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A Giant of Dental History
REDISCOVERED



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Journal

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Last month, we commented here that the world dentistry now operates within is very different from that of the 20th Century. The importance of staying well-informed on issues affecting the profession, and utilizing the available tools to do this, was stressed. This time around, we intend to explore the contemporary challenges to dental practice policy and procedures from a slightly different perspective.

In the “old days,” issues of interest or concern to dentistry, such as denturism or the independent practice of hygiene, might arise and face the profession for an extended period of time. If the matter involved legislative activity, it might last for an entire legislative session or possibly be taken up and resolved in the next session. Additionally, we can recall that efforts in California to legalize initiatives such as denturism, which incorporated some of the same fervor as the safety of mercury in amalgam has during the past 12 months, would periodically reappear after efforts to bring them to satisfactory resolution by the profession had concluded.

In the past, dentistry could defend its position by educating lawmakers and the public about dangers to the quality of dental care that might be encountered if the changes sought were successfully adopted. We recall that most of the time, dentistry was very successful in these efforts. These issues might then disappear, for many years in some cases,

before resurfacing again as a concern in the public sector. For example, until last year, there had not been a serious challenge to amalgam since the “60 Minutes” event of the early 1990s was resolved. While denturism has recently been on the legislative agenda in other states, we cannot recall exactly when denturism was last an issue in California, but believe it was no more recent than the early to mid 1980s.

Well guess what! Some of these “old” issues are likely to be back again this year, and with a different and stronger resolve than before. Yes, denturism, waterlines, wastewater, hygiene scope of practice, stronger standards for in-office anesthesia, and mandatory school dental screenings by nondental personnel may all turn up in the months to come. Most of these have faced the profession at least once before.

In the past, dentistry could call upon science, and in some cases good common sense, to defend against some of the changes sought against existing standards of professional practice. In cases such as denturism and hygiene practice, we usually placed

quality of care, based upon education, front and center. It would seem logical to pursue a similar line of defense when these issues rise again; but the landscape has changed requiring, at the very least, additional strategies and negotiations if dentistry is to be successful in maintaining a desired standard of care.

With each of these issues, there are reasons within the public domain to make changes that would be contrary to dentistry's long-held positions. There is an urgency with health care issues today that places them center stage. They will not be allowed to slip into dormancy as in the past. Denturism, hygiene practice, and school screenings are all driven by the current need to improve access to care. It is unlikely that a defensive argument by dentistry questioning the quality of care of some anticipated proposals would be successful on its own merit. Such an argument will create a public relations dilemma. Can dentistry successfully speak out against a public program that has a potential to improve the access to care? We think not. Such situations may present extremely difficult, if not insurmountable, challenges to the profession.

Other issues we are likely to face will be made more difficult when the issue relates to the safety of the public. We refer to waterlines, wastewater, and anesthesia standards. Science will be extremely important in defending these issues, and up-to-date research data for each of these issues will be essential to dealing with challenges that are often emotional and sometimes filled with questionable claims of danger to the public. Initiatives in matters that would be viewed as negative to dentistry, such as waterlines and wastewater, can also be expected to be supported by the economic interest of manufacturers in the former, and recyclers and water districts in the latter.

What does this mean to the average practicing dentist? First, it means that we need to stay informed of the latest information and thinking on all of these issues so that in interactions with patients and others, we will be truly educating and not offering something that comes across

as a defensive knee jerk.

Second, it means that we cannot assume that drives for new standards on initiatives such as waterlines will disappear as they seemed to do as recently as a few years ago. Through regulations, all members of the profession will be expected to make changes that will place us in compliance with anticipated new standards. In the future, such standards will likely be established, not by organized dentistry, but by agencies such as the Centers for Disease Control and Prevention. And, we can expect enforcement assistance will probably come from state regulatory agencies.

This means that we need, more than ever before, to understand that the efforts of our profession carried forward by leadership or staff must defend our interests based only upon science and quality of care. We cannot step over the line with positions that will display self-interest. Any public display of dissatisfaction with increased regulations imposed upon the business practices of the dental profession will only be viewed as self-interest and could be extremely damaging to our public relations image.

Just as with the safety of mercury in amalgam last year, it is noteworthy that other issues that have been quiet for a number of years are likely to return full circle this year. We do not expect them to temporarily disappear as they have in the past. As always, our representatives will be providing the necessary guidance and information on our behalf. However, given the overriding public concern for access and safety, we must prepare ourselves for change.

Change will not slowly nibble around us as it often has in the past, fading into our subconscious after we hurl a single successful challenge at it. We expect that changes will be proposed with greater

immediacy and stronger resolve. We will depend upon the strength of our professional organization more than ever so that our position and our judgment will be made clear to those who might seek to make ill-advised changes to appropriate standards or methodologies. The road ahead will not be an easy one.

Dental Offices Moving Away From Clinical Look

BY DELL RICHARDS

When the Prosthodontic Dental Group first envisioned a new office, they did not want the 2,900 square foot space to look like a typical dental office. Since many of their cases involve complex restorations that have been referred by other dentists, their patients can be more nervous than most.

Creating a calming environment was at the top of their wish list. The finished design does just that.

A slate and pebble waterfall in the lobby immediately puts patients at ease.

"The sound of running water creates a very soothing environment," said Barry Hoffman, one of the three partners. The 6-x-4-foot water feature that sits on a cabinet also hides banks of charts. "We didn't want the patients to see the files."

By hiding the computers and workspace, the extra-wide granite reception counter keeps the illusion that the lobby could be an upscale living room instead of an office.

"You can't see the work area," Hoffman added. "All you can see is the receptionist and the staff. The patient isn't immediately reminded that they are in a dental office by seeing files, computers and clutter on the desk."

Curved corners with banks of glass blocks and extra-wide halls give a sense of openness to the area. "People don't want to feel closed in," Hoffman said. "We wanted a feeling of spaciousness throughout the office, so patients wouldn't feel hemmed in. We wanted the design to be as people-friendly as possible."

In moving away from the clinical look of dental offices, the Sacramento prosthodontic group is part of the latest trend.

"These days, the further away you can get from the look of a dental office, the better," said Jeanne Maloney, CID, and principal of Design Directions. A designer of dental and medical offices for the more than 20 years, Maloney has her finger on the pulse of what's happening.

Having an office that resembles a spa or an upscale home is one of the biggest changes she has seen in the field in the past few years. "Dentists are creating a different ambience in their lobbies. They want people to feel like they're being pampered, even waited on," Maloney said.

For someone who is fearful of visiting the dentist, this approach is just what the doctor ordered.

Waterfalls are the hallmark of patient comfort. "We've done a lot of water treatments this year," Maloney said. As a result of this growing trend, "we've found companies who will custom-design wonderful water features."

Table lamps with shades, hardback books instead of magazines, and soft lighting all create a "homey" atmosphere. Being served gourmet coffee or herbal tea also makes the patient feel as if he or she is at a friend's home rather than a business. Even simple touches like rounded-back chairs and radius wall corners take away from a hard-edged look that subtly adds to the tension a patient feels.

According to Maloney, design can add to or detract from that sense of a trusted relationship dentists want their patients to have. "Every detail of the design can help the patient feel that they are in good hands," Maloney said.

Attention to detail is the hallmark of Craig Wada's Rocklin office. From the scent of eucalyptus and rosemary in the lobby to the eye gels and cashmere neck wraps during treatment, the prosthodontist has created an office that

is closer to a spa than most.

"When you walk in, there is a Zen sense of calm," said Carey Wada, Craig's dental-consultant wife. When they built the office in 1999, Carey Wada admits they did the opposite of the "space is money" mantra often taught by consultants. "We devoted everything to patient comfort," Wada said.

As a result, patients relax in leather recliners in the lobby or in a soundproof "quiet room" before seeing the dentist. Through two glass walls of the quiet room, they can watch birds in a garden full of birdhouses and birdbaths. Significant others can also set up computers and work if they want to accompany a nervous patient to the office.

The calming atmosphere helps overcome what Carey Wada calls the psychological impact of having unstable teeth from years of "something always going on."

"The public has a real distrust of dentists," Carey Wada said. "The mouth is such a highly private part of the body, it is so personal that many people feel uncomfortable having their teeth worked on."

As such, Craig Wada meets with the patient the first time in the quiet room instead of the dental chair. Appointments in the operatory come later. Although it usually takes more time, Carey Wada says that their approach is based on a solid clinical foundation of examination, diagnosis and planning treatment that "deals with fear on a therapeutic level."

Whether the look is that of home or spa, the trend in dental offices is not only away from a traditional clinical design, but toward a more patient-friendly approach that helps put every patient at ease.

Dell Richards is the owner of the Sacramento public relations firm Dell Richards Publicity. She specializes in health care clients.

