

ATTAINING THE FULLY PAPERLESS OFFICE

A Guide for Holdouts

Over the last several decades, dental offices have incrementally replaced components of their manual practice management systems with computer-based paperless systems. This means that one-write billing systems, ledger cards, written insurance forms and paper appointment books have, thankfully, become relics of the past in most offices. The final barrier to becoming fully paperless is the reluctance to use an electronic clinical chart. In many cases, this can simply be attributed to misconceptions and lack of awareness of the benefits, both of which will be addressed here.

What Does *Fully Paperless* Mean?

In a paperless office, all information and systems are stored electronically on a computer network and managed by one or more software applications. 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 in some cases is a built-in function of the practice management software. Alternatively, third party imaging software can often be integrated with practice management systems to eliminate duplication of patient data entry and cumbersome switching between programs.

Most practice management systems now also offer the ability to collect and view clinical information in the form of an electronic odontogram, effectively replacing paper charts. In addition, it's fairly standard for systems to accept scans of incoming paper, such as health forms, referral letters, faxes etc., so they can be stored within the relevant patient file for future reference.

A more recent development to

reduce paper and increase efficiencies in the dental office is the use of automated patient communication – either as a function of the practice management software or from a third-party application. Messages such as appointment reminders, confirmation requests and outstanding treatment notices can be sent in selected batches via text or email for patients to respond to electronically. Once that patient responds, the appropriate files are automatically updated providing tremendous administrative time savings and significantly reducing the need for paper appointment notices or phone calls.

In summary, in a paperless office environment, documents are converted so that they may be stored digitally and manual tasks typically required when using paper based systems are reduced or eliminated.

Transitioning to Fully Paperless for Increased Productivity and Savings

Patient Record Integration – The greatest benefit of the truly paperless office is due to administrative, treatment, diagnostic and clinical information working in concert to enable optimal treatment outcomes for patients, enhanced workflows and improved communication. Electronic systems inherently create synergies not easily obtained using separate 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 that contributes to informed decision making.



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Accessibility – Data stored in electronic systems is available at any place on the network and can usually be accessed from outside the office, allowing for greater convenience 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 data pick lists promotes more thorough and legible recordkeeping without the investment of extra time. The result is improved communication, better treatment outcomes, and information integrity through enforced data-entry protocols of the dental software.

Labour Savings – Pulling, organizing and refileing 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.

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

Space Savings – Valuable space is required when storing thousands of paper patient charts in filing cabinets. Electronic systems free up that space for more productive use.

Increased Security – Practice data in electronic form is protected from catastrophic events when proper backup procedures are in place since data can be completely restored to a new system. Paper records once destroyed, are not easily reproducible.

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



An office sending out requests for appointment confirmation to patients via email. Patients can immediately respond to confirm or request an alternative time and have their e-calendars updated accordingly. The dental office's appointment scheduler automatically updates appointment status as patient responses come in.

Paperless Practice = Reduced Costs

Savings Opportunity	Formula (cost x usage/year)	Results/Year
Administrative Labour	Cost per labour hour x # of administrative hours spent per year pulling, sharing, searching for, and filing paper charts	Each Savings Opportunity increases the annual savings from converting to paperless
Clinical Charts	Cost per paper chart x # of new charts required per year	
Supplies and Stationery	Cost of filing cabinets, paper, labels and other charting supplies per year	
Printing	Cost per printed page x # of documents/images required per year	
Storage Space	Cost per year to store charts on or off site	

Automatic Signatures – Electronic charting systems can automatically name, date, and time-stamp entries, which adds validity to notes and maintains data integrity.

Easier Collaboration – Multiple dental team members can access the same patient information from their access point where as paper records can only be viewed by one person

at a time. Also, clinical information such as radiographs and patient images can be transmitted electronically (with proper security measures in place) between GP's and specialists so case planning discussions can take place in real time

Dynamic Treatment Records – With electronic charting, a new and separate cumulative chart is created with

Before making the transition, it is important to ensure that your practice management system is capable of handling electronic clinical records to your satisfaction and to have buy-in from your dental team.

each patient visit providing a more informative historical record. Conversely, paper charts only represent current conditions and do not display treatment history incrementally over time. Electronic charting also allows for easier management and more effective presentation of multiple-treatment plan options. Electronic patient records including odontograms serve multiple purposes: display of cumulative dental histories, multiple treatment plan tracking, case presentation and streamlined billing for administrative and clinical synergies.

