicians did - this was mainly driven through a lack of understanding on the lab side though. I remember the Procera days, where a scanner which just could create single restorations was enough to win fans all around the world with a central manufacturing solution using AI05, on the other hand a DC5 in-house system which was on exhibitions, growing restorations out of hip-material. The switch came with the ZrO2 green stage material, as it allowed to mill economically ceramic materials.

Even though there was no movement for open systems, the industry made the implementation of CAD/CAM possible, due to support and training of dental technicians. Information Technology was never part of the dental world and the majority of dental technicians did not even believe that soft and hardware would change their...
whole working environment. Even just a couple of years ago, lab owners told me that they are still waiting for the right system to go for, unless there was the perfect system. I believe there is still no perfect digital solution, but we are getting closer. We have to admit however that hand craft was neither perfect - but we adapted perfectly to the conditions.

Rik Jacobs, The Netherlands: 10 years ago, in the medical industry in terms of CAD/CAM was in an exploring stage, definitely in terms of economics of scale. It was the time that the first dental design software came on the market as far as I can remember it was transferred from the hearing aid market on the one hand and on the other 3D systems like CERE were just launched. However the first serious milling machine came shortly after in 2007.

Dental Tribune MEA: Today, what aspects of dentistry have been altered most due to the rapid development of CAD/CAM?

Dr. Julian Caplan, UK: In-surgery restorations, particularly for posterior indirect restorations, have become simplified and far less technique sensitive to finally make this technology a more mainstream option. Dentists can now visualize how they can integrate this technology into their everyday dental practice. The ability to morp CAD/CAM scans into CT scans is simplifying computer-guided surgery. Pre-planning for accurate implant placement utilizing CAD/CAM and CT scans will become the industries standard although the necessary surgical skills will still be a requirement - the computer has not replaced the surgeon – yet.

Prof. Atif Shaker, Egypt: Well, development of CAD/CAM and its speed progress, have touched every dental field. Of course Restorative and Fixed Prosthodontics fields have gained the highest advancement, but Orthodontic, Surgical, Removable Prosthodontics & Radiology branches of dentistry have been included in the CAD/CAM developments. In my opinion, within 5 years from now, CAD/CAM & Digital Dentistry will be covering all specialties of the dental science.

Dr. Manju Silveardi, Canada: Almost every single discipline of dentistry has its share of CAD/CAM technology. Probably the fields of Aesthetic, Restorative and Prosthetic Dentistry got the lion’s share. Indirect Restorations are more precise and predictable when fabricated through CAD/CAM systems. Guided Implant Surgery made the field of Implantology an easier and safer procedure. CAD/CAM driven orthodontics as well is getting more and more utilized.

Dr. Mark Morin, USA: I feel that today the aspects of dentistry that has been altered the most in our profession by CAD/CAM is the implant and the lab world. The lab world is now almost all digital and connected to the office through the internet. Dentists have learned how to work with these labs differently than they did in the past. The implant world has now been simplified with cone beam technology. It has made it easier for the dentist to treatment plan, place, and restore the implants.

Lutz Ketelaar, Germany: I am often surprised how quick the old values of manual dentistry have been replaced by the new solutions and how the markets adapt this opportunity worldwide. For me personally, the direction of monolithic restorations with the opportunity to go model-free and virtual adaptations, without losing esthetics out of the view, is a big change and can be seen on the materials that are being offered - simple ZrO2 has been replaced for translucent variations in 16 shades, classical porcelain has a successor in high strength technical glass materials which natural opalescence and fluorescence.

CAD/CAM is not limited by its opportunities, but of economic aspects - not everything that is possible makes sense. The trust into the investment of new technologies with an open end is limited - The price for machines, materials and dental restorations is very much under pressure, knowledge and service are underestimated and almost ignored behind the pricing policies.

Rik Jacobs, The Netherlands: So many aspects, it is based on imagination what happened only 10 years ago. Certain treatments can be completely planned and executed by CAD CAM, consider Cone Beam CT, the success of CERE at the practice of the Doctors, the transformation from a handcraft into a high tech virtual planned 3D working environment, the start of the Milling centers, the overproduction of the total number of milling centers in certain countries, the total acceptance of Zirconia for Crown & Bridge applications and shortly 3D Printing which will become more and more accepted in the profession.