Fellowship Created to Encourage Periodontal Teaching

A new fellowship has been created by the American Academy of Periodontology Foundation to encourage periodontal students to enter teaching.

The Abram and Sylvia Chasens Teaching and Research Fellowship will provide \$30,000 per year to fund two fellowships awarded to students who have a stated career goal of periodontal education and who are in their third year of an accredited periodontal residence program.

"The Foundation is extremely appreciative of the fellowship and the spirit with which it was created," notes L.K. Croft, DDS, president of the AAP Foundation. "As an educator, researcher, and practitioner, Dr. Chasens had had a profound impact on the profession. He and his wife, Sylvia, understand the importance of attracting and retaining high-quality educators in periodontology. The Chasens Fellowship will benefit periodontal education and the profession for years to come."

The fellowship will be funded with an annual gift from the Chasens throughout their lives. To ensure the continuance of the fellowship, the Chasens have provided for the future in their estate plan. The award will be funded by a series of three gift annuities established by the Chasens. "The profession has been good to me and I want to give something back. A gift annuity program is an idea vehicle for doing this because it produces an income for me and my wife, while providing the funds we want the Foundation to have," Abram Chasens said.

Racial, Ethnic Health Disparities Improve

A new report shows significant improvements in the health of racial and ethnic minorities, but also indicates that important disparities in health persist among different populations.

The Department of Health and Human Services report presents national trends in racial- and ethnic-specific rates for 17 health status indicators during the 1990s. All racial and ethnic groups experienced improvements in rates for 10 of the 17 indicators. At the same time, the report also shows that despite these overall improvements, in some areas the disparities for ethnic and racial minorities remained the same or even increased.

"Our goal is to eliminate disparities in health among all population groups by 2010," Health and Human Services Secretary Tommy G. Thompson said. "While we are making progress, this report shows how far we still have to go."

The report is part of Healthy People 2000, an effort to set health goals for each decade and then measure progress toward achieving them. One of the goals of the Healthy People Initiative is to reduce disparities in health. Notable progress was made in reducing the gap in syphilis case rates and stroke death rates. However, for about half of the indicators, the disparities improved only slightly; and disparities actually widened substantially for work-related injury deaths, motor vehicle crash deaths, and suicide.

"In many ways, Americans of all ages and in every racial and ethnic group have better health today," Surgeon General David Satcher said. "But our work isn't done until all infants have the same chance to thrive, all mothers have equal access to prenatal care, and all Americans are equally protected from cancer, heart disease, and stroke."

- All racial and ethnic groups experienced improvement in rates for 10 of the indicators: prenatal care; infant mortality; teen births; death rates for heart disease, homicide, motor vehicle crashes, and work-related injuries; the tuberculosis case rate; syphilis case rate; and poor air quality.
- For five more indicators -- total death rate and death rates for stroke, lung cancer, breast cancer, and suicide

-- there was improvement in rates for all groups except American Indians or Alaska Natives.

- The percent of children under 18 years old living in poverty improved for all groups except Asians or Pacific Islanders, and the percent of low birthweight infants improved only for black non-Hispanics.

"A clear lesson for public health is that efforts to achieve progress for all must be targeted and tailored to the needs of specific groups," said Dr. Jeffrey P. Koplan, director of the Centers for Disease Control and Prevention, which prepared the report. "For example, the drop in the syphilis rate followed an intensive campaign to eradicate syphilis community by community."

The report, "Trends in Racial and Ethnic-Specific Rates for the Health Status Indicators: United States, 1990-1998," can be viewed or downloaded at <http://www.cdc.gov/nchs>. Information on Healthy People 2010 is available at <http://www.health.gov/healthypeople/>.

New Models Being Created for University-Industry Research

Intellectual partnerships and virtual research organizations are among innovative models aimed at maximizing the upsides and minimizing the downsides of university-industry research collaboration, according to an article in the Jan. 2 issue of the *Journal of the American Medical Association*.

Annetine C. Gelijns, PhD, of Columbia University, New York, and Samuel O. Thier, MD, of the Partners Health Care System and Harvard Medical School, Boston, write that interactions between the industrial and academic communities have had important public health benefits.

"Yet, there is a risk to the university-industry relationship if the cultural and ethical principles of one partner overwhelm those of the other," they cautioned.

"Concerns center on blurring lines

between academic research and the commercial world, closer ties between universities and business, and the implications of universities' newfound readiness to behave as profit-seeking entities," they wrote.

Beyond internal organizational changes, several experiments are under way with newer models of university-industry collaboration.

"Scientists in academia and industry who share complementary and overlapping knowledge can form an intellectual partnership," the authors wrote. "These joint efforts aim to speed knowledge transfer, enhance the problem-solving capacity of each side, and expand and accelerate new applications."

"The virtual research organization is another option. If each party has distinct intellectual and technical assets that would be prohibitively expensive or impossible for the other to duplicate, they could collaborate to expand their capabilities," they suggested.

"The for-profit and not-for-profit sectors differ deeply in their missions, cultures, resources, and incentives; and these differences deserve respect. That respect is best demonstrated not by offering prescriptions based on one-sided images of institutional dynamics but by recognizing that creative bridging of traditional divisions of labor is vital to medical innovation, and that this deeply felt practical need is generating exciting ventures in organizational collaboration that deserve close and dispassionate scrutiny," the authors concluded.

Safeguards Offered to Prevent Conflicts of Interest in Clinical Trials

More safeguards are needed to account for the potential for conflict of interest in the conduct of clinical medical trials in both academic and community-based settings, according to an article in the Jan. 2 issue of the *Journal of the American Medical Association*.

"As the biotechnology and

pharmaceutical industries continue to expand research activities and funding of clinical trials, and as increasing numbers of physicians both within and outside academic health centers become involved in partnerships with industry to perform these activities, greater safeguards against conflicts of interest are needed to ensure the integrity of research and to protect the welfare of human subjects," wrote Karine Morin, LLM, and colleagues from the AMA's Council on Ethical and Judicial Affairs.

"Physicians should be mindful of the conflicting roles of the investigator and clinician and of the financial conflicts of interest that can arise from incentives to conduct trials and to recruit subjects," they wrote.

They recommended the following guidelines:

- * Physicians should agree to participate as investigators in clinical trials only when it relates to their scope of practice and area of medical expertise.
- * Physicians should be familiar with the ethics of research and should agree to participate in trials only if they are satisfied that an institutional review board has reviewed the protocol, the research does not impose undue risks on research subjects, and the research conforms to government regulations.
- * When a physician has treated or continues to treat a patient who is eligible to enroll as a subject in a clinical trial that the physician is conducting, the informed consent process must differentiate between the physician's roles as clinician and investigator.
- * Any financial compensation received from trial sponsors must be commensurate with the efforts of the physician performing the research.
- * Physicians should ensure that protocols include provisions for the funding of subjects' medical care in the event of complications associated with the research.

- * The nature and source of funding and financial incentives offered to the investigators must be disclosed to a potential participant as part of the informed consent process.
- * When entering into a contract to perform research, physicians should assure themselves that the presentation or publication of results will not be unduly delayed or otherwise obstructed by the sponsoring company.

Solyman Brown, a Giant of Dentistry and its Poet Laureate

MALVIN E. RING, DDS, MLS

ABSTRACT Solyman Brown (1790-1876), widely hailed by his contemporary literary establishment as the “Poet Laureate of Dentistry,” was one of the visionary individuals who put dentistry on a true foundation of professionalism. He was instrumental in the formation of the first dental journal, the first national dental society, and the first dental school. He is one of the true giants in the history of American dentistry.

Solyman Brown’s great-great-grandson was cleaning out his father’s attic and found a trunk full of original material relating to his illustrious forebear. Among the wealth of material was a notebook kept by Solyman’s daughter, Augusta. Selections from it give us a rare personal insight into the type of person this significant dental historical figure was, as well as the struggles he endured in his hard life.

AUTHOR

Malvin E. Ring, DDS, MLS, FACD, is the author of *Dentistry an Illustrated History*. He practiced dentistry for more than 30 years in Batavia, N.Y.

It takes three things to make a profession: formal schooling, an organization, and a literature. Until 1839-1840, these things did not exist in dentistry. Then a number of visionary practitioners got together and turned the trade of dentistry into a profession; and foremost among these was Solyman Brown, a giant in dentistry who ranks with Chapin Harris and Horace Hayden.

Brown worked in a number of fields. He held the degrees BA (Yale), MA, MD, and DDS. He had started his work life as a Christian minister in Connecticut, but differences with some of the leaders in his church led him to become a prominent

author: He published a number of books outlining his views of what religion should be. He was a sculptor, a painter, and an essayist, having his writings published in the leading literary journals of his day, the first third of the 19th century.