Breaking the Myths

As compelling as the benefits of converting to a paperless practice are, there remain misconceptions that have prevented many offices from making the full transition such as:

Legal Concerns: One obstacle is the uncertainty many offices have concerning the legal and professional implications. Simply put, electronic records need only comply with all requirements of traditional paper records, as outlined in the RCDSO Guidelines for Dental Record Keeping. Additionally, the leading dental software systems provide data entry protocols and audit trails to preserve authenticity and integrity of the patient records that can't be replicated with manual systems.

High Cost: 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 still using traditional film and concerned about the costs for digital radiography, inexpensive scanners customized for the dental office can 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 based on the savings and benefits previously identified.

Conversion Difficulty: Perhaps the most common objection is that it is too labourious and cumbersome to convert paper files into electronic records. While there is no doubt significant preparatory work that needs to be done, there are strategies that can be employed to make the task less daunting. New practices should never consider using paper charts as they have the unique opportunity of starting with a clean slate and electronically input clinical information from day one. For established offices with many paper charts, several options are available that make the conversion process more manageable depending on office size and available resources.

Converting Paper Charts to Electronic Charts

Quick Method - With the Quick Method, all patient paper charts and related clinical documents are digitally scanned and loaded into the appropriate patient file repository of the practice management software:

- This method assumes charts are “quickly” converted to digital form with the use of outside resources (and/or that dental staff are available off hours for scanning records)
- The dental team must be sufficiently trained on digital record keeping so it is fully equipped to start charting electronically once all charts are scanned.
- Going forward, electronic patient clinical records will consist of scanned historic information and any new information entered via the practice management software
- Assuming all key information from the patient's paper chart has been scanned, there is really no need to continuing storing paper charts on-site. They should however be retained for a period of time for archive purposes depending on the applicable regulatory body's guidelines (<https://www.rcdso.org/en-ca/rcdso-members/practice-advisory-service/information-on-dental-recordkeeping>)

Pros

1. Transition is quick (assuming charts are scanned quickly)
2. Paper files once converted can be stored off site right away assuming all relevant information has been scanned.
3. May be the only practical solution for very large practices

Cons

1. Costly in terms of outside resources or staff time
2. Potential increased staff stress due to the short training window available
3. Non-relevant/redundant information is likely to be transferred due to lack of dentist/staff vetting charts
4. Electronic odontogram starts with no historical information



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Analytical Method - The Analytical Method is a stepped approach that starts with the vetting of paper charts to determine which patients are high priority for conversion (typically based on their current level of activity). For each patient selected it is also necessary to determine which charts/documents are essential to scan into their electronic file and which documents can remain archived in their paper file.

- A target date is set for when to start charting electronically. The priority patients identified plus any patients scheduled for appointments from the target date forward will need to have the desired content from paper charts scanned into the appropriate patient file repository of the practice management software used.
- Patients who book appointments after the target date are monitored to ensure they have an electronic version of their chart entered prior to arriving for their appointment.
- To give more context to the odontogram before adding new clinical data and to reduce the need to refer to the paper chart, existing

conditions can be plotted on the odontogram for selected patients.

- Paper files that now have an electronic equivalent should be marked with a code to distinguish them from files that have yet to be converted electronically. Similarly, it is recommended to create a patient flag if possible in the practice management software that identifies the patient as one with an electronic chart.
- Going forward, patient electronic clinical records will consist of previously scanned historic information, any existing conditions plotted electronically and new information entered via the practice management software.

Pros

1. Considered the “best practices” solution in most cases
2. Outside resources are typically not required
3. Allows for “cleaner” but more detailed electronic files due to file vetting and charting of existing conditions prior to adding new clinical data
4. Reduces staff stress by allowing for a longer learning curve

Cons

1. Transition time for digitizing charts of all active patients is typically much longer than the Quick Method
2. More difficult for larger offices to employ
3. The need to store paper charts on-site for reference may be longer depending on what level of detail was originally transferred electronic form

Another option for transitioning to electronic charts is a hybrid version of the Analytical Method by incorporating the Quick Method for a segmented group of patients - particularly if the time taking for file conversion becomes problematic. However, it does require a higher degree of discipline for monitoring the status of each patient’s chart. Regardless of the method chosen for converting patient charts, entry of information into both paper and electronic charts for the same patient is to be avoided as it lowers productivity, is redundant and has a high potential for transcription errors.

The benefits of going to a fully paperless practice include increased efficiency and productivity, lower costs, reduced stress, a more empowered staff, and improved patient experiences. Before making the transition, it is important to ensure that your practice management system is capable of handling electronic clinical records to your satisfaction and to have buy-in from your dental team. Making the transition does require investments of time and money but you can take comfort in knowing many offices have already successfully abandoned paper-based systems. Improved technology and increased access to assistance, (meaning that software vendors can provide better service from their accumulated implementation experience over time) will make it easier for you to compete in today’s technology-enhanced dental landscape. ✨