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CE article
Use and abuse of antibiotics

technique
Cutting endodontic access cavities—for long-term outcomes

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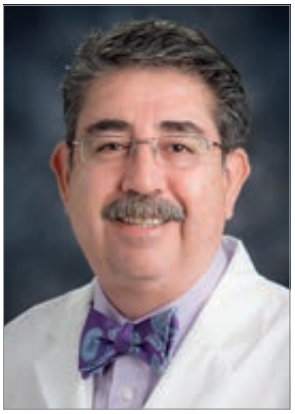
Welcome to the Roots Summit Dubai 2016!



Dr David E. Jaramillo

On behalf of the organising committee, it is my sincere pleasure to welcome you to our Roots Summit Dubai 2016 meeting: "Endodontics these days is better than ever".

We have built a worldwide Endodontic community through the use of social media, specifically in our case, Facebook. Our Facebook Group, ROOTS is a leader in online discussion with well over 22,000 members. This allows us to exchange ideas, clinical cases, treatment options, and discuss our profession with people from multiple continents and countries on a daily basis, 24/7.

Let me share some of the exciting things that we have prepared for you.

Dubai 2016 is our 12th Roots Summit. By moving to Facebook, ROOTS has grown in its ability to support the creative and educational basis of our specialty. This is of paramount importance for our continued success as clinicians.

Steve Jones and Freddy Belliard have been working tirelessly to organise this year's event. My role is programme director for this edition. Together, we have organised a unique event, where we will have 20 of the top opinion leaders in Endodontics. These top-level clinicians will present and share their daily work with the attendees.

We have the opportunity to make the Roots Summit event not only a clinical and scientific event. This is an opportunity to gather together people from all over the world. One of the strengths of ROOTS over the years has been having so many people from diverse locations and backgrounds get to know each other better, exchange ideas, develop and strengthen friendships, and help improve our profession for the benefit of all.

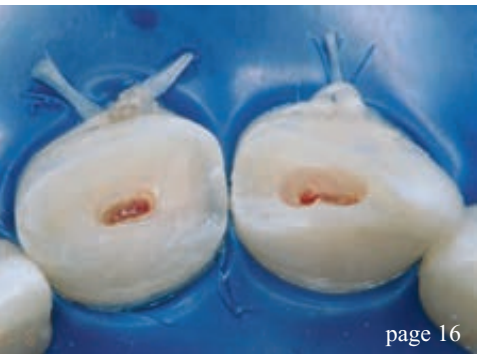
We have organised a series of hands-on courses where the participants will be able to observe and learn from the best in their areas of expertise, and to practice the new techniques with the help of our great lineup of clinicians. We hope that you will take advantage of this great opportunity. Our speakers spend most of their time traveling the world helping to improve the efficiency, and more importantly raise the standard of endodontic practice. Having them all in one place will be one of the best endodontic learning opportunities of the year.

In addition to a very full programme of speakers, we will also have a period on Saturday afternoon for oral presentations. We wanted to provide the time and opportunity to our community members to present others what they are doing in their academic areas or Endodontic offices. We will have also poster presentations for all of those who would like to share their knowledge with us.

You are invited to explore this meeting and discover for yourself the great opportunity to be found here. However, the real keys of the Roots Summit event experience lie within each of you and every single participant. Share your experiences and you will meet active and engaged learners who are breaking new ground and engaging in the world of Endodontics with the purpose as they seal to find powerful and effective ways to improve their knowledge.

Please enjoy yourself, learn and have fun!