A friend of many of the leading artists and writers of his day, he carried on a steady correspondence with them on subjects including art and religion. Among his closest friends was Fitz-Greene Halleck (1820-1905), a noted poet who was often termed “The American Byron.” Brown was also a woodworker who built beautiful furniture; and, when his fortunes fell in his middle years, he built his own house with his own two hands.

A Treasure Trove of Memorabilia

A great-great-grandson of Solyman Brown, Earle Koeble of Gerber, Calif., discovered a trunk in his father's attic that contained a wealth of original memorabilia -- including letters, diaries, and family photographs -- of his celebrated ancestor. These, never having been seen before, were made available by Mr. Koeble to the author. Among the items in the trunk was a fair-sized book of memories of Solyman Brown written by his daughter, Augusta. It is this book of memories that served as the basis of this article, and several passages give us a rare glimpse of the personal life of a great figure in dental history.

[Father] entered Yale at fourteen and graduated at eighteen; he broke down in health from over study and too meager a diet. He took a room with another boy and they foraged for themselves. They gave up eating meat and most other cooking. Having packed his tiny trunk, he was carrying it down two flights of stairs when he collapsed. His doctor advised him to "go West" and spend the summer in outdoor work. He started with an axe on his shoulder and worked his way as far as Forest City, [now Ithaca] New York, and joined a lumber camp. ... In the winter he returned home and taught school for a while, then studied for the ministry. ... He preached for a while in Litchfield [Connecticut] but finally settled in New York where he eked out a small salary by teaching in the New College and in a Young Ladies Seminary ... where he was teaching Mathematics and Languages. There he taught Miss Elizabeth Butler, then only 15 years old. They became attached and her father took her out of school and sent her for a year to his brother's at Suffield, Connecticut. He [S.B.] wrote to her there, but her uncle, by request from her father, did not deliver the letters. After seven years they met again at the house of a mutual friend who had married father's friend, Dr. Samuel Parmly.

Going home from this friend's, she took him in to see her father, and told him she was going to marry Mr. Brown "with her father's consent or without it." Of course, the consent was given. She was of age, although only half as old as he; she twenty-two and he forty-four.

They were married on Dec. 23, 1834. He had been studying dentistry up to this time with Dr. Eleazar Parmly of New York. However, the Swedenborgian Church, which he had joined in 1820, appointed him a missionary; and so he debarked, with his new wife, on a trip that took them as far east as Halifax, Nova Scotia, and as far south as Wheeling, W.V. Ultimately, they had eight children together, five daughters and three sons. Solyman named his second son Eleazar Parmly Brown, after his dear friend and mentor.

Solyman Brown Enters the Field of Dentistry

Although Solyman Brown had been in demand as a minister, in 1832 he had to give up preaching because of trouble with his throat, and his close friend Eleazar Parmly offered to teach him dentistry. Brown moved in with Parmly at 11 Park Place in New York City. Parmly not only taught him the basics of dentistry, but the two worked together to perfect porcelain teeth for dentures. Soon thereafter, Parmly married; and Brown took up residence at a house nearby, 9 Park Place.

After Brown and his young wife returned from their trip for the Swedenborgian Church, they settled in New York City, where Brown began a dental practice in conjunction with a Dr. Samuel Avery. They advertised in the Evening Post that Solyman Brown was doing mechanical dentistry (i.e., dentures and bridgework) exclusively, and that Samuel Avery was doing all necessary surgery.¹ Their work was commended

by the highly respected Eleazar Parmly. Nevertheless, the partnership was disbanded after a year.

The Terrible State of Dentistry in the Early 19th Century

American dentistry in the first third of the 19th century was in chaos. There were no legal requirements for treating patients, even if one had no schooling. Quacks and charlatans abounded, and the public was at their mercy. No regulations existed as to the type of training a practitioner must have. Since there wasn't a single school of dentistry anywhere in the world, practitioners of the trade were taught by the preceptorial -- or apprenticeship -- method; and what was taught was left to the discretion of the established dentist. Nevertheless, there were several ethical, farseeing, dentists who undertook to right the situation. Among these were the profession's immortals, Chapin Harris, Horace Hayden, Solyman Brown, and Eleazar Parmly.

It was through his friendship with Parmly that Brown had become acquainted with all the leading figures of the dental profession at the time. These men were aware of the need for ethical constraints in dental practice. Perhaps they were urged on by their disapproval of the work of the Crawcour brothers, who had introduced the use of silver amalgam to this country. Although the material was later embraced by the whole profession, it was the Crawcours' charlatanish ways and shoddy practice that turned these upstanding dentists against the material itself and forced the hasty decamping of the Crawcours back to Europe.

The Beginning of Professional Dentistry

Because of this sorry state in which dentistry found itself, 15 dentists came

together in New York City on Dec. 3, 1834, and organized the first dental society in the United States, the Society of Dental Surgeons of the City and State of New York. Hayden was chosen as president, Parmly as vice president, and Brown was named the recording secretary, being elected president in 1839. Unfortunately, the dispute over the propriety of the use of amalgam in practice -- termed the "Amalgam War" -- led to the demise of the organization a few years later.

The benefits to be gained from contact with other practitioners became apparent during the existence of the first society. Thus, a demand grew in the profession for the establishment of a dental journal to which dentists throughout the country could contribute, telling of their experiences, their discoveries, their ideas and suggestions. It was Solyman Brown who, as secretary of the Committee on Publishing, urged a planning meeting. Accordingly, in May 1839, several dentists -- including Parmly, Elisha Baker, and Harris -- met at Brown's home and founded the first dental periodical in the world, the *American Journal of Dental Science*. The first issue appeared a month later, on June 1, 1839, with Brown as the editor.

Brown, Harris, Hayden, and Parmly, working together in 1839, founded the world's first dental school, the Baltimore College of Dental Surgery. Because Brown lived and practiced in New York City, it was impossible for him to teach at the new school. However, he helped shape the curriculum and the school's goals.

In 1840, Brown again took the initiative and called a meeting for the purpose of organizing the first national organization of dentists in the world. This meeting took place at Brown's home, 17 Park Place in New York City, on Aug. 10, 1840. The result was the establishment of the American Society of Dental Surgeons,

the first organization of its kind in the world. Because of his erudition, Brown was named the first secretary of the Society, a post he was to hold for five years.

Brown Combines Dentistry and Preaching

Either because he couldn't earn enough to support his growing family or because of his innate love of the ministry, Brown again changed his occupation. His younger brother, Augustus, had trained with him in dentistry; and in 1844 Solyman had taken him into his office as a partner. During this time, Solyman had become a devotee of Fourierism after observing Dr. Channing's Brook Farm Community and decided to leave dentistry for the ministry. He sold his practice to his brother and to a Dr. John Allen and left for LeRayville, Pa., where he became a member of the North American Phalanstery. (Congregations were organized into "phalanxes.") However, he didn't approve of the teaching methods there and uprooted his family once again and moved to Ithaca, N.Y. There he preached to a few New Church people and also did some dentistry, assisting a Dr. Miles in his office. After a year, he left again for Danby, just south of Ithaca, and took over for the resident preacher, Dr. Lewis Beers, who was almost 90 years old. Augusta's description of what the family life was like in 1846 gives us a wonderful picture of the man Brown was.

The congregation was small, and father had a hard time getting enough salary to support his family, keep an old blind horse, a cow and some chickens. But he was a good gardener. ... When mother was busy with a baby, father would take the youngsters into a room off the kitchen when he was writing a sermon and amuse us for a long time, and at the same time sit at his desk and write,

holding the youngest, and letting the next oldest curl his longish hair.

In the summertime we could help him in garden and field. In very cold weather he would make doughnuts or cookies, cutting them out in fancy shapes of animals, birds, etc. and let us fry or bake them. His salary was so small for the large family that father had to seek out some lucrative business in the city. So he moved to New York.

Brown Manufactures Porcelain Teeth

Prior to the great discovery of porcelain (terrometallic) teeth, made by the Italian Guiseppangelo Fonzi in 1809, teeth for artificial dentures were usually made of hippopotamus or elephant ivory, with the anterior teeth being from humans, harvested from corpses. This was repugnant to most who had to wear dentures, and thus the introduction of porcelain teeth had a monumental impact.

