Dental Informatics: the right time to invest in training and research?

By Titus Schleyer, DMD, PhD

These days, technology appears to touch most aspects of our lives, and dentistry is no exception. The plethora of possibilities and questions is seemingly endless.

Should you invest in chairside computers, paperless records and/or digital radiology? Does it make sense for patients to have Web-based access to their appointments and dental record information? What is Health Information Technology (HIT) and what are the implications for your practice? Can computers really make you a better dentist and help improve下的and reduce costs. What we are witnessing is seemingly endless.

The last question is one worth pondering. If we look at all investments in our practices, we make thousands of them: to improve patient care and outcomes, enhance efficiency, or both. Health information technology (HIT) is no different. One may wonder if it is ever hard to gauge the true balance between costs and benefits.

Medicine has pretty much decided that the benefits of HIT outweigh its costs. Many studies have shown that HIT can enhance medical decision-making, reduce medication errors and improve care outcomes. This is why the recent federal stimulus plan, as well as other initiatives, contain measures to encourage the adoption of HIT by physicians, clinics and hospitals. But, what about dentistry?

Evidence for the benefits of information technology (IT) in dentistry can be found, but it is largely anecdotal. Practitioners report easy and nearly ubiquitous access to patient information. Electronic reports allow tracking of patient completion of treatment plans and even health outcomes. Digital information can be e-mailed and shared with patients and colleagues, for instance, to increase patient compliance or to get a second opinion. On the cost side, investments in IT appear expensive in the absence of good measures for the cost/benefit ratio. Sometimes, staff and colleagues are reluctant to change ingrained ways of practice. Unreliable, buggy or malfunctioning technology are the bane of even the most hardened enthusiast.

How can we find a way out of this dilemma? I would argue that we need a more systematic and fundamentally sound approach to conceiving, developing, implementing and evaluating technology. We need to focus on technology that has demonstrable benefits for practitioners and patients. We do have enough evidence that a gadget that is marketed with ambitious but ill- or unsupported promises.

While good ideas for new technologies can arise anywhere, many are the result of successful collaborations between dentists and engineers. We need to arm dentists and IT people. We need to bring the best technical approaches to bear on the problems in our domain, and multidisciplinary collaborations tend to do that.

As many examples from the IT industry show, it is possible to translate good ideas into great software and/or devices. Unfortunately, this is the exception rather than the rule. Individual dental software applications contain many good features and designs, but as a whole there is great potential for improvement of usability, as some of the studies conducted by our center have shown. Improved usability translates into day-to-day benefits for you, the practitioner.

Implementing clinical software applications in a practice is challenging but not impossible. Plenty of offices have a well-run IT infrastructure in which data quality is maintained, data is backed up regularly, and staff trained and productive.

Unfortunately, our dental education and licensing system isn’t well-equipped to judge the worth of HIT. It doesn’t make sense to require that a bill be sent, respond with, “Mrs. Jones, we can do better than that. I can give you your bill right now along with a printout of the services Dr. Smith performed today.”

Give your patients something that a bill can do better than that. If the patient says “I forgive you your bill right now along with a printout of the services Dr. Smith performed today.”

If you have excellent members of your team who are loyal, kind and truly dedicated to your practice, they are much more likely to invest in the role of the financial coordinator and can quickly render financial policy useless.

Educate patients fully so that they understand the bottom-line impact and the overall value of the care you provide. Review your policies, train those who discuss financial arrangements with patients and ensure that patients fully understand the options available.

Before long, we’ll be well past the current economic crunch, and you will have kept your patients in your practice and your bottom-line intact.