The days of putting in orders to OfficeMax for thousands of manila folders are coming to an end. Dental practices have inched toward going completely digital for years by adopting technology like intraoral cameras, digital radiography and CBCT. Many offices now use computerized practice management software for scheduling and treatment planning, which can be viewed on computer monitors stationed in each operatory. As digitization of practices becomes more widespread, more and more options are presented making "going paperless" attainable for every dental practice.

As you watch the stacks grow at the front desk, the many sources from which an office accumulates paper are made evident. Even with just a few new patients in the waiting area, the desk is littered with initial patient forms – health history, consent forms, copies of insurance cards. You might have five to 10 sheets of paper on a single patient before the patient even enters the operatory. Then set off to the side, there are charts containing all the treatment paperwork – treatment planning write-ups, X-rays and notes from various office visits. And in a basket designated for incoming mail you have insurance claims and treatment reports from specialists. All these documents are essential to treatment but do not necessarily need to be in paper form.

A Government Mandate for EHRs

Electronic health records (EHRs) help to improve the quality of care, efficiency and access, as well as safety and security. The Bush Administration Initiative, voted into action in 2004, requires streamlined electronic health records by 2014. With a national movement to make health records electronic, the American Dental Association (ADA) has jumped on board to advocate the process. Since EHR guidelines were developed with physicians in mind, rules are more open to interpretation for dental professionals, so the ADA has taken a stance on the forefront of decision making for EHRs for dentists.

There are many incentives to help dentists go paperless. The American Recovery and Reinvestment Act (ARRA) will invest $19.2 billion in health information technology. This money goes toward implementing universal infrastructure as well as offers monetary incentives through Medicare and Medicaid to doctors and dentists who implement the technology.

Chartless Versus Paperless

If you are giving patients paper to fill out when they come into your office and then scanning those documents into the computer after they complete them - you are “chartless.” Chartless is not paperless but it’s definitely a step in the paperless
A Word About Incentives

Dentists are eligible for various incentive programs, one of the largest of which is through Centers for Medicare and Medicaid. Dentists are eligible if 30 percent of their patient base is Medicaid patients. The dentists will need to report “meaningful use” of the technology, as defined by the Department of Health and Human Services (HHS). This requires the demonstration of 15 core objectives, as well as five additional menu-set objectives to equal 20 measures. There are also six objectives which must be met to demonstrate clinical quality. These specific objectives can be found at: http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf

Medicaid offers approximately $63,000 over six years, with a payment of $21,000 the first year, and $8,500 for subsequent years. In order to receive this amount, you must begin in January 2011. These numbers are approximately 85 percent of what it typically costs for an office to develop a digital records system. You must initiate by 2016 if you want to receive incentive payments. This incentive program ends in 2021.1 More information about EHR, as well as additional incentive programs can be found at www.healthit.hhs.gov.


The Benefits of Going Paperless

There are many benefits of adopting any level of digital technology into your office. Here are some of the main advantages:

Cost Effectiveness

The cost of going paperless varies considerably depending on what infrastructure is already in place, and how comprehensive the database. There are some large initial costs, like storage systems and software programs, but the return on investment (ROI) for going paperless is evident, particularly since incentive programs can offset the initial costs. ROI can be seen in decreased administrative work since there will be no more “pulling and filing.” You are no longer obligated to pay for the physical storage of charts or the means of securing them. By going paperless you are able to save on office supplies, including letterhead and postage.

Security and Legal

Between HIPAA and liability insurance, you are required to keep records and patients’ charts under lock and key. Computerized systems have timely and consistent back-ups. With electronic records, not only will you be storing records in a safe place for confidentiality sake but you will also remove the threat of having records vulnerable to natural disaster, fire, theft or vandalism.

Efficiency

With practice management software, your records are cleanly presented, always legible and always complete. Worries about misfiling or misplacing papers completely subside, since all files are indexed with name, date and time. You have the ability to streamline accounts receivable, appointments including patient confirmations and reminders, progress notes, insurance claims, specialists’ correspondence and radiographs all in one location.

