

Practice Reengineering – some initial considerations

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Frustration over practice management systems that continue to soak up additional revenues, but still leave practitioners wanting is not unheard of in the optical world. Further enquiry often yields the comment that the purchase of the practice management system was made “after considerable shopping around and after much thought as to the tasks that needed to be computerised in the practice”. Why then the frustration? Could it be that practitioners tend towards preserving existing business processes and use computers and technology simply to speed things up? Speeding up processes may be useful in some respects, however it does not address any fundamental flaws within the processes themselves. It is not that we deliberately choose to have inefficient business processes in our practices; it’s just that often the processes we have, were created in an ad hoc way and “on the hoof”. Someone decided that a particular task needed to be done and introduced a process or delegated it to someone to do. Over time, and improvisation after improvisation, has meant that the process of dealing with that particular task grows in complexity and no two individuals or practices would now do it in the same way for a variety of reasons including legitimate ones like “exceptions to the rule”. Many of these processes were also more often than not, developed when information was not so readily available or accessible. Today however we live in an information rich environment and have fairly easy access to it. In 2004 52% of UK households already had access to the Internet (9% in 1998) (www.statistics.gov.uk), whilst 68% of small businesses were already connected to the Internet (37% using broadband) (www.ofcom.org.uk).

The modern ophthalmic practice has seen a sea change not only in scope of practice but also, in particular, in the roles of staff in practice. From specific task oriented to multi tasking

and outcome orientated, the employee in the ophthalmic practice will increasingly take on a wider role no matter what their current role may be today. They will have increasing latitude in making decisions, have broader job descriptions, will take on more strategic responsibility, have more responsibility to solve patient and customer problems directly, and will be working in an environment, which by definition, will increasingly be less certain and more ambiguous in the future because change is part of the reality. Reengineering practices in a changing environment is imperative and requires one to have a patient and customer focus with a view to a fundamental review of how the practice works and conducts its business on a regular basis. It requires breaking away from old rules of how we do things and recognise that new rules need to emerge to help move the practice into the future. Information technology is a powerful enabler in this respect, not only for immediate business process reengineering, but also for continuous improvements. The technology that today's practices require is not that which just manages mundane tasks, but one that adds value, allows rationalisation of the business processes, saves costs, provides better management information and ultimately better patient care and outcomes. Reengineering however can easily fail when it changes business processes and activities but does not help the people, at all levels in the practice, to change and accept the new working environment. Practices that invest in 21st-century information technology (designed to work on and harness the Internet i.e. web-based rather than just web-enabled) but are happy to install them utilising 20th-century business processes will invariably become practices that deny themselves what they need most: competitive advantage through transformation of the business. Currently practices have a number of ways to harness the benefits of information technology. Some practices prefer to have piecemeal packaged applications to fulfil simple specific repetitive tasks such as patient recall (perhaps even web-enabled to send e-mails etc), accounts, dispensing, diary, payments, NHS paperwork, etc. Practices that have used

software in this way will have realised the hard way that not having a fully integrated practice management system has meant that the business delivers only part of the benefits envisaged from the implementation of the technology and change. Such an approach may indeed help practices limit their competitive disadvantage and may well be the small step towards the final destination of more complete integration of the practice management system with more manageable or acceptable risks as far as the implementation is concerned. However implementing an integrated business wide, best of breed web-based practice management system can give practices the opportunity to cost-effectively adopt revised or new business processes and practices to enable them not only to keep up with competitors but to gain significant competitive advantage.

It is important to remember that eye care practitioners are best at delivering eye care and associated products and services; and though most will have some computer numeracy, it is not unreasonable to suggest that, save in exceptional cases, practitioners should not also take on the role of the practice IT manager. This being the case – installation and set up, data transfer, server crashes, downtime, viruses, constant upgrades including operating systems and antivirus software, licence fees, complying with legislation, staff training and supplier dependency or “lock-in” are undoubtedly concerns when it comes to acquiring practice management systems. High levels of security with disaster recovery plans in place, reliability, scalability, flexibility, interfacing with NHS (N3), configurability/customisability, future proof, reduced downtime, support line and costs of ownership are key, on the other hand, to the successful adoption of practice management system.