French dentist Antoine Plantou introduced them to the United States in 1817 and taught a number of American dentists and others how to produce them.² Among these was a Philadelphia jeweler named Samuel Wesley Stockton, who, in 1825, began a business of manufacturing these porcelain teeth in quantity. He took in as his apprentice his nephew, Samuel Stockton White, who was destined to become one of the leading dentists of the 19th century.³

The Brown family's fortunes were always in a critical state. In 1851, the family had moved again, this time to a house in Brooklyn. Solyman had become a salesman in New York for Stockton's company. Thus Brown had to take the ferry to Manhattan to his office, the New York Dental Depot at 251 Broadway.⁴ That first year was one of the coldest winters the city had ever experienced, and the East River froze over. When it thawed, the ice broke up and choked the bay, stopping

the ferry service to Manhattan; and Brown, not to be deterred from getting to his office, walked to his work on the jammed ice floes. This was so tiring that he didn't try it again.

The association with Stockton proved short-lived, and Brown returned to dentistry, entering the office of the renowned "Father of Oral Surgery," Dr. Norman Kingsley, on Washington Square in New York City. Kingsley performed surgery and prosthetic dentistry; Dr. Samuel Lockwood did the operative dentistry; and Brown served as office manager. This association was short-lived as well, although they ended it on good terms.

Seeking a new venue, Brown, in conjunction with Dr. Charles S. Miles and John M. Crowell, organized the New York Teeth Manufacturing Company to produce artificial teeth in quantity. The company also issued a newsletter, *The Forcep*, but like his other ventures this, too, ended in failure in 1860. His daughter, Augusta, recalled this period in her memoirs.

Father had been selling dental supplies for Stockton of Philadelphia, but now he and Dr. Miles and Crowell opened a large establishment and manufactured teeth as well. To be nearer his work, and not have to cross a ferry, Father moved to New York again, taking a large house on Washington Park.

Mother had a very hard life there and her youngest child, Virginia, was born there. And since the business did not prove a success, father moved back again to Brooklyn and took on some literary work.

In the spring of the year 1853, a magnificent Crystal Palace opened in New York. This was the centerpiece of a World's Fair and had exhibitors from many countries showing their products. Brown saw this as an opportunity to further his

manufacturing, and Augusta wrote that

Father put in and exhibited some of the work of his Teeth Manufactory. Owing to some defect in the machinery of the exhibits in the basement of the Palace, it took fire in September and almost everything was burned. Father was there at the time, and with the help of some visitors, he was able to save even his glass display case!

The Brown family was a constant victim of hard times and to make ends meet took in boarders. But 1857 was the year of the "Great Panic," and Brown's manufacturing business failed. He tried the ministry again in several cities, finally locating in the tiny village of Danby, N.Y., south of Ithaca. He bought a tiny house there that was bursting at the seams with his large family, and a bigger house was hard to find. So he set about, on his own, building a new house.

Father enlarged the house by making another adjoining it with a hall between, and we girls all helped him; besides having several of the neighbors give him a day's help at raising the roof. After that Father built the chimney before he had laid the floors, except for a few loose boards around the bricks to stand on as he did the work. When nearly through, as he was going up the ladder between the second floor and the roof, the hod of bricks struck something and bricks, ladder and Father went through to the cellar, carrying all the little planks with them. Mother heard the noise, but was used to noises, and hearing nothing more, thought all was well. But a while after father walked softly in, lay down on a lounge, and asked if she had any brandy or spirits in the house. Of course, there was none. "Get me some peppermint and water," he said. She gave him a good strong dose. He was bruised some, but the next day went to work again, after making the ladders more

secure.

The Poet Laureate of Dentistry

Early in his life, Dr. Brown had turned his hand to poetry. He published an "Essay on American Poetry with several Miscellaneous Pieces on a variety of Subjects, Sentimental, Descriptive, Moral, and Patriotic in 1818.⁵ But his poetry really came to the attention of the public when, on Feb. 22, 1822, at Washington Hall in New York City, he recited an epic poem of 16 pages, "The Birth of Washington," celebrating the natal day of our first president. He repeated, by request, the recitation again on March 4.⁶ However, it was the publication in 1833 of his epic work of some 80 pages, "Dentologia, a Poem on the Diseases of the Teeth and their Proper Remedies,"⁷ that brought him critically favorable reviews from the literary establishment of the day and led to his being hailed as the "Poet Laureate of Dentistry." This poem was followed by the publication in 1838 of another major work on dentistry "Dental Hygeia, a Poem on the Health and Preservation of the Teeth."⁸

The Impact of "Dentologia"

Brown's poem "Dentologia" created a sensation in the literary world. The principal literary magazine *The Knickerbocker*, which published from 1833 until the 1860s, reprinted large portions of the poem. Its major literary critic, in speaking of the poem, said that "Mr. Brown has selected a subject of general and paramount interest, hitherto unattempted in rhyme. ... He has arrayed the subject in the chaste, and beautiful, and elegant vesture of genuine poetry. ... When we consider the difficulty of inculcating the principles of any art or science in the inverted language of poetry, embarrassed by the shackles of rhyme,

we are compelled to acknowledge that the author of *Dentologia* has won his laurels in a hard fought field.”⁹

Several cantos will serve to show how Brown’s epic poem taught the importance of dental care. In one canto, Brown discussed the fate of Urilla, a fictitious character, for the purpose of illustrating the fatal consequences of neglecting the teeth:

*And she herself is fair in form and face;-
Her glance is modesty, her motion grace,
Her smile, a moonbeam on the garden bower,
Her blush, a rainbow on the summer shower,
And she is gentler than the fearful fawn
That drinks the glittering dewdrops of the lawn.
When first I saw her eyes, celestial blue,
Her cheeks vermilion, and the carmine hue
That melted on her lips; - her auburn hair
That floated playful on the yielding air;
And then that neck within those graceful curls,
Molten from Cleopatra’s liquid pearls;
I whispered to my heart: - we’ll fondly seek
The means, the hour, to hear the angel speak;
For sure such language from those lips must flow,
As none but pure and seraph natures know.
Twas said - ’twas done - the fit occasion came,
As if to quench betimes the kindling flame
Of love and admiration: - for she spoke,
And lo, the heavenly spell forever broke,
The fancied angel vanished into thin air,
And left unfortunate Urilla there;
For when her parted lips disclosed to view,
Those ruined arches, veiled in ebon hue,
Where love had thought to feast the ravished sight
On orient gems reflecting snowy light,
Hope, disappointed, silently retired,
Disgust triumphant came, and love expired!
Brown presented another case, that of a
fictitious young woman, Seraphina, who,
although a very popular and beloved singer,
had chosen to remove herself into solitude*

*from the company of her friends.
To lonely solitude she gives her hours,
In shady copse, or shadier garden-bowers.
In silent grief, and unconsoled, she pines,
And scarce to heaven’s high will her soul resigns.
For, lo, the heavenly music of her lip
So sweet, the laboring bees might stoop to sip,
Has passed away; discordant notes succeed,
And Seraphina’s bosom lives to bleed.
Ye ask the cause:- by premature decay,
Two of her dental pearls have passed away;
The two essential to those perfect strains,
That charm the soul when heavenly music reigns.
But fly, ye swains, to Seraphina fly,
And bid her fastly flowing tears be dry.
Haste to her cottage, where in vain she seeks
To wipe the burning deluge from her cheeks;
And when ye find her, soothe her frantic mind,
And bid her cast her sorrows to the wind;
In secret whisper this kind truth impart:
There is a remedy: - the dental art
Can every varying tone with ease restore,
And give thee music sweeter than before!*

“The Knickerbocker” critic ends his review with these words: “When

we consider the importance of these organs [the teeth] to the healthy condition of the System, we cannot hesitate to express the opinion that every member of civilized society who respects the ordinary decencies of life, and pays the slightest regard to personal appearance, health and happiness, should be deeply and constantly impressed with these sentiments.”

The effect Brown’s poem had on the status of dentistry was well summed up by the *Dictionary of American Biography*, (Vol. 3, Page 155). It commented that *Dentologia* -- the only didactic poem in English, [is] a real literary curiosity, which was very favorably received by the critics. It was reprinted five times and had a

great influence in elevating dentistry as a profession.”

Solyman Brown’s Last Days

In 1874, Solyman’s daughter, Columbia married; and she and her husband moved to Minnesota and settled in Wasioja, a hamlet on the plains, a few miles from the small village of Dodge Center. There Solyman and his wife spent their last years in happy pursuits and happy surroundings among their loved ones. Solyman took up growing watermelons and other fruit. When he was 86, he wrote, “The truth is that in my present state, I enjoy a great deal and suffer a great deal.” Solyman left this earth three months past his 85th birthday, and of this his daughter, Augusta, wrote

Father died on February 13, 1876, of pneumonia. Mother said he took severe colds and he lived only a few days. Both he and Mr. Tuthill were Masons, and he was buried by the organization there. A monument to his memory was erected there, with this verse inscribed:

*Ever his face was set to go
Up toward Jerusalem.
Ever he lived and walked as though He saw
its golden beam.*

His wife, Elizabeth, joined him in death seven years later. Together they were survived by 84 descendants.