Dr David E. Jaramillo
Programme Director
Root Summit, Dubai 2016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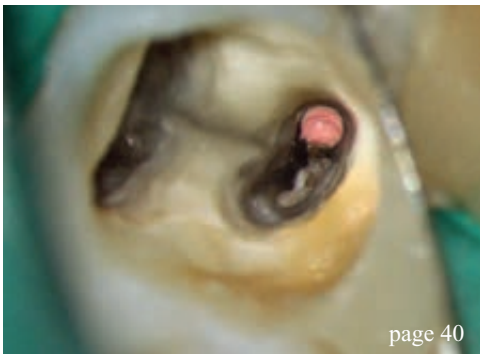
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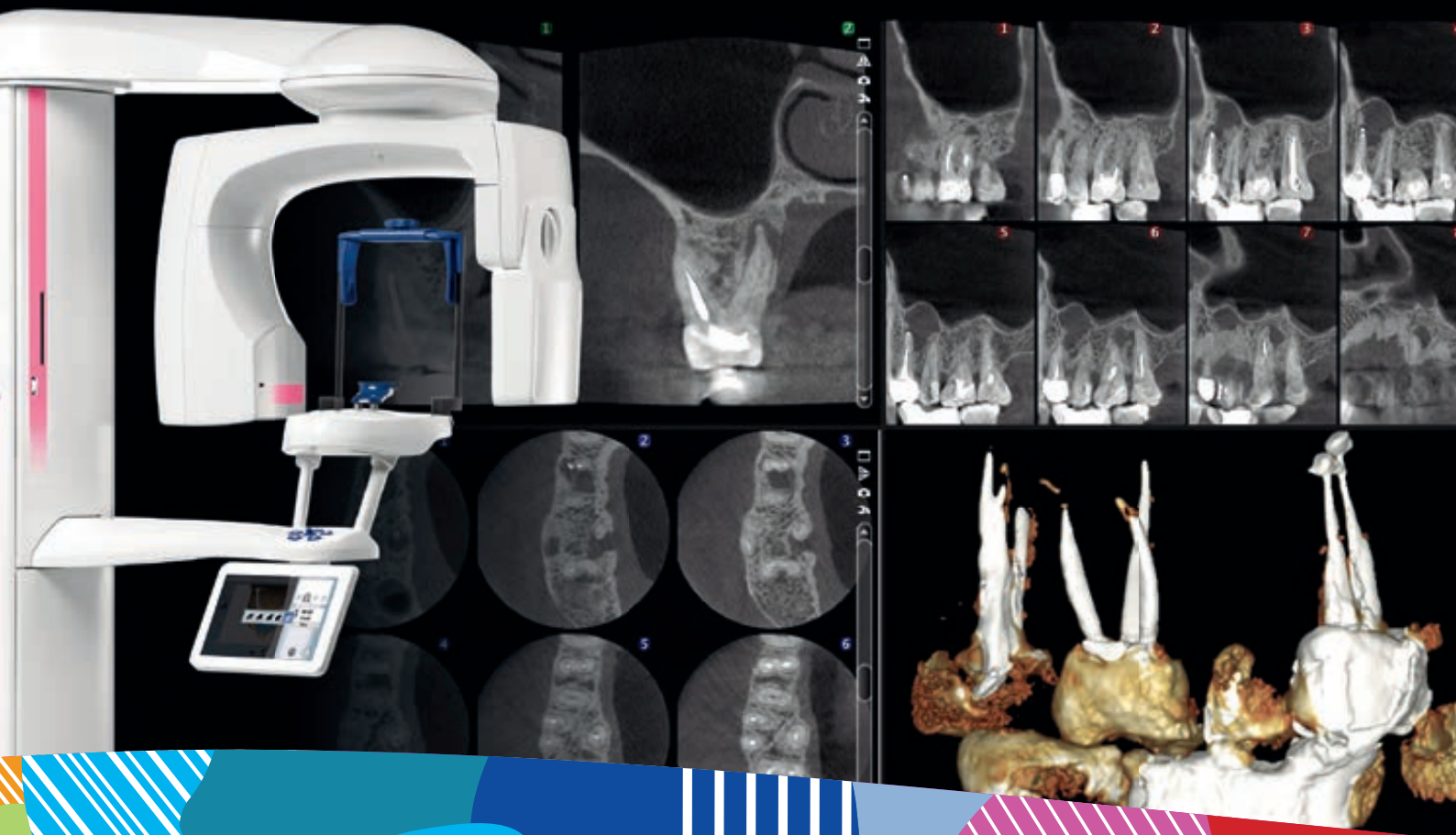

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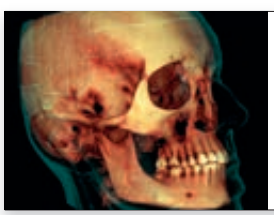

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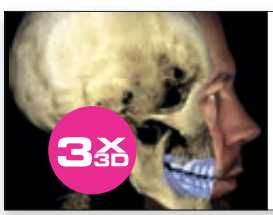

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Manager versus clinician

How to manage expectations of the management role and turn it into success

Author: Lina Craven, UK

Practitioners' expectations of the kind of manager they want for their practice vary considerably in terms of experience and skills. How guilty are you of promoting a nurse or receptionist to a management role without determining the skills gap and providing the necessary training? It is a common scenario in our industry.