Accessibility

By going paperless, you will never need to bear the consequences or the worry of a lost or damaged chart again. Not only do you have constant-backup but you can access your files from anywhere. You decide who gets viewing and editing privileges and you determine from where you can access files. Some dentists might only want accessibility in-office; others might appreciate having all the information continued on page 102

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## Paperless Features of Practice Management Software

<table>
<thead>
<tr>
<th>Feature</th>
<th>Dentrix by Henry Schein</th>
<th>Easy Dental by Henry Schein</th>
<th>ABDLent by ABELSoft Corp.</th>
<th>Denteч by Softech</th>
<th>DentiMax</th>
<th>Open Dental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive Patient Forms Directly from Web site</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, via third party</td>
<td>Yes</td>
</tr>
<tr>
<td>Direct Import of Documents from Attached Scanner</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Attach Documents Directly to Outgoing E-mail</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Electronic Signature Capture on Documents</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>E-mail and Text Message Appointment Reminders</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, Yes (e-mail)</td>
<td></td>
</tr>
<tr>
<td>Lab Case Tracking</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Offsite Backup Service</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Smartphone Access to Office Data</td>
<td>Yes</td>
<td>No</td>
<td>Yes (in upcoming version)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Insurance Estimates, Tracking and Claims Processing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Digital Radiograph Integrated</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (bridge)</td>
</tr>
<tr>
<td>Other Unique Features</td>
<td>Patients can enter information using a kiosk</td>
<td>Voice Activated Perio Charting</td>
<td>Integrated credit card processing, automatic e-mail appointment reminders, custom report writer.</td>
<td>Third-party products available for: Text messaging, backup, and iPhone app.</td>
<td></td>
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</tr>
</tbody>
</table>

*This is not a comprehensive listing of practice management softwares.*
<table>
<thead>
<tr>
<th>MOGO</th>
<th>Planet DDS (Cloud-based)</th>
<th>MacPractice</th>
<th>PracticeWorks by Carestream Dental</th>
<th>Eaglesoft by Patterson</th>
<th>SoftDent by Carestream Dental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (in beta)</td>
<td>No</td>
<td>Yes (in beta)</td>
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<td>Yes</td>
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<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes (via Kiosk)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (via third-parties)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes (automatic and included)</td>
<td>Yes (via third-parties)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes (included)</td>
<td>Yes (iPhone and iPad interfaces, as well as remote access)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>E-mail statements, online payments, and online appointment scheduling, automated integration with explanation of benefits.</td>
<td>E-mail statements, online payments, and online appointment scheduling, automated integration with explanation of benefits.</td>
<td>Option to create custom patient forms, send referrals, create treatment plan CD to send home with patient, remote access</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
accessible from their smart phone. You can adjust settings so employees can add new files but only admin can delete or move the files. This prevents accidental deletions or intentional sabotage by a malicious employee. Practice management software and storage systems work together to provide the level of accessibility desired by the dentist.

Convenience for Patients

As demonstrated by the use of the Internet and the movement of social media throughout the last few years, patients use technology every day. Moms and children alike have cell phones. Families get e-mail and pay bills online. Why should these avenues be treated differently in your office? Many practice management software programs allow you to send appointment confirmations via text message or six-month recare reminders through e-mail. Programs will even allow patients to make account payments online. By using a method of communication convenient for patients, you are retaining these patients.

The Steps to Going Paperless

With tips from the ADA and from dentists who have already gone paperless, we’ve put together a series of steps to implement a system in your office.

What is Your Motivation?

Determine your motivation for wanting to go paperless. Whether you’re motivated by the ability to make your office more efficient, streamlined and cost-effective, by going green to save the environment, or by the available financial incentives, choose what is most important to you and adopt the paperless practices most likely to help you achieve that goal.