The late dental historian, Dr. M.D.K. Bremner, evaluated Brown’s contributions succinctly: “Apparently everything is a matter of luck, even immortality. Hayden and Harris have gained renown as the founders of professional dentistry. Busts and plaques have been dedicated in their honor. The details of their lives have been preserved and recorded, while Eleazar Parmly and Solyman Brown, their co-workers and helpers, who contributed so much to the success of their various undertakings, have been completely

forgotten.”¹⁰

This great benefactor, not only to the profession of dentistry, but to the world of literature and learning, has surely earned a place of honor among civilized peoples.

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Simultaneous Immediate Placement and Immediate Loading of Implants in the Maxilla: A Case Presentation

IAN AIRES, DDS, AND JOEL BERGER, DDS

ABSTRACT The standard three- to six-month healing time for implants is no longer an absolute. In selected cases, it is now possible to load the implants in fewer than two months; and, in some cases, immediate loading is possible. This article contains a case study showing that with careful patient selection, immediate loading appears to be an acceptable technique.

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The standard three- to six-month healing time for implants is no longer an absolute. In selected cases, it is now possible to load the implants in fewer than two months; and, in some cases, immediate loading is possible. The transition from early loading to immediate loading is now being made. This new thinking will rekindle the excitement of implant dentistry that was experienced in the early 1980s.

The protocol described by Adell and colleagues¹ in their classic 15-year study prescribed a two-stage approach. The implant was buried for at least three months in the mandible and six months in the maxilla before loading with a prosthesis.

This standard has been used for 20 years with excellent long-term results.¹⁻³ The protocol described by Branemark and Adell also recommended primary closure

of the implant site, with no pressure being exerted on the tissue for at least one week.

New Thinking

1990

Almost 10 years after the publication of the 1981 15-year study of Branemark and Adell, Schnitman⁴ published a small study describing immediate loading of mandibular implants in nine patients.

Schnitman placed seven to eight implants per patient, three of which were immediately loaded with a fixed detachable hybrid prosthesis. The remaining four to five implants were buried in the standard two-stage protocol. After the standard four-month healing period, the buried implants were uncovered and the prosthesis attached. Although the initial results seemed promising, there was a statistical

difference in the number of implants lost that were immediately loaded compared with those that were buried in the two-stage protocol.

1994

Henry and Rosenberg⁵ placed six mandibular implants each in five patients. Four of the six were loaded immediately with a provisional removable overdenture. At

seven weeks, a permanent prosthesis was placed. The results showed 100 percent success: All implants integrated.

1997

In 1997, Schnitman⁶ followed his initial study from 1990 with 10-year results of the original nine patients. Of the 28 immediately loaded implants, four were lost in four patients. None of the buried implants was lost. Most of the failed implants were short (7 mm in length) and were placed in poor quality bone in the posterior mandible.

Also in 1997, Balshi and Wolfinger⁷ reported on 10 patients in whom a total of 130 implants were placed. Of 40 immediately loaded implants, eight were lost, representing a 20 percent failure rate. Four of the buried implants were lost, representing a 4.4 percent failure rate. The 20 percent failure rate for the immediately loaded implants seemed unacceptable. However, the overall failure rate for all the implants was 9.2 percent.

A landmark study published by Tarnow⁸ showed for the first time immediate loading in the maxilla as well as mandible. Until this study, all the immediately loaded implants had been placed in the mandible. In this study, a minimum of 10 implants was placed per jaw. Initially, five were submerged for medicolegal reasons. Later, as it became apparent that the success rate was high, more implants were loaded. Of the 69 immediately loaded implants, 67 integrated. Of the 38 submerged implants, 37 integrated. Three implants were lost of 107 implants placed.

According to the authors, one implant was lost due to infection from an adjacent extraction site. Two were lost due to tapping off the provisional bridge during the initial three- to six-month healing period. Both of these implants had been placed in extraction sockets. Of the 10 patients completed, eight lost no implants.

The protocol described by the authors for immediate loading is as follows:

1. Only edentulous arches are to be used.
2. Implants should be at least 10mm in length.
3. A diagnostic wax-up is necessary for a surgical guide and for fabrication of heat-processed provisional bridges. It is recommended to use a metal bar on the lingual aspect of the bridge for rigidity.
4. It is preferable that a screw-retained bridge be used. If a cemented bridge is used, it should not be removed for the duration of the healing period (three to six months).
5. The implants should be tested for stability at stage 1 with a Periotest instrument.
6. The widest possible anterior-posterior distribution should be sought.
7. No cantilevers should be used.
8. Cross arch splinting is mandated.

1998
In 1998, Lazzaro⁹ reported on 429 Osseotite implants placed in 155 patients. In this multicenter study, 10 centers reported on their results. The patients were followed for a mean of 10 months.

This was not a true immediately loaded technique. The implants were placed with a single-stage surgical technique but were loaded at two months. However, there was

no cross-arch splinting. Both single and multiple units were placed: 83 single implants and 129 multiple units of two, three and four implants. Seven out of 429 failed to integrate for a success rate of 98.3 percent.

1999

In 1999, Randow¹⁰ and colleagues reported on a study in 16 patients. Implants were placed only in the mandible. A total of 88 implants were placed with an average of 5.5 implants per patient. The implants were loaded after 20 days. At 18 months, all implants were successfully in function. In another study by Branemark¹¹ in 1999, three implants were placed in the mandibles of 50 patients and immediately loaded. The system, Branemark Novum, includes specially designed surgical and prosthetic templates and superstructures. Of 150 implants placed, three failed to integrate. One prosthesis failed of the 50 fabricated.

A Case Report

With the information gathered from studies of early and immediate loading, the authors decided that there were enough data available to proceed with immediate loading in a private-practice setting. Case selection would obviously be an important factor in

proceeding with this new technique. The authors used the Tarnow protocol of immediate loading as their blueprint in case selection.

Case Selection

A 57-year-old female patient was referred for evaluation for dental implants. At the time of evaluation, the patient had a fixed restoration extending from tooth No. 2 to tooth No. 12. She was missing teeth Nos. 3, 4, 5, 6, 7, 8, 9, and 10. Tooth No. 2 was mesially inclined with a large periodontal defect as well as recurrent decay under the crown (**FIGURE 1**). The bridge was clinically loose. Teeth Nos. 11 and 12 could not be salvaged (**FIGURE 2**). The residual ridge had severe resorption in a buccal/palatal dimension. Vertically, there was adequate bone. A decision was made to reconstruct the patient with a fixed restoration using immediately loaded implants and a provisional restoration followed by a seven-month period of osseointegration



FIGURE 1. Panororal radiograph shows the failed long-span fixed bridge and mesially inclined No. 2.



FIGURE 2. Occlusal view of the remaining natural teeth. Nos. 2, 4, 11 and 12 were not restorable.



FIGURE 3. Surgical guide to aid implant placement.



FIGURE 4. A topless custom tray was fabricated ahead of time to allow for a pick-up impression of the impression copings.

and final restorations. Because of the narrowed arch, laminate grafts were planned to be done simultaneously with implant placement because it was believed the patient had adequate bone superiorly to get initial good stabilization of the implants.

The treatment plan involved the following:

1. Extracting the remaining maxillary teeth except for teeth Nos. 13 and 15, which were deemed to be periodontally and restoratively sound.
2. Placement of eight to 10 implants in the areas located between the right first molar across to the left first premolar.
3. Loading the implants immediately at the time of surgery with a heat-processed, metal-bar-reinforced provisional bridge.
4. Cementing the provisional bridge and retaining for six months before removal.

Laboratory Preparation

A number of steps were taken prior to the surgical placement. These included the following:

1. Face-bow recording and diagnostic assessment of implant placement. After the case was mounted on an articulator, implant positioning was determined. By correlating the panoramic radiograph and the position of the clinical crowns, the best positions for the implants were determined. It was evident that autogenous bone grafting would be required in certain locations.

It was determined that teeth Nos. 13 and #15 were sound. It was decided to retain these teeth and fabricate a three-unit fixed partial denture extending from No. 13 to No. 15.

2. Surgical guide fabrication (**FIGURE 3**). The patient was pleased with the esthetics of her existing fixed partial denture. Therefore, the fixed bridge was used as a guide to the desired position of

the implant crowns.

3. Custom tray fabrication (**FIGURE 4**). An open-top tray was fabricated to allow for a pick-up type of impression. To reduce any stresses on the implant, a transfer type of impression was not used.

4. Heat-processed provisional bridge. This bridge was fabricated using the positioning and size of the existing fixed partial denture. The bridge was designed to be relined at the time of surgery and then cemented for six months.

