# Six steps to a chartless practice

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_**There is no doubt** that the modern dental practice has changed rapidly over the past fifteen years. Dentists have come to realise that with new technology, they can create a practice that is more efficient, costs less to run, and allows for decentralisation of the front office. Records that were primarily paper- and film-based are being replaced by digital radiography, electronic records, and there is a move towards a paperless, or at the very least, chartless practice. Most offices realise that there will always be paper in a dental practice. Whether it is walkout statements, insurance forms or printed copies of images, paper will forever be part of the dental practice. That being said, there are a number of practices that have truly eliminated their paper charts. While the process is easier for a start-up practice, with proper planning, existing practices can achieve this goal as well.

Many dentists are probably aware that the Federal Government is mandating that all patient records be paperless by the end of the year 2014. The challenge for most practices is evaluating their current and future purchases to ensure that all the systems will integrate properly together. While many dentists are visually oriented and thus tend to focus on the criteria that they can actually see and touch, some of the most important decisions are related to more abstract standards. I have therefore developed a six-point checklist that I feel is mandatory for any dentist adding new technologies to his or her practice, and I recommend that each step be completed in order.

## _I Practice management software

It all starts with the administrative software that is running the practice. To develop a chartless practice, this software must be capable of some very basic functions. For practices that wish to eliminate paper, dentists need to consider every paper component of the dental chart and try to find a digital alternative. For example, entering charting, treatment plans, handling insurance estimation and processing through e-claims, ongoing patient retention and recall

activation, scheduling, and dozens of other functions that are used on a daily basis. Many older programs do not have these features and if practices wish to move forward, dentists will have to consider more modern practice software.

It is important to understand that as much as we would all prefer that our practice management software programs could handle all of these functions, most fall short of this. Fortunately, there are a number of third-party programs that can provide functionality where the practice management programs cannot, such as programs that allow digitisation of forms that require patient signatures and programs that can reduce the process of entering progress notes to a few clicks of a mouse.

### _II Image management software

This is probably the most challenging decision for any practice. Most practice management programs offer an image management module. Eaglesoft has Advanced Imaging, Dentrix has Dexis, Kodak has Kodak Dental Imaging, and so on. These modules are closely integrated with the practice management software and tend to work best with digital systems sold by the company.

For example, having an integrated image module makes it very easy to attach images to e-claims with a few clicks of a mouse. However, there are also many third-party image programs that will bridge very easily to the practice management software and offer more flexibility and choices, although with slightly less integration. There is no perfect system. The choice really is between paying a premium for greater integration or paying less for greater flexibility. Some of the better known third-party image programs include Apteryx XRayVision, XDR and Tigerview.
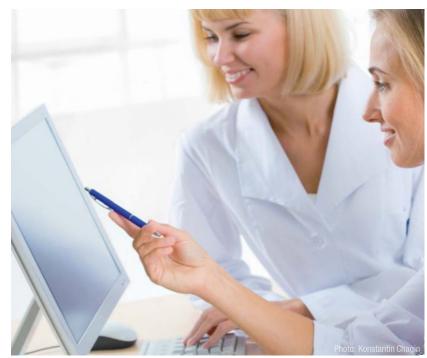
### _III Operatory design

The days of a single intra-oral camera and a TV in the upper corner are being replaced by more modern systems. The majority of practices place at least two monitors in the operatories, one for the patient to view images or for patient education or entertainment, and one for the dentist and staff to use for charting and treatment planning and any sensitive information concerning the Health Insurance Portability and Accountability Act, such as the daily schedule or other information that dentists would prefer that the

patient not see. Microsoft Windows has built-in abilities to allow dentists to control exactly what appears on each screen.
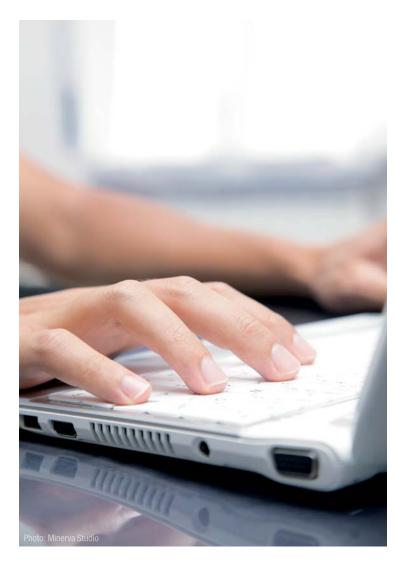
There are numerous ergonomic issues that must be addressed when placing monitors, keyboards and mouses. For example, a keyboard placed in a position that requires the dentist to twist his or her back around will cause problems, as will a monitor that is improperly positioned. Another important decision for the practice will involve deciding whether the dentist prefers patients to see the monitor when they are completely reclined in the chair. If this is the case, then the options are a bit more limited for monitor placement. There are some very high-tech monitor systems that not only allow the patient to see the screen, but also create a more relaxing environment for patients considering long procedures.

### _IV Computer hardware

After the software has been chosen and the operatories designed, it's time to add the computers. Most practices will require a dedicated server in order to protect their data and with the necessary power to run the network. The server is the lifeblood of any network and it is important to design a server that has redundancy built-in for the rare times that a hard drive might crash and can easily be restored. The workstations must be configured to handle the higher graphical needs of the practice, especially if the practice is considering digital imaging.

Photo: Konstantin Chagin

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The computers placed in the operatories are often different from the front desk computers in many ways. They will have dual display capabilities, better video cards to handle digital imaging, smaller cases to fit inside the cabinets, and wireless keyboards and mouses. An often-overlooked consideration is that the smaller the computer, the more heat it generates. Heat is the number one enemy of computers, and since many dentists will place their computers inside a cabinet at the 12 o'clock position, having proper ventilation is critical.

## _V Digital systems

The choice of image software will dictate which systems are compatible. Digital radiography is the hot technology at this time owing to many factors. Dentists with digital radiography report greater efficiency by having the ability to capture and view images more rapidly, better diagnostics, cost savings by the elimination of film and chemicals, and higher case acceptance through patient co-diagnosis of their dental

needs. All systems have pros and cons, and dentists will have to evaluate each system based on a set of standards that are important to that practice. For some dentists, it might be image quality. For others, it may be the cost of the systems, the warranty of the sensor, the company's reputation, or the compatibility of the sensors with their existing image management software. Keep in mind that intra-oral cameras are still an excellent addition to any practice, since they allow patients to see the things that typically only a practitioner could see.

## _VI Data protection

With a chartless practice, protecting data is crucial to preventing data loss due to malware or user errors. Every practice, at a minimum, should be using antivirus software to protect against the multitude of known viruses and worms, a firewall to protect against hackers, who try to infiltrate the network, and have an easy-to-verify backup protocol in place to be able to recover from any disaster. The different backup protocols are as varied as the number of practices, but it is crucial that the backup is taken offsite daily and can be restored rapidly. The modern term is *practice continuity*. It is not only the data that is being backed up that is important, but also critically, the speed with which the system can be restored and the practice can be up and running following a disaster such as a server crash, fire or flood.

For practices that wish to be chartless or paperless, it is crucial to evaluate all the systems that need to be replaced with a digital counterpart, and to adopt a systematic approach to adding these new systems to the practice. Most practices would be well advised to replace one system at a time, and become comfortable with this new system before adding new technologies to the practice. The typical practice will take 9 to 18 months to transition from a paper-based practice to a chartless one._

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