Dental Tribune MEA: What advantages do CAD/CAM systems offer for the dental practices versus conventional technologies?

Dr. Julian Caplan, UK: In-surgery CAD/CAM systems allow the dentist immediate evaluation of their preparations - specifically clarity of their margins and occlusal clearance. In fact many universities are utilizing this technology for their undergraduate teaching. The wonderful progression of this pre-manufacture assessment using digital scanners is that the preparation can be altered where there where there are deficiencies in the preparation, the altered parts removed from the original scan and only this part need be rescan. This comes into a world of its own where a dentist is involved with multiple preparations which previously would require a completely new impression if one of the preparations did not fulfill the required criteria. CAD/CAM scanning is not only time efficient it also greatly reduces a dentist stress.

Prof. Atif Shaker, Egypt: CAD/CAM systems added many advantages to the dentists as well to the dental patients. Speeding up the dental treatments was a recognition which was not possible without CAD/CAM system. High quality of precision has transferred the dental field to another spectrum of perfection. Technology-based treatments have increased our patients’ expectations, which are now possible, thanks to the versatility of Digital dental products.

Dr. Munir Silveardi, Canada: CAD/CAM generated restorations are more precise and fit better than conventionally produced restorations. They can be manufactured in a faster and better reproducible way. CAD/CAM technology saves time, offers safer treatment methods, and makes practicing dentistry less stressful and more enjoyable.

Dr. Mark Morin, USA: The advantages that CAD/CAM offers to the dental practice over conventional technologies are numerous. The first one is efficiency. The ability to do crowns in one visit helps increase the profitability of the dental office. It allows us to participate in more of these PPO type insurance plans since it helps us control our cost by eliminating the lab expense and a second appointment. Studies have also shown how the use of digital impressions are much more accurate and predictable than the traditional impression technique. It also benefits the patients because it makes the treatment predictable and convenient.

Lutz Ketelaar, Germany: CAD/CAM allows a constant high quality of restorations, not only depending on manual skills in dental education - this is not the end of the classical dental technicians, otherwise we could also expect PC-gamers who play flight simulators to take over your next flight to Europe. Dental knowledge allows to use the instrument of CAD/CAM to become a perfect solution for an efficient workflow in high, mid and low price segment.

Rik Jacobs, The Netherlands: Predictably greater than ever management, relieving the client & saving costs.

Dental Tribune MEA: Given the proven positive results, what are the reasons why some dental practices are remaining on the sidelines when it comes to CAD/CAM technology?

Dr. Julian Caplan, UK: There are many reasons but the main reason is perceived cost of the systems to purchase. However this is only because the practitioner has not understood the savings that they would make in materials and laboratory costs.
SIRONA LLC founded in Dubai to support a direct operation for UAE private market

By Sirona

Dubai, UAE: IDS Cologne was once again a record breaking trade-fair. Sirona presented itself to industry professionals as an experienced specialist in the field of digital technologies for dentists and dental technicians. This was borne out by spectacular innovations in optical, airborne, high power, laser therapy as well as pioneering new developments for CEREC and treatment centers. For the Middle East region, dental professionals will be able to see these latest innovations during the anniversary upcoming 10th CAD/CAM & Digital Dentistry Int Conference in Dubai on 09 May 2015 – Jumeirah Beach Hotel.

As the dental market leader and a technology pioneer, all at Sirona are passionate about enhancing our products and services. We are permanently investing in research and development, as well as our global sales and service structures. Being close to our customers is essential, which is why we have 28 sites around the world where we work together to advance global dental health.

In May 2015, Sirona LLC will be founded in Dubai in order to support a direct business operation towards the private customer market in UAE. The big success of previous years has been recorded through increasing sales and services experienced by Sirona in the region. This is an important step for Sirona in improving the delivery of professional sales, after sales and dental education to the UAE market. Sirona LLC will continue to work alongside MIP in order to fully service the needs of the Government sector which remains equally important.