A metal lingual bar was fabricated to help reinforce the provisional bridge.

5. Interim partial denture (**FIGURE 5**). Should it be determined at the time of surgery not to immediately load the implants, an interim partial denture was fabricated to replace teeth Nos. 3 through 12.

6. Selection of temporary titanium abutments and lab analogues. It was important to have a wide selection of abutments. Different diameter abutments would be needed if different diameter



FIGURE 5. An interim partial upper denture fabricated to be used if immediate loading of the implants was not possible.



FIGURE 6. Pick-up of the impression copings after partial closing of the tissue flap.



FIGURE 7. Lab analogues are attached to the impression copings, and a solid cast is poured.

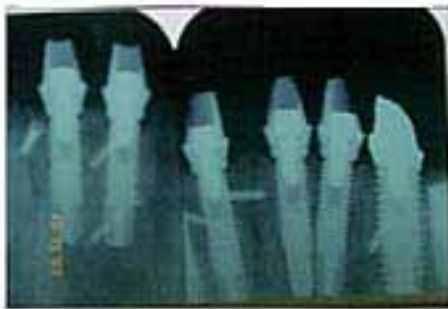


FIGURE 8. Titanium straight and angled abutments are seated onto the implants.



FIGURE 9. One-week postoperative, the provisional bridge is checked for occlusal interferences.



FIGURE 10. Weekly checks of the provisional bridge were made to perfect the bilateral centric stops and eliminate any lateral interferences.

implants were used. Both straight and angled abutments were needed, as the likelihood was high that some of the implants would be facially inclined.

Surgical Procedures

The patient was taken to surgery in the authors' outpatient surgery center and underwent hip graft with reconstruction of the alveolar width. With a previously constructed surgical guide using implant paralleling jigs and rings, the implants were placed in a previously determined position, based on a wax bite and diagnostic models. After the implants were placed, laminate grafts were placed to build up the palatal/buccal dimension and stabilized with screws. A bone chip (3 mm x 4 mm) was placed and tacked down to the available bone in the intraradicular bone between the implants of Nos. 8 and 9. This would help to support the papilla between those two teeth.

After an appropriate length of

osseous integration, all the implants were uncovered, healing abutments placed, and the patient began the final restorative phase of treatment.

The most posterior implant on the left side was left buried and not uncovered because of the proximity to tooth No. 13, which would not allow a cosmetic and cleansable situation.

Prosthetic Treatment

Once all 10 implants had been surgically placed, the decision was made to load seven implants and allow the remaining three to heal submerged. The submerged implants were:

1. In the No. 3 area: This area required extensive bone grafting.
2. In the No. 4 area: an immediate extraction site
3. In the No. 11 area: an area of immediate extraction and implant placement. A large bone graft was placed

over the facial aspect of this implant.

Impression

Impression copings were secured to the implants with long retaining screws, and the custom tray was loaded with a medium-body polyvinyl siloxane material. Once the material set, the screws were removed and the impression removed together with the impression copings (**FIGURE 6**).

Lab analogues were then screwed onto the impression copings, and a plaster cast was poured (**FIGURE 7**). This allowed the option of relining the case on a cast rather than directly in the mouth.

Appropriate temporary abutments were selected and seated on the implant analogues. The provisional bridge was then relined over the abutments. The abutments were then seated onto the implants (**FIGURE 8**). The occlusion of the provisional bridge was adjusted. This



FIGURE 11. At the final impression stage, it became evident that the implant in the No. 6 area was not integrated; and it was removed. The remaining eight implants were used to support a fixed bridge extending from tooth Nos. 3 to 12.

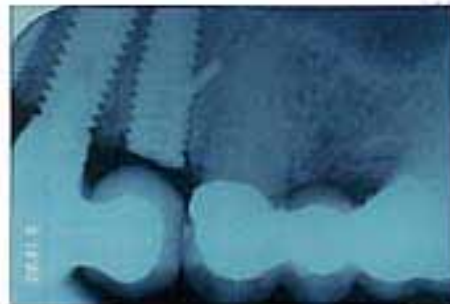


FIGURE 12. A three-unit fixed bridge was fabricated to restore teeth Nos. 13, 14, and 15.

step was taken with much deliberation and care to ensure bilateral centric stops. A balanced occlusion was developed to allow working side contacts to be evenly distributed on as many implants as possible on the right side and on the natural teeth Nos. 13 and 15.

Cementation

The provisional bridge was cemented with Temerex cement. At one week, the patient was seen for a postoperative visit; and the occlusion was checked (**FIGURE 9**). Minor occlusal adjustments were made to perfect the bilateral centric stops and eliminate any lateral interference. The patient was seen weekly to check the occlusion and monitor the patient's oral hygiene (**FIGURE 10**).

Uncovering the Implants

After an appropriate length of osseointegration, all the implants were uncovered, the healing abutments were placed, and the patient began the final restorative phase of treatment. The most posterior implant on the left side was left buried and not uncovered because of the proximity to tooth No. 13, which would allow a cosmetic and cleansable situation.

After an additional three weeks, final impressions of the implants and the two natural teeth were made. It became evident at the final impression stage that the implant in the No. 6 area was not osseointegrated, and it was removed (**FIGURE 11**). The remaining eight implants were used for a fixed bridge extending from tooth No. 3 to No. 12. A three-unit fixed bridge was fabricated to restore teeth Nos. 13, 14, and 15 (**FIGURE 12**).

The standard protocol for fabricating an implant-supported fixed partial denture was then followed (**FIGURE 13**).

The bridge was cemented with Temerex cement as final cement (**FIGURE 14**). This allowed the author to remove the bridge if necessary in the future.



FIGURE 13. Individual metal copings are seated on the abutments and joined with pattern resin.



FIGURE 14. The one-piece porcelain-fused-to-metal bridge is cemented with Temerex.



FIGURE 15. Radiograph demonstrates stable bone heights 25 months postoperative.



FIGURE 16. Eight implants support the fixed bridge with one premolar cantilever.

Conclusion

The implants were placed on December 1998, and at the writing of the article, the case is at 25 months postoperative. The patient continues to do well with no apparent bone loss around the eight implants (Figures 15 and 16). The implant bridge has been stable since it was cemented in October 1999 with Temerex cement. The authors have subsequently restored two cases using the early loading protocol. The authors' experience suggests that seating the provisional bridge two to three weeks after implant placement is less stressful for both the patient and the dentist. It also allows the dentist to have more time to fabricate the provisional bridge.

With careful patient selection, immediate loading appears to be an acceptable technique.

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Trend Indicators: The Vital Signs of Your Practice

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After having a successful practice for many years, Dr. C dropped 10 percent in production one year. The next year, he dropped another 10 percent. What was happening? Dr. C was baffled. He uncovered the cause of the problem only when he checked the “vital signs” of his practice.

We know whether a patient is stable or in danger by checking the vital signs. A dental practice, too, has vital signs, called trend indicators, that pinpoint its health. After testing these trend indicators in thousands of dental offices, we at Pride Institute say unequivocally that a practice monitoring its vital signs and correcting problems when they first occur will lead a long and healthy life. A practice not tracking its vital signs is like a person never going for a checkup -- both could develop problems, ignore the warning signs, and become seriously ill.

There are 10 basic trend indicators that need to be tracked regularly by the office team, then reviewed monthly by the dentist and staff and compared to established goals. Four indicators pertain to production:

- Total office production;
- Total dentist production;
- Dentist production per hour; and
- Hygiene production per day.

If any of these indicators falls short of daily and monthly goals, the dentist and staff need to discover the reasons and remedies. Questions to ask include:

- If total office production is down, is dentist production or hygiene production down? This tells you where to look for the problem.
- Is production per day or per hour down? If production per day is low, look at the schedule to see if appointments are sufficiently compact, with all slots filled. If production per hour is low, examine the kind of procedures and groups of them being done and if tasks can be delegated to the staff.
- Are the number of days worked down? If so, can they be made up next month?
- Were there unfilled hours? If so did they stem from open time, or from no-shows and cancellations? If from open time, are 90 percent of continuing care patients pre-appointing and keeping their appointments? If no-shows and cancellations are the cause of the low production, are systems in place to influence patients to keep appointments? Is the team filling canceled appointments with pending cases and by activating delayed treatment cases? And so on.

In the case of Dr. C, although his overall production was down, his

production per hour was steady and his recall and appointment systems were sound. His number of hours worked was reduced because he was taking extra time off due to a lack of patients. His team did an excellent job of bringing delayed treatment cases into the office, although the amount of dentistry in the charts had been declining during the past two years.

The next three trend indicators pertain to collections:

- The collection percentage -- collections divided by total office production;
- Accounts receivable ratio -- all monies owed to the practice divided by the month's total office production; and
- Accounts receivable percentage over 90 days -- monies owed over 90 days divided by total accounts receivable.