Make a Commitment

One of the first steps in going paperless is making the commitment. Although there is a specific destination in mind, going paperless entails quite a journey. Create a timeline with short-term goals and be the visionary for your office throughout the process. You must have both feet on board if you want your staff to take ownership of the commitment as well.

Find a Software Program

You most likely already have a practice management software program in your office. The chart on pages 102-103 lists the paperless features your software already has. If you don’t already have one there are dozens of practice management software programs. Evaluating what types of documents you have, how you want to organize those documents and assessing access privileges (who, what and where) will give insight to narrow down the options.

Ensure Proper Equipment

Before you get started you need to make sure you have the proper foundation for digitizing such a vast amount of information. Some practice management software programs require in-house storage, while some store all the information online.

How Paperless is Your Office? by David Arnett

The Basic Paperless Office (BPO)

Any office that has a single front desk computer to generate claims, schedule appointments and perform basic practice management functions could be considered “on its way” to paperless. However, if you are only using the computer for those tasks, you are missing out. BPOs use computers at the front desk for claims and appointments and in the operatories to create treatment plans, clinical notes and take perio measurements. Front- and back-office computers are often networked to provide seamless workflow.

The Intermediate Paperless Office (IPO)

The intermediate paperless office not only uses computers in its operatories, but has introduced additional time-saving paperless tools into its workflow. These tools include major items like digital radiography and digital documents, as well as minor software tools like integrated credit card processing and employee time tracking.

Digital radiography is perhaps the easiest way to illustrate the impact of “paperless technology” on an office. Not only are you saving time by not waiting for film to develop, but you also have a better opportunity to get clear pictures and there are no chemical developing solutions or casting paper.

An IPO will usually adopt some type of digital document software. This kind of software allows you to organize, capture and store patient insurance cards, driver’s licenses, financial forms, privacy and patient release forms and printed documents. Things like patient release forms can be captured electronically and signed electronically.

The Advanced Paperless Office (APO)

For most start-up dentists, starting an advanced paperless office from the beginning is often the most appealing route. However, for those who already have established offices, sometimes the change to the APO is hard (but not impossible) to implement.

These offices have all of the above technologies (BPO and IPO) and also include technologies like patient messaging software, Internet patient enrollment, and interoffice communication software. They utilize e-mail and text messaging for patient reminders and to confirm appointments.

Patients are able to complete much of their “paperwork” on the practice’s Web site before coming in for their appointment. The Web site is linked to the practice management software, funneling the information patient’s fill out directly into the office computer system.

Some filled-to-capacity offices have interoffice communication software so hygienists, assistants and dentists are always in communications with each other.

Author’s Bio

David J. Arnett received his business degree from Brigham Young University and his MBA from University of Phoenix. He has owned and operated several dental offices and is the co-founder of DentiMax. He can be reached at david@dentimax.com.
Find out what type of storage you need, for both long-term archived files, and short-term accessible files, and get it in place before you begin. You will also need a durable scanner, able to handle the inundation of documents from your current paper files.

**Train and Be Trained**

For those who do not have a practice management software program in your practice, adopting new software is not intuitive, especially if you are weaning yourself and your staff off paper files. Not only is it not intuitive, but most offices will express resistance to the change. In order to fully embrace going paperless and to utilize a practice management system, you might need to enlist the help of an expert. Even if you already have a software program, schedule a trainer to come in and teach your staff about the features you are not currently using. In this case, knowledge is power. By learning what your practice management software can do, you have a better chance of utilizing it to its full potential.

**Develop Rules for Consistency**

Determine rules to avoid inconsistency in data entry, migration, purging and destruction of paper files. By keeping everyone accountable to the same set of rules, you are helping your office avoid mistakes, misfiled and misplaced documents, and ensuring security of documents. Who can access and edit the files? How will you ensure timely migration? How will you store information in the long-term? By determining your answers to these questions beforehand you are eliminating the risk of inconsistency and making certain all your information is indexed for easy and secure searching throughout the system.