With UAE being a significant hub for its business and education in GCC, the setting up of Sirona LLC underlines the constant commitment to research, development and better servicing of the end-user with surpassed quality to the dental industry whilst remaining reinforcing the image of Sirona worldwide. This will be achieved through a fully dedicated Sirona sales and technical team and Product specialists who will work closely together to deliver premium services to the private market in the UAE.

As you can imagine we have much more to share, so Sirona encourages you to browse our website and review the highlights of 2014 and novelties of IDS 2015. You will enjoy diving into our world of innovation and reading about some of Sirona’s advancements, both within this issue of Dental Tribune MEA and on our official website as well as through all of our online channels.

Make sure you visit Platinum Sponsor Sirona at the upcoming 10th CAD/CAM & Digital Dentistry International Conference on 08-09 May 2015, Jumeirah Beach Hotel where we will present the latest trends and developments for the first time after IDS Cologne.

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FKG Dentaire launches first anatomic finisher for root canal treatments

By FKG

The latest innovation from FKG Dentaire lets practitioners treat complex root canal systems and clean once impossible-to-reach areas with minimal impact on the dentine. Made with a highly flexible Ni-Ti-based alloy, the XP-endo Finisher follows the contours of the canal with an improved reach of 6mm in diameter—or 100-fold that of a standard instrument of the same size.

“With the XP-endo Finisher, we can finally solve a common problem for dentists,” said Thierry Rouiller, CEO of FKG Dentaire, one of the world’s leading manufacturers of endodontic instruments. “They’ll now be able to reduce the risk of future infection by offering patients a deeper cleaning for a better root canal treatment.”

Studies using micro CT technologies show that standard NiTi files manage to clean just 45 to 55 per cent of the canal walls, leaving debris and bacteria to accumulate in areas left untouched. However complex the morphology of the canal, dentists can use the XP-endo Finisher following a root canal preparation starting at diameter ISO 25. A unique FKG alloy, the MaxWire (Martensite-Austenite electropolish-fleX), gives the instrument unparalleled flexibility so it can remove debris from those hard-to-reach areas, while limiting the impact on the dentine.

“Now (the canal) is cleaner, perhaps two to three times compared to the conventional techniques we have today,” said Dr. Gilberto Debelian, Norway. The instrument also features a strong resistance to instrument fatigue, thanks to its zerotaper design, and is simple enough for dentists to quickly learn to use.

The XP-endo Finisher joins a growing list of innovative high-precision products patented by FKG Dentaire to meet the most demanding needs of general practitioners and endodontists around the world.

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FKG Dentaire launches first anatomic finisher for root canal treatments

Interview with Dr. Martin Trope

By Dental Tribune MEA/CAPPress

Dental Tribune MEA has the pleasure to interview Dr. Martin Trope, past Endo program director at University of Pennsylvania, and chairman of the Endo division at Temple University Dental School and University of North Carolina Dental School. Dr. Trope was also the Director of the American Board of Endodontics.

Dental Tribune MEA: Dr. Martin Trope, you have lectured and provided training in the Middle East several times. What is your experience and feeling of the level of Endodontics in the MEA region?

Dr. Martin Trope: The level of the dentists who have attended my courses is very high. I don’t really know the general level of endodontics in each country. The variability comes in what the dentist can afford in terms of cutting edge technology. In some countries the fees charged for root canal treatment limits what the dentist can afford. This is a universal problem so not limited to the Middle East.

How important is it for a dentist to specialize, particularly in Endodontics and what is the reason you chose to do so?

There are some cases that require additional expertise. I don’t think it is important for a dentist to specialize but to recognize those cases where a specialist is needed. I like to do one thing well so endodontics suits my character although I must admit sometimes it can be very tedious.