Until more recently businesses have had to live with practice management systems that often took long to install, with a tendency to crash servers, a struggle to upgrade, and often required expensive hardware. Additionally there was the ever-present challenge of managing data between locations, the day-to-day maintenance and support, all without an IT

technician. The advent of web-based practice management software via application service providers (ASPs) however has resolved many of these key concerns. Often referred to as "thin-client" technology, this easy-to-use and cost-effective model allows you to connect your desktop to software applications located anywhere in the world, in effect using the Internet as a "data utility" not unlike electricity. A web-based practice management system requires no installation and little or no set up (except for customisation where appropriate) and no practice-based server. As long as you have an Internet connection you can access your practice management applications instantly. This also means that you do not have to maintain, or backup your data or upgrade your software - the software supplier does this continuously – you will never be out of date or loose your data. So every time you “log on” you would work with the latest version of software with the most up-to-date data. A further advantage of a web-based practice management system is that it allows access from anywhere there is access to the Internet, at anytime, from any Internet enabled device, including personal computers, personal digital assistants, mobile phones etc. This could be in another consulting room, another practice, from home or even whilst away on vacation! (Figure 1). It allows multiple location businesses to take the view that the patient belongs to the business and can go to any of the practice locations that would be able to access the patient’s personal and clinical records, the patient chooses to attend. The spin off is that all practices would converge to adopt the same business processes and working practices enabling the management to capitalise and even benchmark best practice. Comparing results and performance data between practices in such an environment becomes much more valid. If there is a need to bring a particular task to “head office” or allocate it to be done from a particular location or practice (say recall letters), then this can be done without any further installation or set up costs. Since the data is kept secure and encrypted at one data “warehouse” for any number of practices, there is no need for the practice to merge,

synchronise or back up data on Compact Discs, Digital Video Discs or tapes, since this will be done automatically by the software supplier; and any analysis or reports that are run will be on the latest data. All this means more efficiency and, more importantly, much better information to manage the practice more effectively to create value not simply to “automate” or “computerise” repetitive tasks.

Because installation, set-up and maintenance costs are reduced the costs to the practice are also reduced and this means even small solo practices can harness the benefits of a web-based practice management system. Finally web-based practice management systems make it possible to quickly get back to seeing patients after catastrophic events such as the destruction of the premises by fire, wind, water, etc. Once cleaned up the practice can soon be back in business with a Thin Client/PC and an Internet connection. What’s more - if the practice has been working towards a “paperless” mode, the practitioner will have access to almost the complete patient records. Such web-based software represents the next generation of practice management systems that harness the Internet and all that that offers. All this is in stark contrast to the older systems that were primarily designed to operate over Local Area Networks (LAN) usually in the same building. However even these older systems are looking to being “web-enabled” by having bolt-on Internet access in an attempt to offer at least some of the benefits of the Internet.

Web-based practice management systems are however, not without their own set of challenges. There are at least three issues that need to be considered with web-based systems.

1. **The data:** Some practitioners may be unhappy about not having the data on site – this is a symptom of one or more underlying concerns such as security and privacy. It is important to note that any web-based practice management system will have to

comply with the Data Protection Act 1998 and protect the privacy of the data held just as any ophthalmic practice would have to too. As for security – web-based practice management systems tend to utilise the same security methods as on-line banking businesses. So although there are no significant business reasons for a local back up, a routine on site or “Head-Office” back up can be built in as an additional back up for added peace of mind.

2. **Speed of response of the system:** Broadband connections overtook dial-up Internet access connections in the UK in May 2005 reflecting growing popularity, reliability and availability (www.statistics.gov.uk). For a web-based practice management system, a broadband connection with a high bandwidth is a must to ensure the best speeds. However the configuration and architecture of web-based software too can be compiled in such a way that data exchange over the web is minimised whilst maximising speed of the application to give response times the same as a local application.
3. **Downtime:** This can be caused by server failures, software upgrades or ultimately Internet failure. The first two reasons are removed with a web-based solution – even in the event of a complete hardware failure at the data “warehouse” downtime is limited to up to 4 hours – upgrades on the other hand are done out of hours by the software suppliers eliminating upgrade issues. With experts looking after and maintaining the server environment, multiple disks and servers; a hardware failure that would be regarded as a business disaster if installed locally, may in most cases not even cause an interruption to the system availability with a web-based system. Finally Internet failure although can occur, is the strongest link in the value chain and is as reliable as modern communications and phone systems. At worst then this will be as good as the broadband connection and your Internet Service Provider.

However like telephone exchanges, alternative routings could be invoked if a particular broadband connection becomes less than 100% reliable, and to minimise any disruption further, a belt an braces option would be to re-route via a “dial-up” connection or a wireless connection in any emergency.

In conclusion, modern ophthalmic practices should consider practice management systems as an enabler – a service or a utility - to reengineer their business. However to maximise the benefits of such an exercise it is important to look at the best of breed web-based practice management systems and adopt business processes that create value in the practice whilst harnessing the power of the Internet, ensuring that is not only future proof but is on the cutting edge of the present-day/future continuum. A web-based practice management system has the potential to transform an ophthalmic practice, create sustained competitive advantage, and offer additional functionality in a manner that is not easily within reach of non web-based systems. The next article will reflect on some of the possibilities of what best of breed web-based practice management systems could offer.

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Acknowledgement: Schematic of web-based PMS by Andy Bethell