**Be Patient**

Going from an office full of paper files to a paperless, digital office does not happen overnight. In fact, it can take anywhere from 12 to 18 months and it’s easy to get bogged down with the stacks of paperwork needing to be converted to an electronic system. Keep staff up to date with the progress and celebrate when your office reaches one of your short-term goals. Entering years’ worth of charts can be tedious, but it can also be rewarding when staff see visible results. Digitally input new patients first. Then convert charts as patients come in for their visits. You’ll never need to waste your time scanning in data for old patients who don’t return. And eventually their paper files can be discarded. Verify rules for destruction of inactive charts with local area officials.

**Encourage Others - Patients, Insurance Companies and Specialists**

Even if you have a digital system for logging paperwork in your office, you will always have a growing stack of papers on your front desk unless you encourage those you work with to go paperless as well. Many practice management software programs incorporate correspondence with insurance companies and specialists. Ask the specialists you work with on a regular basis to send you their treatment reports via e-mail instead of by postal mail. Also, make patient forms available online and encourage patients to fill them out prior to their appointment. This process not only helps efficiency but is also one more step toward paper-free.

You might not be ready to go completely paperless, but since there are so many ways to drive your office in that direction, we encourage you to adopt digital, however extensively, at your own pace. Continue to be forward thinking, utilize the hundreds of resources available to you, and work toward the goal. It is within your grasp.

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Check Out These Paperless Products

Apixia PSP Scanner
This Phosphor Plate Scanner, made by Apixia Digital Imaging, offers doctors the convenience of in-operatory acquisition of digital X-rays. The scanner, which is no bigger than a standard coffee maker, includes easy-to-use imaging software and optionally integrates with all leading brands of practice management software. It’s a great way to convert your film X-rays to a paperless system. Apixia products are sold factory-direct. For more information, visit Apixia at www.apixia.com.

Smile Reminder
Smile Reminder is a practice-to-patient communication service designed to maintain and retain existing patients while identifying and acquiring new patients. Utilizing the latest automated text and e-mail messaging technologies and social media tools, Smile Reminder helps you to increase productivity and grow your practice, while you focus on your patients. These reminders eliminate the need for appointment confirmation phone calls and recall postcards. For more information visit www.smilereminder.com or call 866-605-6867.

DentalSharing
DentalSharing.com provides the dental community with a simple, Web-based service to securely share, manage and store digital images and related documents in full compliance with HIPAA requirements. The service does not require any incremental hardware or software investment and retains the full resolution of original X-ray images. DentalSharing.com is compatible with all practice imaging management systems. Subscribers may also send and receive comments related to the shared images. For more information visit www.dentalsharing.com.

ePadLink
ePad Vision is a state-of-the-art electronic signature device from ePadLink. It features a stunning full-color hi-res LCD screen that displays the user’s signature in real time as well as interactive text and graphics. The display images can be uploaded to the device and controlled from an easy-to-use graphical user interface. ePad Vision is also bundled at no extra charge with IntegriSign Desktop software, which allows users to add electronic signatures directly into MS Office and Adobe PDF documents. Visit www.epadlink.com.

VIDAR’s Dental Film Digitizer
Ideal for offices that are already using digital intraoral imaging but have not yet made the conversion with their panoramic and cephalometric imaging equipment. This machine allows dentists to create quality digital images from analog dental film for primary diagnostic use. It connects to a computer with a USB cable and uses a simple TWAIN interface. It also meets all U.S. and European guidelines. For more information visit www.vidar.com or call 703-925-2371.
One Dentist’s Journey with Technology

or: How I Learned to Love My Computers and Put Down the Sledgehammer

by Edward J. Zuckerberg, DDS, FAGD

I recently received an urgent midday call from my wife to find out if I would run down to our local physician's office to get my flu shot (my wife is slightly health obsessed – she carries a bottle of Purell with her wherever she goes).

“Theres only one other person here waiting and they just got their supply in,” she exclaimed. So I joined her, and even though 30-plus years of patients breathing in my face has given me almost Superman-like immunity, I surrendered my arm for the vaccination.