A healthy practice should maintain a collection percentage of 98 percent or higher. In a growing practice that is extending financial arrangements, a healthy accounts receivable ratio can range from 1.5 to 3 times the monthly production, provided the collection percentage is high. This means that if the growing practice is producing \$50,000 a month, it can be OK to have accounts receivable up to \$150,000, provided systems are in place to collect 98 percent. In a mature practice that wants to limit growth, we recommend that the accounts receivable ratio be less than 1.5 times monthly production. For practices extending financial arrangements for four months or fewer, the accounts receivable over 90 days should be no more than 18 percent to 20 percent of total accounts receivable. This figure will be higher for growing practices with more extended payment terms. Dr. C had a mature practice with good collections and tight payment terms. These trend indicators were not causing the problem.

The last three of the 10 basic trend indicators measure new patient counts and the success of the practice in gaining case acceptance. They are:

- Number of new patients;
- Case acceptance rate for new patients; and
- Case acceptance rate for patients of record who are having significant dentistry.

For a general adult practice, the number of new patients should normally be 15 to 25 per month. Dentists who see 60 patients a month will not have time to build strong patient relationships that lead to acceptance of quality, comprehensive care. Practices seeing too few new patients need to review their internal referral and external marketing efforts. We have found the case acceptance rate for new patients should be at least 85 percent of treatment presented, and for patients of record, 90 percent or higher. If these indicators fall short, the dentist and staff need to look for solutions again.

Dr. C's case acceptance rate for new patients and patients of record was high. However, the amount of treatment presented to his patients of record was steadily declining. Dr. C was depleting the dentistry in his patient-of-record base. And Dr. C was only averaging eight new patients per month. Although this figure was acceptable in previous years when he had more dentistry to perform on patients of record, Dr. C now needed to increase the number of new patients to boost his production because the amount of dentistry in the charts was declining. Dr. C and his staff stepped up their external and internal marketing efforts and established more flexible financial arrangements. In time, these efforts doubled the new patient count and gained

high case acceptance. Dr. C and his team reversed the downward production trend, and they are now in a growth phase.

And so it goes every month. The trend indicators are the diagnostics you need to pinpoint the problem. They are the dentition exams, perio probes, and radiographs of the business side of dentistry. Once you begin using them, like so many of dentists, you will be unable to live without them. Your staff, too, will gain a deeper understanding of their work and a sense of accomplishment from hitting or exceeding monthly goals. To all of you who have a vision of excellence that you want to achieve for your practices and dividends you want to enjoy from the investment you've made in your careers, get to know the numbers that make all the difference.

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Your Recall Program: Is It as Productive as It Could Be?

JEFFREY M. GOLDSTEIN, MBA

ABSTRACT A good recall system can improve the efficiency of any dental office. The majority of patients do not respond to the standard reminder postcard used in the passive recall system. An active prebooking system is far more productive. This article will outline an effective recall program and include discussion of implementation, verbal skills, and patient reactivation.

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One of the many concerns in a dental practice today is having an effective recall system. Many general practices do not utilize a recall system that is as efficient as it should be. Any recall system is only as good as the person responsible for its success, and that person must monitor it constantly and consistently for the repetitive system to be effective. This article will outline an effective recall program and include discussion of implementation, verbal skills, and patient reactivation.

For a patient to attach as much perceived importance to a recall system as possible, those implementing the system should avoid using the term “recall” for two reasons. First, the general perception among patients is that a “recall” appointment is not important: “After all, it’s only for a cleaning,” they may think. Second, the dental profession

needs to distance itself from the use of the word “recall” when advising patients of their need to return to the hygienist within a specific time because of the term’s negative associations. The dentist is not “recalling” the patient back into the practice to check whether the dentistry is defective and in need of replacement - like a car company “recalls” a tire.

Therefore, the creation of value and importance for that appointment in the minds of patients begins with finding a synonym for “recall.” Alternative phrases include “continuing care” (favored by the author), “preventive care,” or “recare.” Without the perception of value, patients will be more hesitant to schedule an appointment and will, more often than not, cancel or fail to appear. The importance of good verbal skills in helping to make a continuing care system ultimately successful will be more fully discussed later in this article.

The author has found, with few exceptions, that a “prebook” or “preschedule” continuing care system is most successful in the majority of practices. Jennifer de St. Georges, international lecturer and expert in the field of practice management, believes that prebooking hygiene is the most effective system. “Practices that are committed to prebooking hygiene in the correct manner will experience many benefits,” she said.¹

There can be, of course, drawbacks to prebooking patients. However, the advantages of that approach have been shown to far outweigh the disadvantages. As long as patients are in the schedule, they remain readily accessible. Much greater productivity ensues by maintaining patients in the appointment schedule and reappointing them, should the need arise, than to expend extra time and effort tracking them down later.

Specific inefficiencies are inherent in the passive recall system, i.e., mailing postcards to remind patients to schedule semi-annual prophylaxes. The rate of nonresponse tends to be high, and much valuable staff time may be used attempting to locate patients so that appointments can be scheduled. This practice is often unproductive and wasteful.

While a prescheduling system is superior, two big, though solvable, problems can detract from a successful implementation: poor control of the system and poor verbal skills. The front desk administrative staff is most often responsible for prescheduling. Without good organization and good verbal skills, patients will not respond well. Too often, the appointment coordinator attempts to schedule a patient for a three-month or six-month continuing care visit. If the patient declines, it is usually because the

appointment coordinator asked a closed-ended question: “Do you want to schedule your next visit?” A closed-ended question requires nothing more than a yes or no answer. Most frequently, the reaction to this kind of question is, “I don’t know my schedule that far in advance, so send me a postcard and I’ll call you.” That brings the patient back into the passive recall postcard system. To maintain control of the conversation and elicit a positive response, the coordinator should inform the patient what is going to be done. For example, “Mrs. Brown, I know that Patti, our hygienist, wants to see you in August. She can see you on Tuesday the 1st or Wednesday the 2nd. Which of these would be the most convenient for you?” Most people will not object to this approach. For those who do object to prebooking, the verbal script should be structured as follows:

Appointment coordinator: “I understand, Mrs. Brown. Don’t be concerned. We will mail a postcard to you three to four weeks prior to your scheduled appointment with the day, date, and time of your appointment. Should you find any problem, I will be happy to re-schedule your appointment for you.”

Roger Levin, DDS, MBA and president of the Levin Group, Inc., a national dental practice management consulting firm, agrees that prepared, rehearsed scripts are absolutely necessary when conversing with patients. “Moving a patient into a certain time-frame within the schedule is important. Create an image for the patient that conveys that you are doing him a favor. This requires advanced verbal skills, a pleasant personality, and a sincere desire to make everyone happy,” he said.² Levin suggested that words such as “certainly,” “my pleasure” and “no problem” are perceived as courteous and

helpful. As has been said before, excellent verbal skills are a must for the best communication. It is an important ability that helps practices grow.

The above script serves to allay any fears about making an appointment so far in advance, with the resultant objection by patients that they are being locked into something uncomfortable or inconvenient. It is also important to note that many appointment coordinators have in their own minds the idea that patients do not want to preschedule appointments. Their speech and actions reflect that thinking, which only helps to confirm the reason the prescheduling system is not working in a particular practice. It is also important as part of this prebooking system to complete a postcard with the day, date, and time of the appointment at the same time the appointment is scheduled. Those postcards should be filed in a “tickler” file by month and mailed out three to four weeks ahead of the scheduled appointments. Most software has the capability to send a personalized letter to the patient reconfirming the importance of visiting the office so the hygienist can check for any special areas of concern and the dentist can proceed with the periodic examination and oral cancer screening. This reminder gives continuing care patients ample time to reschedule their appointments if necessary and gives the appointment coordinator ample time to repair any openings in the schedule.

Along with the reminder cards or letters discussed above, a telephone call 24 hours prior to the appointment is often still necessary. There are additional ways to help ensure a successful prescheduling continuing care system. The dentist and/or hygienists should all be part of the prebooking team. In fact, the system will be most successful if the

dentist or hygienist is actively involved in motivating the patient to return for any needed treatment in addition to the prophylaxis. The front desk appointment coordinator can efficiently schedule the hygiene department without knowing the patient's condition; but one prophylaxis every 40 or 50 minutes, for example, is not necessarily the most efficient use of the hygienist's time. In many offices, the best way to enhance and control the hygiene schedule is for the hygienist to schedule the next appointment while the patient is still in the chair. The perceived value, as was discussed earlier, can be enhanced dramatically if the dentist and hygienists participate in the program. Therefore, it is strongly suggested that the dentist or hygienist create a "set-up" situation by giving patients reasons to return by telling them that they are expected to return during a specific month.