How do you stay up to date with the latest technologies

> Page 41

3D efficiency – optimal cleaning while preserving dentine

XP ENDO finisher
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How are we doing? Getting the best from your staff

By Fiona Stuart-Wilson

It we lived in an ideal world where nothing ever went wrong, patients always took up treatment plans and arrived for their appointments on time and staff never went sick we probably wouldn’t need to talk about managing performance. Although, we might want to believe that staff know what they need to do and will get on with it to the best of their ability at all times, we all know this is unlikely to happen.

The success of your practice is in the hands of everyone within it and depends on their delivering a good service. Any weak link in the chain will have a negative effect on your practice and on your ability to deliver a first class service to patients and run a successful dental business. The point of managing performance is to make sure that the performance of your team contributes to the success of your practice, and taking action to improve things when this does not happen.

If you manage performance effectively it will mean that everyone in your practice understands
• what the practice is trying to achieve,
• their role in helping the practice achieve its objectives

The first impression is the final impression, but…?

By Dr. Ehab Heikal

From a fancy looking clinic to a friendly smile, first impressions are no doubt the most vital impression you will ever make in business so it is important to get it right first time.

But no, this does not just mean making sure that your feet aren’t on the desk when seeing a customer or making sure there is a permanent smile imprinted on your face at all times. It is more about the other details.

First impressions are really important in any industry, but in the current economic climate they are more important than ever before. Our patients are continually faced with making difficult decisions but we have to make the right impressions in their minds to make it easier for them to choose us. This is a vital part of any dental practice management program.

Shifting away from an obsession with first impressions is vital as it can be so encompassing, so shift well clear of only treating your patients extremely well on your first ever contact with them. We all know that in the current economic situation it can be very easy to lose some of your most valued customers, so be sure not to count your chickens before even the eggs have hatched.

To prevent any loss of patient reassurance it is important to make sure that your story and message is one you are proud of and that is clear to everyone else with each other. There is no room for discrepancies.

All the expenditure we do to stay in business is dependent upon patients going ahead with our diagnosed treatment recommendations. Our clinical skill is of no consequence if we do not get the opportunity to benefit our patients with it. So, to grow our businesses we need our strategies to comply with patient perceptions.

Once created, first impressions are very difficult to change or eliminate. These mindsets then affect every subsequent decision that patient makes. It will either make your future dealings with the patient easy or difficult; this is why any comprehensive dental practice management strategy should consider this.

It is vital not to take any chances. Everything your patients experience as a result of doing business with you must be exceptional. Everything you and your team, say and do must match up and be the same thing. For example, if your sign and exterior of your practice looks good and you are based in a good location but your team and your services are not up to that limit of quality, then you will always reach below patient expectation.

It is important to note that your patient’s expectations are created primarily by several attributes, from past experience, to word of mouth, to the effectiveness of your marketing campaigns. If you do not at the very least meet those expectations, you will always disappoint your patients. For this reason, it is vital to deliver what you promise in your marketing. If you exceed the expectations your patients walk into your practice with, they will have developed a fan for life!

Incorporating a “WOW” customer service experience whilst your patients are with you often exceeds the good impression formation process. Taking positive steps to developing a good solid reputation is the way to gain customer confidence and this can be built up by using a series of techniques.

Create A First Impression At Your Clinic:

- Make sure you know how you are portraying yourself to your patients. What is the message you are sending to your market.

- If you do not know your message, create one and define it.

The foundation of this usually involves creating a unique selling advantage.

- Then create a good marketing strategy, which will attract the right type of patients to your practice. The kind of patients who are more likely to be interested in your specific type of dentistry or service.

- You need to get your entire team in on the action of what you are trying to do.

- Create systems within the clinic on accomplishing the unique experience for your patients, which complies with your marketing message.

- Customer service is a key element and an excellent provision of your dentistry.

- Educate your patients on their conditions so that they are more involved in the process of co-discovery. This will make it easier for you to give options and advise.

- Make it easier for your patients to be able to afford the dentistry. Consider all options.

- Make sure you have a process in your clinic, which continues to provide a consistent experience for your patients. (Check my book, Quality & Standardization section)

How are we doing? Getting the best from your staff

By Fiona Stuart-Wilson

Give open, honest and direct feedback regularly so that people know what they are doing well just as much as what they are not doing well, and establish a performance review system which allows for two way discussion.