What I noticed most about the visit were the charts the assistant carried into the treatment room. We have been patients at this practice for 20 years and our charts were as thick as New York City's Yellow Pages. My wife commented on the assistant’s biceps from having to carry those charts around all day, but all I could think about was the nightmare of storing and accessing all the information in the limited storage space I had in my own office, not to mention all the trees sacrificed for the sake of keeping medical records.

Then I smiled, because five years ago I enacted a plan to digitize my office files, and thanks to my chairside assistant, Kim, who has spent the better part of her office downtime for the last several years scanning old charts and X-rays, the paper beast is no longer a problem for us. I dealt with this issue, as well as others in my dental practice, by embracing technology, and although there has been aggravation at times (e.g., “Dr. Z, the computer crashed and I have no access to the appointment scheduler!”), technology has been a terrific friend to me, an extremely counter-productive to me to have several staff members answering the phones to make appointments when there was only one appointment book. The book was constantly being moved around and, “Who’s got the book?” was a familiar cry in the office. I urged Jeff to look into online scheduling and he came through. The staff was extremely resistant as you would expect. Of course they quickly adapted to the search features which enabled them to do things more efficiently. Even better, the “appointment book” was now in every room of the office at the same time. Within a short time they laughed at their reticence in giving up the book and agreed the computer was indeed a good friend.

Utilizing technology demands careful planning, budgeting and the ability to foresee which technologies make sense to deploy for an individual situation and which ones are better left for others. I think digitization of patient charts is the granddaddy of technology in the dental office, requiring a reasonable level of experience with computers (or a readily accessible tech geek), but it can prove to be one of the most satisfying and efficient deployments of technology to date.

My journey began in 1984, just five years into private dental practice. I had almost no computer experience, except for the Atari 800 personal computer which I purchased a year or two earlier. I taught myself some basic programming and played around with online banking with a 300 baud modem and a green monitor. Paying a handful of bills online back then took about an hour, but I envisioned the computer being a useful tool in the future and felt it was a time investment that would be worthwhile.

When the IBM product center opened in my town in 1984, they advertised a turnkey system for dentists for under $10,000, and I jumped in headfirst and immediately put to use my first office computer. Mind you, the ORD-Systems software package - which was half the investment – was awful. The last straw came a year and a half into using the system when it locked up on a weekend when we entered our thousandth patient.

Other systems were hitting the market as well as new computers that were two to three times faster than my PC-XT with 512K ram and 10MB hard drive. One that caught my eye was Three Star Dental by Dr. Jeffrey Tiefer. I liked that he was a dentist and he offered the full version of the system for a free trial with a purchase price of $1,000 if I liked it after evaluation. The software was a big hit. I’m happy to say that 25 years later, I still use Jeff’s software, now Diamond Dental Systems (and yes, he has been there for me on weekends when I have needed support).

In 1995, I wired my home office and my three-operatory practice, for networking and added PCs to the operatories. This gave me a problem-solving tool I never had before. It seemed extremely counter-productive to me to have several staff members answering the phones to make appointments when there was only one appointment book. The book was constantly being moved around and, “Who’s got the book?” was a familiar cry in the office. I urged Jeff to look into online scheduling and he came through. The staff was extremely resistant as you would expect. Of course they quickly adapted to the search features which enabled them to do things more efficiently. Even better, the “appointment book” was now in every room of the office at the same time. Within a short time they laughed at their reticence in giving up the book and agreed the computer was indeed a good friend.

My next biggest technological embrace was the conversion to digital radiography. I hated waiting five minutes for the peri-pro and another few for the assistant to mount the X-rays, and presenting a treatment plan to the patient with tiny films on a view-box. Let’s not mention the cost of film, chemicals, cleaning bills and new uniforms for staff whose clothes were ruined by fixer, and the wasted time that could be used more productively. Although many of my colleagues refuted dropping
folders and within each patient's folder are subfolders for things like main patient charts folder and 26 subfolders for each letter of the alphabet, photos, and printed X-rays. We have a simple folder system with a single sheet or stack of sheets into PDF or JPEG files for photos and X-rays. They take up very little room and do a great job of converting our analog records to digital. We have two of these babies in our administration areas.