Practitioners have a responsibility to their teams and to the financial success of their practices to appoint someone who either has the necessary skills or has the capacity to learn them in the appropriate time frame. How realistic are your expectations and how can you ensure your management role results in success?

Creating and managing realistic expectations

Expectations are difficult to control and impossible to turn off. According to Brazos Consulting, "Expectations are deeper and broader than 'requirements'. Expectation is your vision of a future state or action, usually unstated but which is critical to your success." By learning to identify and influence what you expect, and by ensuring it is clearly communicated, understood and agreed with your manager, you can dramatically improve the quality, impact and effectiveness of your business.

Expectations are created by many different circumstances. It may be something you said or the way that you said it, something you or someone else did, or an expectation of your prospective manager based on his or her previous experience. The vital point here is that expectations, whether right or wrong, rational or otherwise, are not developed in a vacuum. You should consider instances when you were let down by your manager and ask yourself how that expectation was derived. Was it based on an agreement with your manager after a discussion or was it based on something you said or thought in passing? In retrospect, you may wonder how realistic that expectation was and why you thought your manager was in the strongest possible position to fulfil it.

In my experience, the following scenarios are typical of how unrealistic expectations are created:

- The practitioner is busy and needs someone to take charge. He or she chooses the "best of the bunch", hoping he or she will learn on the job.
- The new manager has his or her expectations of the job and these are often unrealistic.
- No detailed job description or objectives are ever provided. No on-the-job or any other type of training is provided; the practitioner simply assumes the manager will learn as he or she goes along.
- The manager is excited about the new position. For some, the empowerment, the title and the kudos mean a great deal; for others, the challenge and the task at hand mean more. When reality hits, so does the realisation that the original motivating factors are no longer as important.
- Both practitioner and manager are reticent to discuss what is not working and often brush the issues under the carpet until it is too late.
- Resentment grows and what is at stake—the patients, the practice and the staff—outweighs the actual issue, which is poorly managed expectations.

Info

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Of course, there are many practices managed by very capable staff members. However, for all the well-functioning practitioner–manager relationships, there are more people in these roles who prefer not to talk about the problems inherent within and who are only too glad for someone else to address the issues.

One of my aims is to facilitate management teams to assess where they are at present, to plan for appropriate change and to implement that change. The outcome is that a weight is lifted from your shoulders and focus moves to a united partnership working towards the success of the practice. In order to move forward, however, you must recognise where you are now.

An alternative approach

The first step towards achieving a successful management partnership is to honestly appraise your current situation. If anything I have said so far has touched a nerve, if frustration exists between you and the manager, or if you simply think things could be better, then acknowledge the fact and take action. Knowing what action to take for the best is probably the most difficult thing to assess.

The following are tips on getting started: Vocalize your vision, agree that your vision is realistic and share it with your team. Create a job description with and a training plan for your manager, as well as identify skills gaps and create smart objectives with and for her or him. Also agree and schedule regular one-to-one meetings and plan to assess and review with your manager. Most importantly, however, keep communicating.

Drive your success

Expectations always exist, even if we do not know what they are and despite them often being unrealistic. Managers have expectations of their roles and their employers have expectations of the person given responsibility for managing the practice. The problem is that mismatched expectations can lead to misunderstanding, frayed nerves and ruffled feathers. More seriously, they often lead to flawed systems, failed projects and a drain on resources.

There is nothing wrong with having expectations; the trick is to communicate them and to agree how they might be satisfied over time and with the right support. Managed expectations drive your success._

about

Lina Craven is founder and Director of Dynamic Perceptions, an orthodontic management consultancy and training firm in Stone in Staffordshire, and has many years of practice-based experience. She can be contacted at info@linacraven.com

Use and abuse of antibiotics

Author: Dr Steven G. Morrow, USA

CE credit

This article qualifies for CE credit. To take the CE quiz, log on to www.dtstudyclub.com. Click on 'CE articles' and search for this edition of roots magazine. If you are not registered with the site, you will be asked to do so before taking the quiz.

