Over the last three decades, dental offices have incrementally replaced components of their manual practice-management systems with computer-based paperless systems. This means that one-write pegboard-style billing systems, ledger cards, written insurance forms and paper appointment books have, thankfully, become relics of the past in most offices. Unfortunately, a large gap often remains between the current state of electronic-practice management in an office, and what is truly possible and desirable. Usually, the barrier to a fully paperless practice is the exclusion of the electronic clinical chart. It’s an omission every dental office should strive to remedy.

What Does Fully Paperless Mean?

In a paperless office, all information and documents, and the systems to manage them, are stored electronically on a computer network and managed by one or more software systems. Administrative, financial and treatment data are typically stored and managed by a dental-practice management system. Diagnostic information can be captured by any of several types of digital radiography systems, intra-oral cameras or digital cameras available on the market.

Regardless of the source, images are managed and modified by imaging software, which can often be integrated with practice-management systems to eliminate duplication of patient data entry and cumbersome switching between programs. For example, by way of a software bridge supplied by the vendor, one entry can populate the corresponding demographic field in both software systems. Conversely, the bridge can seamlessly link the user to the relevant files located in each program for the desired patient. Clinical information can be viewed graphically in the form of an odontogram, in the more comprehensive practice-management systems on the market. Some systems allow incoming paper, such as health forms, referral letters, faxes etc., to be scanned and stored within a relevant patient file. In summary, the paperless-office environment converts analog or paper documents and manual systems into digital form, or accommodates the storage of digital information that can’t be imported into a manual system.

The Benefits of a Paperless Practice

- **Patient Record Integration** — Perhaps the greatest benefit of the truly paperless office is the opportunity to use administrative, treatment, diagnostic and clinical information in concert, to provide optimal treatment outcomes for patients, enhance workflow and improve communication. Electronic systems inherently create synergies not easily obtained using disparate manual and paper-based systems.
- **Management Support** — Electronic systems are designed not only to provide easy access to discrete patient information, but also to compile and present collective information in the interest of reporting, trend-watching and forecasting.
- **Labour Savings** — Pulling, organizing and refiling patient charts is a significant administrative task that adds no value to the practice or patient. With electronic systems, information is available, when needed, at the click of a button.
- **Accessibility** — Data stored in electronic systems is available at any place on the network, usually simultaneously, and can usually be accessed from outside the office, allowing for greatly enhanced workflow and timely decision-making. Digital charts are not as easily misplaced as paper charts.
- **More Complete and Legible Records** — Typed information, or information selected from choices...
made available by software systems, promotes more thorough record-keeping without the investment of extra time. Legible electronic records can result in better communication, better treatment outcomes, and information integrity through enforced data-entry protocols of the software.

- **Space Savings** — The typical dental office uses valuable space to store thousands of patient charts in files. Electronic systems free up that space for more productive use.

- **Supply Savings** — Eliminating paper charts and X-ray film and not having to print forms and photos, can save thousands of dollars per year.

- **Increased Security** — Portable electronic data, or data copied off-site on a regular basis, protects a practice against a catastrophic event, since data can be completely restored to a new system.

- **Longer-lasting Records** — Electronic charts are protected from wear and tear.

- **Automatic Signatures** — Electronic charting systems can automatically name, date, and time-stamp entries, which adds validity to notes and helps clarify potential misunderstandings.

- **Easy reproduction** — You can easily duplicate records, including X-rays and photos, by printing out the information or transmitting it electronically to others.

- **Dynamic records for treatment progress and planning** — With electronic charting, a new and separate cumulative historical chart is created with each patient visit. Conversely, paper charts only represent current conditions, and do not display treatment history over time. Electronic charting can also allow for easier management and more effective presentation of multiple-treatment plan options.

**Why Some Dentists are Reluctant to Convert to Paperless**

As compelling as the benefits of converting to a paperless practice seem, there are obstacles that have prevented many offices from making the full transition.

1) One obstacle is the uncertainty many offices have concerning the legal and professional implications. Simply put, electronic records must comply with all requirements of traditional paper records, as outlined in the RCDSO Guidelines for Dental Record Keeping. Additionally, an audit trail is necessary so that the authenticity and integrity of the records can be verified by any party who has an interest or requirement to do so. The leading dental-software systems, when used as prescribed, meet those standards, so there should no longer be concerns about the legality of electronic dental records.

2) Another hindrance to moving to a paperless practice is the perception that you will require a large investment to purchase additional computer hardware, software, peripherals and training. However, for many practices, all or part of the network and system required to support a paperless practice is already in place.

If you’re concerned about the costs for digital radiography, there are effective transitional stages that don’t eliminate the need for film, but can achieve at least some of the benefits of digital X-ray technology. For example, inexpensive scanners, customized for the dental office, convert traditional analogue X-ray images into digital images for quick import into practice-management or imaging software.

Even if you require a complete system replacement, the return on your investment will typically justify the outcome, versus continuing to use a paper system.

3) Perhaps the most common objection is that it is too labourious to convert paper files into electronic records. New practices have the unique opportunity to start with a clean slate, thereby eliminating the need to ever convert from paper. Existing practices with extensive paper-chart histories can make the transition to paperless charting, by electronically charting existing conditions of scheduled patients and entering new records once patients arrive for treatment. (Charting of existing conditions does not mean recreating previous treatment history date by date, but rather creating a simple record of existing conditions at the time of entry.)

It is possible to scan and store past progress notes and other information, such as medical histories, from a paper chart into a patient’s record, if the practice-management software supports document management. You can move paper charts into storage once electronic versions are created. Within a year, most active patients will have electronic charts; you can add inactive patients as they become reactivated. Eventually, you will be able to move the remaining paper charts into storage off site.

**Conclusion**

The benefits of going paperless are so evident, it is only a matter of time before the paperless dental office becomes as mainstream as the computerized office is today. Improved technology and increased access to implementation assistance, (meaning that companies will provide better service because vendors have accumulated over time, more experience with implementation) will make it easier for offices to become paperless and to compete in an increasingly technology-enhanced dental landscape.

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