Over the years, my patients have looked up to me as a technological "Inspector Gadget," but they appreciate the technologies I have embraced because they think are most practical and that will make my life easier and my patients more comfortable. Along those lines, we added D4D Technologies' CAD/CAM system, E4D Dentist, last year. The ability to deliver same-day restorations is something any dentist would drool over, but most consider to be too pricey an investment for their practice. A closer look reveals that using the Section 179 tax credit and putting the machine into service in December makes this toy wonderfully affordable. I saved almost $50,000 on my 2009 tax bill without laying out a cent until June 2010 and the savings in my lab bill easily offsets the monthly lease payment. Let's again not forget the "wow" factor! Even patients who don't need a crown get to see one being made and the virtues of the system are displayed on the 42-inch plasma in the waiting room while they wait.

When it came to digitizing the patient charts in 2005, it was less about "wow" and more about "how," although the "wow" was certainly not lost. Rather than having a new technology thrown in my face and evaluating its worthiness for my office, digitizing charts was different. I recognized a problem for which there was no easy technological advance to solve. I looked at each item in the patients' hard chart and each had its own challenges for the conversion. Although we had been taking digital radiographs almost exclusively since the late 90s, we had many patients of record from the 80s and records from previous dentists were almost always film. It took a lot of research to find a scanner with a large enough scan area to handle scans of full series or panoramics in one pass. The M irocet Scanmaker 9800 XL was up to the task and has scanned thousands of X-rays for us over the last five years without once going out of service. We still put it to use when patient records come over from other dentists that are on film.

For paper scans we use Canon's D R-2010C sheet-fed scanner. We have two of these babies in our administration areas. They take up very little room and do a great job of converting single sheets or stacks of sheets into PDF or JPEG files for photos and printed X-rays. We have a simple folder system with a main patient charts folder and 26 subfolders for each letter of the alphabet. Within the subfolders our patients have their own folders and within each patient's folder are subfolders for things with multiple entries like explanations of benefits, referral notes, scanned X-rays, photos, insurance benefit information, medical history forms, perio charts, etc. Folder privileges are set so that employees can add patients and folders but only a few, myself included, can delete or move a file.

An external raid-compliant backup drive attached to the server updates every hour to constantly back up office data in the event of a power outage or server failure. Daily incremental backups are automatically uploaded online using Amazon's S3 online storage system at about $20 per month. In the event of a local catastrophe, records are always retrievable from an offsite location.

New patients now complete their medical history and information forms on our Web site and submit them to us electronically via e-mail. We then use a PDF-creating virtual printer like CutePDF to electronically save their files to their respective digital charts.

You don't have to lose the paper all at once. Start slowly with new patients at first. Most practice management software systems now accommodate treatment notes. Buy the sheet-fed scanner first and stop creating new patient charts tomorrow. After a short while you will realize the benefits and start converting your old charts one by one as patients come in for their visits. Non-returnees don't get scanned and eventually their charts get discarded after seven years. Benefits include smaller storage requirements for charts; never "losing" a chart again; quickly finding one item you are looking for in the chart without shuffling through pages; easy transferability of patient charts to other dentists, specialists and insurance companies; and of course, the "wow" factor!

I'd be remiss if I didn't admit that there were times that it was a good thing there wasn't a sledgehammer around. My wife has had to put up with my bad mood on plenty of occasions when the technology didn't perform as it was supposed to. All in all, my journey with technology in the dental office has allowed me to be more productive, have more fun in the office, and attract and maintain a patient base with confidence in their practitioner. It has helped me arrive at a stable solution to the difficult issue of record-keeping that is becoming ever more of a challenge for dentists both today and going forward in the digital age.