Introduction

For the past 80 years, antibiotic therapy has played a major role in the treatment of bacterial infectious diseases. Since the discovery of penicillin in 1928 by Fleming and sulfanilamide in 1934 by Domagk, the entire world has benefited from one of the greatest medical advancements in history. The discovery of safe, systemic antibiotics has been a major factor in the control of infectious diseases and, as such, has increased life expectancy and the quality of life for millions of people.

According to the Centers for Disease Control and Prevention, life expectancy of individuals in the United States born in 1900 was 47 years, while those born in 2005 is projected to be 78 years.[1] At the beginning of the 20th century, the infant (< 1 year) mortality rate in the United States was 100/1,000 live births compared to 6.7/1,000 in 2006.[2] The major reason for these phenomenal achievements has been the ability to control infectious diseases.[3]

Development of antibacterial drug resistance

Along with the dramatic benefits of systemic antibiotics, there has also been an explosion in the number of bacteria that have become resistant to a variety of these drugs. The problem is not the antibiotics themselves. They remain one of medicine's most potent weapons against diseases. Instead, the problem is in the way the drugs are used. The inappropriate overuse of antibiotics has resulted in a crisis situation due to bacterial mutations developing resistant strains.

Many worldwide strains of *Staphylococcus aureus* exhibit resistance to all medically important antibacterial drugs, including vancomycin; and methicillin resistant *S. aureus* has become one of the most frequent nosocomial, or hospital-acquired, pathogens. The rate at which bacteria develop resistance to antibacterial drugs is alarming, demonstrating resistance soon after new drugs have been introduced. This rapid development of resistance has contributed significantly to the morbidity and mortality of infectious diseases, especially nosocomial infections.[4]

A nosocomial infection is a hospital-acquired infection that develops in a patient after admission. It is usually defined as an infection that is identified at least 48 to 72 hours following admission, so infections incubating, but not clinically apparent at admission, are excluded. Nosocomial infections are costly, resulting in increased morbidity, requiring longer periods of hospitalization and limiting access of other patients to hospital resources. The direct costs of hospital-acquired infections in the United States are estimated to be $4.5 billion per year. Nosocomial infections also contribute to the emergence and dissemination of antimicrobial-resistant organisms. Antimicrobial use for treatment or prevention of infections facilitates the emergence of more resistant organisms. Patients with infections caused by antimicrobial-resistant organisms are then a source of infection for hospital staff and other hospitalized patients. These drug-resistant infections may subsequently spread to the community.[5]

The British Society for Antimicrobial Chemotherapy published a review in the Journal of Antimicrobial Chemotherapy. This review examined the contributions antibiotic prescribing by general dentists in the United Kingdom has made to the selection of antibiotic resistance in bacteria of the oral flora.[6] The review concluded that inappropriate antibacterial drug prescribing by dental practitioners is a significant contributing factor in the selection of drug-resistant bacterial strains.

The American Dental Association reported the results of a survey of antibiotic use in dentistry in the November 2000 Journal of the American Dental Association.[7] The authors surveyed all licensed dentists practicing in Canada and found that confusion about prescribing antibiotics and inappropriate prescribing practices were evident, and that inappropriate antibiotic use, such as improper dosing, duration of therapy and prophylaxis are all factors that may affect development of antibiotic resistant microorganisms.

There is a glimmer of hope

A report from Aker University in Oslo, Norway, strongly suggests that bacterial resistance to antibacterial agents can be reversed.[8] While dangerous

and contagious staph infections kill thousands of patients in the most sophisticated hospitals in Europe, North America and Asia, there is virtually no sign of this "killer superbug" in Norway. The reason? Norway stopped using so many antibiotics.

"We don't throw antibiotics at every person with a fever. We tell them to hang on, wait and see, and we give them a Tylenol to feel better," said Dr John Haug, infectious disease specialist at Aker University Hospital.[8] In Norway's simple solution, there is a glimmer of hope.