We all want staff who are engaged, take pride in their job and show loyalty towards the practice. If your team can see the bigger picture and how their role contributes to the success of the practice they are more likely to do their best for you. Performance management is about continuously improving the performance of individuals and in so doing improving practice performance.

And that’s just not good for the practice – it’s good for patients too.

Contact Information

Fiona will be presenting a great seminar on the Dental Business Management Conference in Dubai – 12th June, 2015

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Look at the bigger picture

By Eniko Simon

Analyse data to understand the performance of your dental business.

There are many important decisions we have to make when managing a dental clinic. We make these decisions on gut instinct or based on previous experiences or by analysing data that is available for us.

Most of the dental clinics I have been working with had some understanding of the power that data can add to their business. It is essential that you regularly track a wide range of data across your clinic to allow you to have a good understanding of your business. Nowadays, there are fantastic dental software such as Software of Excellence or R4 very well known on the market. These dental software can assist dental businesses to analyse important key performance indicators gain a better understanding of their business.

Some data that you need to look at – who are your patients, how did they hear about your clinic, nationality, age group, your chair occupancy in your clinic, the hourly turnover your associates generating, how many new patients you have monthly and many more KPI’s we can look at.

Undeniably collecting clean and reliable data and analysing it in a consistent way is part of 21st century management. Data is the fundamental ingredient in decision making, figuring out where to focus your resources, create your targeted marketing approach.

Taking control of your data

The data on its own has no meaning, it can not provide the full picture, it does not take into account the values you stand for and the culture you trying to create in your dental business or your patients’ personal feelings they feel about your clinic.

Practice data alone can not be used to guide the success of the clinic. In order to fully utilize the facts and figures they need to be put into context. Hours spent collecting data is wasted if the bigger picture not taken into consideration.

The clinic’s short and long term goals needs to be agreed upon and once you are on your journey the collected data can demonstrate if you are on the right track to achieve your goals.

The numbers provide an effective tool to help manage and control the growth and development of your dental business but do not set the strategy you need to adopt.

Constantly analyse your data – look at how your clinic is performing. The right data at the right time will aid your decision making process regarding your finances, marketing, operations of your clinic – but be ensure that you control your data and put it into context.

Always understand the “whys” to know the way forward to the “hows”.

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The winning combination – CAD/CAM work and 3D CBCT data in one software

By Planmeca

The field of digital dentistry is rapidly evolving, with new dental technologies emerging as part of a more efficient and comprehensive workflow. By pairing Planmeca CAD/CAM solutions with X-ray units in the Planmeca ProMax® 3D family, dental professionals can bring together a wide range of detailed information for treatment planning and diagnostic purposes. This seamless combination of CAD/CAM and 3D CBCT technology has opened new doors in creating a new standard of care for patients – offering high-quality features for different specialties, all available through one software interface.

Planmeca Romexis® is the only dental software platform in the world to combine all imaging and the complete CAD/CAM workflow. This powerful solution is at the heart of the Planmeca ecosystem, as it provides dental professionals with the ability to acquire more detailed data sets than ever before. Planmeca Romexis includes advanced tools for all specialties, such as implant planning and other restorative treatments. The software presents dental clinics with a superior way to increase their patient flow and improve the level of care offered.

Seeing more than ever before

Planmeca PlanMill

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Seeing more than ever before

Planmeca ProMax

Bringing together CBCT data and CAD/CAM work provides a comprehensive level of care. Planmeca ProMax® 3D imaging units reveal intricate information on soft and hard tissue structures, including the mandibular nerve canal, while the Planmeca PlanScan® intraoral scanner captures precise data above the gum line. This combination of data ensures a complete understanding of any case and makes 3D prosthetic designing quick, accurate and easy. Clinics are able to operate more flexibly, as restorations can either be milled at a clinic with the Planmeca PlanMill® 40 milling unit, or easily sent to a dental lab in an open STL data format.