Author's Bio

Dr. Edward Zuckerberg graduated from NYU College of Dentistry in 1978 and received his FAGD in 1984. He has been in private practice for 31 years, the last 29 in Dobbs Ferry, New York. An early technology adopter, Dr. Zuckerberg's office has been computerized since 1984, employed digital radiography since 1997 and has been paperless since 2005. He and his wife, Karen, have four children, and their son Mark Zuckerberg is the founder and CEO of Facebook, Inc. Dr. Zuckerberg can be contacted at painless.drz@verizon.net or on his Facebook page at www.facebook.com/painlessdrz
As our name implies, our practice is a family affair. Libbey Family Dentistry in Forest, Virginia, is a husband-and-wife team (Drs. Chris and Annie Libbey) complemented by a part-time associate dentist, three hygienists, two chairside assistants, one sterilization technician and two administrative team members.

We provide comprehensive dental treatment to patients ranging in age from one to 100. This treatment includes preventive, pediatric, cosmetic, general and periodontal services. On average, we see about 200 patients per week, making sure that each is offered information about their dental care. We often explain the links between oral and systemic health, and frequently work in conjunction with our patients’ physicians.

Because we’re concerned with our patients’ overall health and education, we’ve actually turned our sterilization center into an instructional tool by positioning it in the center of our practice. That way, we can describe our sterilization process and discuss how it prevents potential infection from the wide variety of microorganisms found in blood and saliva. In addition, our patients can easily see our commitment to infection control.

Limited Infrastructure for Technology

In 2005, after completing an Advanced Education in General Dentistry Residency program, we moved to Lynchburg, Virginia, to transition into the practice of a retiring dentist, Dr. William P. Lea. At age 74, after a distinguished 43-year-long career, our mentor was held in high regard by his clients and the community. Lea graciously turned over his patient list and helped us get to know them, clinically and personally. However, technology was not a high priority in the office we inherited.

Limited by the existing infrastructure—a DOS-based medical records system and no Internet access—our practice was forced to communicate with payers and process insurance claims by snail-mail and telephone. As you might expect, reimbursement turnaround time was slow.

It could take four to eight weeks to hear back from an insurance company just for a predetermination. Then there were telephone calls—and usually follow-up calls—to our patients to inform them of their payment picture for a specific treatment. There was no sense of urgency to the process, and by the time we relayed coverage and eligibility information, clients would sometimes decide to forego treatment if they perceived the out-of-pocket expense as too high.

Claims management and payment was just as slow and frustrating. After calling payers to check eligibility and benefits details and submitting paper-based claims, we would sometimes wait up to two months to fully close out a claim and collect payment from the patient and the insurer.

All these paper-based processes carried associated costs of printing and postage, not to mention the expense of staff time spent conducting multiple phone calls with payers and patients, printing statements, and stuffing them into envelopes. In terms of our bottom line, these processes were negatively affecting cash flow and stretching out payment cycles.

But it wasn’t just the fiscal cost that bothered us—most importantly it was the cost to patient care. In addition to the overhead involved, these time-consuming, manual tasks limited our ability to focus on improving patient care and building patient relationships.

In Search of a Better Way

Over the years, we steadily updated our dental records system and adopted emerging technologies such as digital radiography, gradually taking the steps we needed to modernize our practice.
We realized the next level was to automate benefits, eligibility and claims transactions with payers, but in 2008 we lacked the space and infrastructure to do so. As the practice grew, we made the decision to build and relocate to a facility in Forest, Virginia, which would include six operatories (with room to expand to nine), a sterilization area, three checkout areas up front and much needed storage space.

In January 2009, we moved into the new office, complete with high-speed Internet access, computers at every desk and operatory, digital progress notes and our state-of-the-art sterilization center. Our goal of a paperless practice was now within reach, and the time was right to transform front- and back-office processes with automation and real-time payer communications.