The proper clinical use of antibacterial drugs

In 1997, the ADA Council on Scientific Affairs issued a position statement on Antibiotic Use in Dentistry.[9] The Council stated: "Microbial resistance to antibiotics is increasing at an alarming rate. The major cause of this public health problem is the use of antibiotics in an inappropriate manner, leading to the selection of dominance of resistant microorganisms and/or the increased transfer of resistance genes from antibiotic-resistant to antibiotic-susceptible microorganisms."[9]

The council's position statement further identified that "Antibiotics are properly employed only for the management of active infectious disease or the prevention of metastatic infection, such as infective endocarditis, in medically high-risk patients."[9]

One method of education is to teach from errors rather than principles. Psychologists from the University of Exeter have identified an "early warning signal" in the brain that helps us avoid repeating previous mistakes. Published in the Journal of Cognitive Neuroscience,[10] their research identifies for the first time, a mechanism in the brain that reacts, in just one-tenth of a second, to things that have resulted in us making errors in the past. Evaluating the following eight misconceptions or "myths" may help to establish general guidelines to aid us in making clinical decisions regarding the use of antibiotic therapy, thereby leading to optimum use and therapeutic success.[11]

Myth No. 1: Antibiotics cure patients

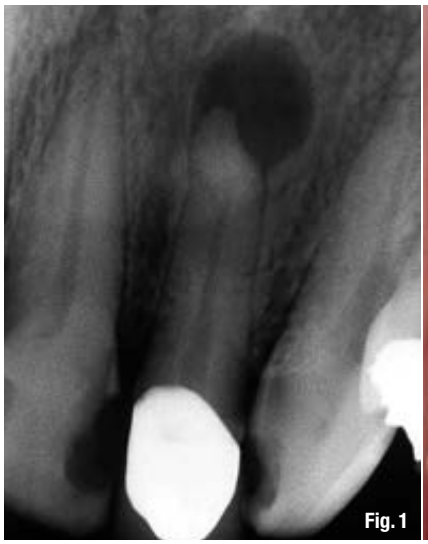
Except in patients with a compromised immune system, antibiotics are not curative, but instead function to assist in the re-establishment of the proper balance between the host's defenses (immune and inflammatory) and the invasive agent(s). Antibiotics do not cure patients; patients cure themselves.

Myth No. 2: Antibiotics are substitutes for surgical intervention

Very seldom are antibiotics an appropriate substitute for removal of the source of the infection (extraction, endodontic treatment, incision and drainage, periodontal scaling and root planning). Occasionally, when the infection is too diffuse or disseminated to identify a nidus for incision, or the clinical situation does not allow for immediate curative treatment, the prudent dentist will choose to place the patient on appropriate antibacterial therapy until such time as curative treatment can be implemented. It is imperative to remove the cause of the infection prior to, or concomitant with, antibiotic therapy, when the cause is readily identifiable. Whenever antibiotic therapy is used, the risk of bacterial selection for antibiotic resistance is present.

Myth No. 3: The most important decision is which antibiotic to use

To avoid the deleterious effects of needless antibiotics on patients and the environment, the most important initial decision is not which antibiotic to prescribe but whether to use one at all. It has been estimated that up to 60 percent of human infections resolve by host defenses alone following removal of the cause of the infection without antibiotic intervention.



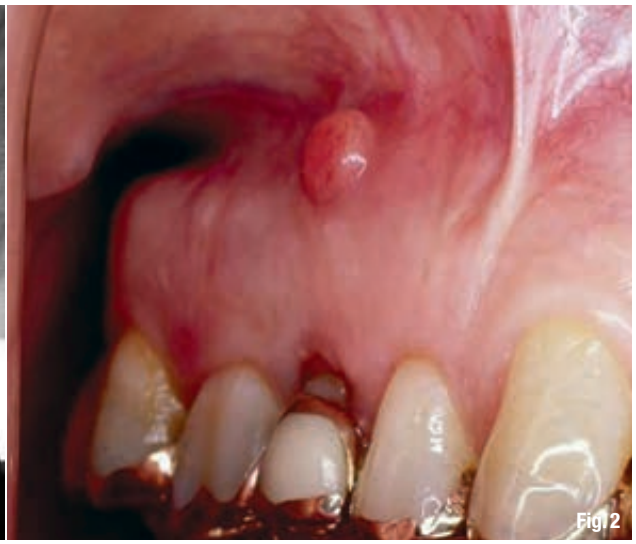


Fig. 1: Asymptomatic apical periodontitis. *(Photos/Provided by American Association of Endodontists)*
Fig. 2: Chronic apical abscess.