Further, it is highly recommended that one avoid the statement, "I'll see you in six months." The patient will be much more apt to remember the name of a specific month (e.g., September) rather than the number of months (i.e., return in six months). After a short time, the patient will likely not recall what the sixth month is unless the name of the month is used in the beginning. "I know I went to the dentist a few months ago, but I can't remember when"³

The point here is that scheduling the next hygiene visit should not be left up to the appointment coordinator alone. The dentist, dental hygienist and clinical assistant should be discussing the return visit before the continuing care patient arrives at the front desk. To illustrate further, if the patient has been seeing the dentist for a number of dental procedures and has now completed the treatment, the patient is ready to move

into maintenance. At the end of the last treatment appointment, it is important for the dentist to give the patient a reason to return to see the hygienist. The reason must be more than simply performing a prophylaxis. Therefore, upon dismissing the patient at the completion of the last treatment, the dentist creates a perception of value and importance in the mind of the patient by saying, for example, "Take care, Mrs. Brown, I'll see you at your continuing care appointment in August. I want to be sure that the tissue around the crown that I seated today remains healthy." The clinical assistant should reinforce this statement so the patient is not surprised when he or she reaches the front desk and the appointment coordinator schedules the next visit. In this way, perceived value has been created.

With the use of good organization and management and the use of the appropriate verbal skills, more patients will preschedule. Karen Greenhouse of Karen Greenhouse and Associates said prescheduling is vital for any dentist who has an existing preventive program in the practice. "If you understand the psychology of prescheduling patients, you will undoubtedly choose to preschedule. Most of your patients' lives are busy. Careers, jobs, family and other doctor's appointments dominate their calendars. If your office helps patients to preschedule, the patients will automatically work the rest of their lives and appointments around the already existing continuing care visit. Yes, sometimes that appointment needs to be changed. However, the name of their dentist remains in front of the patient for months before the visit. By prescheduling, you help the patients keep the priority of their dental care in their minds," she said.⁴ Remember, keeping control of the

conversation with the patient is a must for a successful appointment schedule.

As with any system, there are some drawbacks. One such drawback is that the hygiene schedule is filled far in advance. Hence, it is appropriate to reserve some appointment openings for new patients. If a practice sees an average of 25 new patients per month, one can assume that there will be approximately 25 prophylaxes or other dental therapies that need to be scheduled. Should the entire month be scheduled with patients who have been prebooked three to six months in advance, there will be no way to accommodate new patients. Accordingly, it is wise to reserve five spaces per week for new patients. As a rule of thumb, one should plan on filling the reserved slot (if it hasn't been filled) within 48 hours of that appointment time.

The second drawback to this program is that the dentist and hygienists must be well-organized so they can be sure that their personal schedules do not interfere with the patient appointment schedule. Therefore, vacations, personal days, continuing education courses and conventions must be planned far in advance. These days should be marked out on a year calendar, with this information being communicated to the appointment coordinator so that the schedule can be blocked out accordingly. If it is the dentist's philosophy, or the law in the area, that a hygienist cannot treat patients without the direct supervision of the dentist, everyone involved must plan ahead and be in agreement. Should the staff fail to do this, the practice may find a full day of hygiene patients scheduled with either the hygienist or the dentist absent. The front desk will be left with a dilemma.

Finally, it is important to revisit the issue of efficient systems. As mentioned

earlier in this article, a system is only as good as the person responsible for it. Therefore, it is vital that the practice have one individual who is responsible for the continuing care system's effectiveness and efficiency. Too often, this part of the practice is left to chance and/or more than one administrative individual. For any program to be effective, one person should be assigned and the program's effectiveness reviewed on a quarterly basis. It is also possible to employ an individual outside the staff to purge the current files so as to reactivate those patients who have failed to return, for whatever reason. It is not correct to assume that because a patient has not returned for a continuing care visit that he or she has left the practice for another dentist. There will be a number of patients who have chosen to seek care elsewhere; however, a large number of "inactive" charts are patients who have simply avoided an appointment and, with some coaxing, will return to the practice.

There is a misconception in many practices that the charts have been purged completely. Further investigation usually shows that there has been inadequate organization and preparation for a successful program. As in an effective continuing care program, there must be a plan and the patient must be given a reason (perceived value) to return. To illustrate this idea, if a patient is called and hears, "Mrs. Brown, it has been six months since you were in to have your teeth cleaned. Would you like to make an appointment?" she will probably not schedule a visit. Why? There was no perceived value conveyed nor was there any importance communicated. Why is having one's teeth cleaned important? Additionally, the question asked by the caller is a closed-ended question, as mentioned earlier. Instead, each patient's

chart should be pulled to find a reason for the patient to return to the practice.

There are two scheduling scripts provided in **FIGURE 1**. One is for the patient who has not been into the office for six months or less. The other is for the patient who has not been in for more than 12 months. If the patient has not been into the office for more than a year, scheduling him or her for an oral cancer screening, periodic examination, and a professional prophylaxis is less threatening and more appealing to the patient than trying to schedule a treatment appointment. **FIGURE 1** is included here for dentists to photocopy and use in their offices. The name of the person performing the audit and the date should be noted on the form.³

A recall program cannot be effective without organization, planning, good management, and good verbal skills. The most effective recall system is the prebooking system in which the patients of record are in the schedule, precluding the necessity of tracking them down if they do not respond to a reminder postcard. It is far easier and more effective to reschedule patients, if necessary, than to have to telephone and convince them to schedule hygiene visits. Experience shows that the majority of patients do not respond to the standard reminder card used in the passive recall system. Good verbal skills and the institution of a telephone audit/purge campaign will promote the continued growth of any dental practice.

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Getting to the Heart of the Matter

Robert E.
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If we were in charge of questioning a passel of Taliban we had captured in Afghanistan to discover why they had been so beastly, how would we go about it? Well, first of all, we'd stop referring to them as POWs. That is so demeaning, so un-Genevalike. Let's call them "detainees." That is ever so much nicer and in keeping with the image we are trying to project. If it works as well in this situation, there is no reason not to apply it to our other detainees in Leavenworth, San Quentin and Attica.

Secondly, Afghanistan is no place to have a nice relaxed discussion of motives and ideals. There is no comfortable place to sit in all that sand, and the lack of arboreal enhancement is not conducive to heart-to-heart chats leading to spill-your-guts admissions.

Let us board these al Qaeda people on huge C-141 jets and whisk them off 12,000 miles at taxpayers' expense to an idyllic destination like Guantanamo Bay, Cuba. There, under the civilizing atmosphere of lush tropical vegetation and the tongue-loosening effect of little umbrella-decorated libations, they are more likely to be amenable to sharing their plans and aspirations for altering our lifestyles.

Finally, we must review our usual choice of interrogators. Instead of the traditional brutish assembly of blue-jawed heavies rhythmically whacking a lead filled

sap against their palms while directing intense quartz lights into the eyes of the detainee, we need a radical change.

In place of some ridiculously scripted good cop/bad cop routine, the situation calls for something subtler if we wish to become confidants of our guests.

Clearly, it flouts all dictates of common sense not to utilize the talents of the best interrogators this country has to offer. We refer, of course, to women. Considering the Taliban attitude toward women, the presence of Western female interrogators would throw the detainees completely off their game. Without a Burka-clad coryphée to distract with a chance glimpse of ankle or wrist, the Taliban would be forced to face the natural genetic ability of women to get at the heart of the matter with dogged persistence. The most intractable detainee would be reduced to the consistency of jellied consume in no time at all. It's a gift.

For example, I say to my wife, "Mona called while you were gone and said that Francine had her baby. It's a boy."

"Is Francine OK?"

"I guess so. I forgot to ask."

"What time was he born?" asks my wife.

"She didn't say, or if she did, I don't remember."

"How much did the baby weigh?"

"I don't know."

“Well, how long was it?”

“How long was what?”

“The baby. What are they going to name him?”

“I haven’t the faintest idea. Mona didn’t tell me.”

“For crying out loud, why didn’t you ask her?”

“I dunno, it never occurred to me.”

By now she knows it’s hopeless to ask whether the baby is fair or dark, how much hair it has, who it looks like and how long Francine was in labor. I have upheld my obligation to respond like a typical male, and she has fulfilled her destiny as a caring sensitive female. We are not stereotypes, we are real human beings doing what we do best.

It is our proposal that the U.S. naval base at Guantanamo Bay fling open its gates to a courageous and determined coterie of women whose innate thoroughness and attention to detail would have the detainees singing like roller canaries in jig time. Remember, nothing is more flattering to a man than when an attractive woman asks the kinds of questions he is able to answer.