Although half of all dental practices still rely on “tried-and-true” paper-based claims processing, industry statistics show a trend toward automating these processes and implementing real-time communications with payers. Automation and real-time transaction processes take the guesswork and hassle out of insurance and also help dental offices cultivate a loyal, satisfied patient base by:

- Delivering a seamless and efficient patient experience;
- Providing patients with their exact financial responsibility while still in the office and eliminating the need for a subsequent patient statement;
- Assisting patients in understanding their benefits during an appointment so they can easily ask questions and address concerns; and
- Offering a more complete treatment planning consultation by submitting a predetermination and receiving benefits details in real time.

With these benefits in mind, and knowing the technology would help us accelerate cash flow and minimize claim rejections caused by manual errors, we decided to implement technology which would facilitate automated eligibility, adjudication and reconciliation processes. The

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issue then became which system to implement. After talking with other dentists, we learned about M D E real-time, Web-based insurance information solutions. Several colleagues were already using the system and were enthusiastic about its ability to access insurance benefits, eligibility verification and predeterminations in a single mouse-click.

Based on these recommendations, and after research of some other vendors conducted by our office manager at the time, we selected Mercury Data Exchange (M D E). By February 2009, it was fully operational in our new office. Because the system is Internet-based, it required no software or hardware purchase or installation.

After just a few short months, we started realizing significant back-office benefits, including a 20 to 30 percent weekly reduction in paper expense and about $200 savings each week in postage costs.

Because electronically submitted claims are far less likely to have errors, our rejection rates also dropped dramatically, and are now more in line with the industry average of two percent. Moreover, those claims, which are rejected can be corrected and sent back to the payer within the same business day for reconciliation, further minimizing payment delays. As opposed to waiting up to two months for payment with paper processing, we are now collecting insurer payment on clean claims in as little as two weeks.

Goodbye, “Sticker Shock”

As difficult as paper processes were on our business, they were literally hurting our patients suffering with unresolved caries, abscesses and other painful conditions as they waited for responses from their insurance companies about treatment coverage.

Real-time predeterminations and pre-estimations, where additional documentation is required, have changed that. With on-the-spot insight into benefits, we no longer face-to-face with our patients. It allows us to truly “inform before we perform” and helps to eliminate the dreaded “sticker shock” about costs. We can also educate patients about their insurance coverage and answer questions about clinical and financial issues. In general, we have found patients are more likely to accept the care we recommend - and pay for it in a timely fashion - when the treatment and financial conversations are held concurrently and backed up by X-rays and other documents.

Another benefit is our ability to schedule appointments to coincide with pay periods, or structure payment plans tailored to patient needs. Sometimes we can help them secure a third-party credit card, which automatically pays us on time and allows them a three-, six- or 12-month payment period. These services along with M D E help us collect payments faster and prevent missed appointments - and subsequent lost revenue - for fear of resulting costs. We can even use the real-time predetermination to find out when the next X-ray will be covered based on patient history.

Our patients love knowing on the spot how much insurance will pay and how much their co-pay will be for a given treatment. We can also help them avoid surprise dental bills that arrive months after treatment. When they know about their out-of-pocket costs in advance and can plan for them, they're approximately 80 percent more likely to pay - sometimes even before treatment begins.

A Practice Transformed

Between the move to our new facility in Forest and the adoption of real-time, Web-based EDI transaction solutions, our practice has been transformed. The new facility has plenty of room for our growing patient population, and with real-time transaction processing technology, we can deliver the responsive, patient-oriented care that keeps our chairs filled.

As an office, we're presenting a more professional, modern image. In the back office, our administrative staff no longer spend hours on the phone with payers or searching through payer Web sites. They're now free to sit down with patients, explain the financial options available for recommended treatment plans and ensure more effective care. As a business, we've streamlined communications with payers and patients, maximized our cash flow, reduced administrative expenses, eliminated time-consuming manual processes and shortened payment cycles.

Perhaps the most important benefit is our ability to provide patients with the care and information they need to maintain their dental health. As dentists, we have more time to spend with patients and focus on their treatment because we're no longer dealing with the hassles and headaches of paper-based insurance eligibility, benefits and payments.

Author Bios

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