The rise of same-day dentistry

A more active role in the manufacturing of restorations opens up avenues for dental clinics to significantly increase their patient volume and grow their business. A streamlined digital workflow ensures the full utilisation of resources, leading to a more efficient treatment environment. Same-day dentistry is as beneficial for patients as it is for clinics; instead of two visits, patients can be treated in one hour – with no temporary crowns or physical dental models required.

Open architecture for maximised efficiency

Standardised data is the driving force behind many of the latest developments in digital dentistry, as it guarantees the interoperability of images and dental data across different hardware platforms – reducing costs, increasing predictability and enhancing patient safety. Bringing Planmeca’s CBCT and CAD/CAM systems together through the Planmeca Romexis software platform makes effective chairside dentistry a reality and presents dentists with a streamlined opportunity to substantially grow their practice.
Contraindications for the use of nitrous oxide/oxygen inhalation analgesia:

1. Severe obstructive pulmonary disease.
2. Chronic obstructive pulmonary disease.
3. Pre-cooperative children.
4. Severe emotional disturbances or drug-related dependencies.
5. First trimester of pregnancy.
6. Treatment with bleomycin sulphate.
7. Methylenedihydroxyfumarate reductase deficiency.
8. Cobaamin deficiency.

Whenever possible, appropriate medical specialists should be consulted before administering analgesic/anxiolytic agents to patients with significant underlying medical conditions (eg, severe obstructive pulmonary disease, congestive heart failure, sickle cell disease, acute otitis media, recent tympanic membrane graft, and acute severe head injury).

Oxygen administration

Only appropriately licensed and trained pediatric dentists must administer nitrous oxide/oxygen. The practitioner responsible for the treatment of the patient and/or the administration of analgesic/anxiolytic agents must be trained in the use of such agents and techniques and appropriate emergency response.

Selection of an appropriately sized nasal hood is very important. A flow rate of five to six L/ min generally is appropriate for most patients. The flow rate can be adjusted after observation of the reservoir bag. The bag should pulsate gently with each breath and should not be either over- or underinflated. Introduction of 100 percent oxygen for one to two minutes followed by titration of nitrous oxide in 10 percent intervals is recommended. During nitrous oxide/oxygen analgesia/anxiolysis, the concentration of nitrous oxide should not normally exceed 50 percent. Studies have demonstrated that gas concentrations dispensed by the flow meter vary significantly from the end-expired alveolar gas concentrations; it is the later that is responsible for the clinical effects.

Achieving sedation, care should be taken that the scavenging vacuum is not so strong as to prevent adequate ventilation of the lungs with nitrous oxide.

A review of records of patients undergoing nitrous oxide/oxygen inhalation sedation demonstrates that the typical patient will require no more than 50 percent nitrous oxide to achieve ideal sedation.

Nitrous oxide concentration may be increased in equal procedures (eg, restorations) and increased during nitrous oxide/oxygen inhalation, injection of local anesthetic, and topical anesthesia. The use of a dental dam, whenever possible, and appropriate scavenging techniques is essential to minimize the concentration of needed nitrous oxide surrounding the potency of the gas. The practitioner should be able to communicate with the child and explain that a deep breath is required. In addition to the manufacturer's recommendations, the practitioner should provide appropriate instructions to the parent regarding the treatment and the postoperative instructions in writing. The practitioner should provide instructions to the patient and their staff about the appropriate dose. In addition, the patient's record should include information for use of nitrous oxide/oxygen inhalation, nitrous oxide dosage (ie, percent nitrous oxide/oxygen and/or flow rate) duration of anesthesia and the post-treatment oxygenation procedure. The record should also include documentation of the patient's response to the use of nitrous oxide and the postoperative instructions. Only appropriately licensed and trained personnel may use nitrous oxide in children.


Pediatric Dental Association.

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Our target: Our target is to connect doctors with the highest and new technology of dental laboratories field.

Our mission: We make more great art to your patients smile.

Our work:

In ceramak support by zirconium 30%
E-coat work
Implant work
Acrylic work
Chrome cobalt work
orthodontic work
Aesthetic smile work

Contact US:

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References:

The full list of references is available from the publisher.