Switching to the Long-handled Shovel

How an electronic medical records system can increase efficiency

by Carolyn C. Shadle, PhD, and John L. Meyer, PhD

This article is the first in a series of four. Watch for future articles focusing on efficiently reaching out to clients, staffing and organizational efficiency among the team members, and efficient processes for maintaining inventory and financial records.

When Frederick Taylor developed his principles for the scientific management of workers in his Time Studies, he designed a long-handled shovel that would enable a man who shoveled coal to work for longer hours with less backache than a man who used a small, short-handled shovel could.

This approach also applies to the veterinary field. Instead of raising fees, you may want to shift your focus to opportunities for internal efficiencies. What might be done more efficiently in order to save time, which could be better spent with the client and patient, while reducing costs and eliminating errors? Where might you be able to switch out a short-handled shovel for a long-handled one?

With consistent policies and procedures in place, you are ready to consider adopting new technology.

Improve efficiency with electronic medical records

In 2003, Ken Storimans, DVM, of the Elmvale Veterinary Hospital

in Ontario, adopted an electronic medical records (EMR) system. He wanted to do away with the paper, labels, and files. He said the hospital was spending thousands of dollars on these supplies and had an entire wall devoted to about 10,000 paper files.

"There was no time to cull the files, so they just grew and grew," he said.

More recently, Jennifer Grant, who has been with Somers Animal Hospital in Somers, N.Y., for 21 years, moved the practice to an EMR system. She had become aware that the practice was failing to capture some charges. The misses were adding up, and she was concerned about lost revenue and was also embarrassed to think the clinic might be perceived as less than professional. That's when she started looking into an EMR system.

AAHA, which has established medical record keeping standards for accreditation, does not require that records be maintained electronically. However, the organization does state that documentation is essential. It points out that documentation failures can lead to internal control problems or liability concerns.

Eric Jungemann, general partner with InfoMatrix, which produces the VetFM EMR software, points out that with electronic records the entire practice is more valuable, quantifiable, sellable, and useful, especially when it comes to tracking any service or product.

When discussing the documentation process, veterinarians acknowledge that animal owners expect the data maintained in their pets' files to be correct and clearly written. And because they take their responsibility for the health of their patients seriously, veterinarians want to take care to avoid any error that could be harmful to the life of the animal.

These factors are leading more and more veterinary hospitals to convert their paper records to electronic. Then, when they learn of the added efficiency, they are sold on the idea.

Before purchasing an EMR system

Before jumping in, Wendy Hauser, DVM, who owned a small animal practice for 26 years and now serves on the AAHA Board of Directors, advises practices to have clarity and buy-in from their staff on all policies and procedures.

She believes that mutually agreed-upon written policies and procedures are essential to providing a consistent quality of service. For example, she asks, "Do all the doctors rotate all the joints? Do they do rectal exams on all dogs over age 6? Is the open checklist the same for each client?"

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Sonnya Dennis, DVM, DABVP, also serves on the AAHA Board as liaison to its Veterinary Informatics Committee. She has experience implementing an EMR system at the Stratham-Newfields Veterinary Hospital and reminds us of the "garbage in-garbage out" adage. If records were poorly kept under the paper system, she says, the information that goes into the electronic system will not be of a good quality.

In fact, there will be a traffic jam because the EMR system forces the practice's veterinarians to use forms and consistently provide more detail. Before taking the plunge, it's important to evaluate the quality of your record keeping.

There are a number of other questions you might ask before deciding on a specific product:

- Is the staff ready and able to adapt to the technology?
- Do you need the electronic system to be able to run on a PC or a Mac computer? Does it matter?
- Is the vendor independent or part of a large corporation? Does it matter?
- What is the interoperability of the system? (Can it speak to any other EMR or software systems?)
- Can the records be accessed from any room in the hospital and remotely?
- Is the system prone to crashing?
- How secure is the data?
- How available is support?
- What is the associated learning curve? Can relief personnel use it?
- What plan do you have for transitioning data to the new system?
- What are the costs? (hardware, software, training, support, maintenance)

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> —ERIC JUNGEMANN, GENERAL PARTNER WITH INFOMATRIX

Talking to users will help you determine what features you need and how useful each system is. One hospital had the unfortunate experience of an employee entering a charge on the client's invoice, printing the receipt, and then reversing the charge and pocketing the money. Ask if the system you are considering can track illegal staff activities.

After 16 months with a vendor that provided poor support, Sonnya Dennis' practice took the bold step of changing to a different vendor and starting over. She thinks the most important and most overlooked feature when shopping for an EMR system is the support.

Shop around. There are a lot of EMR companies, but be aware that they are constantly changing and updating. According to Jungemann, "In the last 18 months, 80% of the software vendors changed hands from independent software companies to billion-dollar corporations that own more than one system."

Capterra, Inc. (*capterra.com*) provides reviews of the top software, which you may find useful. Another excellent resource is the latest AAHA T*rends magazine* Readers' Choice Software Survey, published in the September 2012 edition of the magazine.

What holds practices back?

According to Matt Russell, director of technology for Patterson, which produces IntraVet software, less than 50% of clinics are either paperless

or paper-lite. Paul Greenman, senior manager at IDEXX Labs, which produces DVMAX software, believes "most practices have some sort of computer system, but only 25 to 33% enter, view, and store medical records."

AVImark LLC's general manager, Craig Claney, estimates that 50–60% keep basic medical records electronically, though only 10–20% are entirely paperless.

It should be noted that most practices have computerized some of their systems—perhaps, invoicing, reminders, or appointments. Often, the software they own has modules for managing electronic medical records. They just are not using them. This means that many practices can move into the EMR world incrementally.

Staff resistance can hold some hospitals back. It's no surprise that some are not comfortable using computers. After all, veterinary staff members are animal lovers, not "techies." Grant said of her staff, "They were terrified." Jungemann commented that this sense of terror is normal; "People are worried that they will do something wrong," he said.

Grant had to persuade her staff that making the change was the right idea, but she said that after she detailed the financial savings the doctors were all on board.

The cost of making the transition to electronic record keeping may be holding practices back, though. It is, of course, an important consideration, and it will vary depending on the size of the clinic. Other variables include the software system chosen, the extent of customization or data transfer from an existing system, and auxiliary hardware and software.

Greenman says a typical purchase includes software with eight terminal licenses and a 3-day training course at a cost of $12,000 for software, setup, and training and $15,000–$18,000 for hardware and networking. Russell puts the average total cost at $30,000 for a two- or three-doctor practice. Claney notes that new practices that purchase AVImark typically spend under $10,000, which includes the software, a year of technical support, and initial training.

Preparation for the launch

Some practices adopt a phased approach, wherein they tackle a new set of paperless features every two months until goals are met.

In the case of Somers Animal Hospital, once she had decided on the EMR system, Grant got the financing and began working with her staff to determine what they wanted to record and how best to record the exams, vaccinations, dental services, parasites, anesthesia, monitoring, and nutritional counseling. In other words, she reviewed everything from nail clipping to surgery. It was a chance to review all of the policies and procedures.

Amy Blanchard, a trainer with DVMAX software, said that in order to capture all of the charges, the hospital can review a spreadsheet created by the software that has more than 2,000 chargeable items.

Included are all exams, medications, and items in inventory; the hospital can then add, modify, or delete items. For example, if the program will be used in a feline-only practice, all items related to canines can be deleted. As the staff members review each item, they insert the cost and percentage markup for each item.

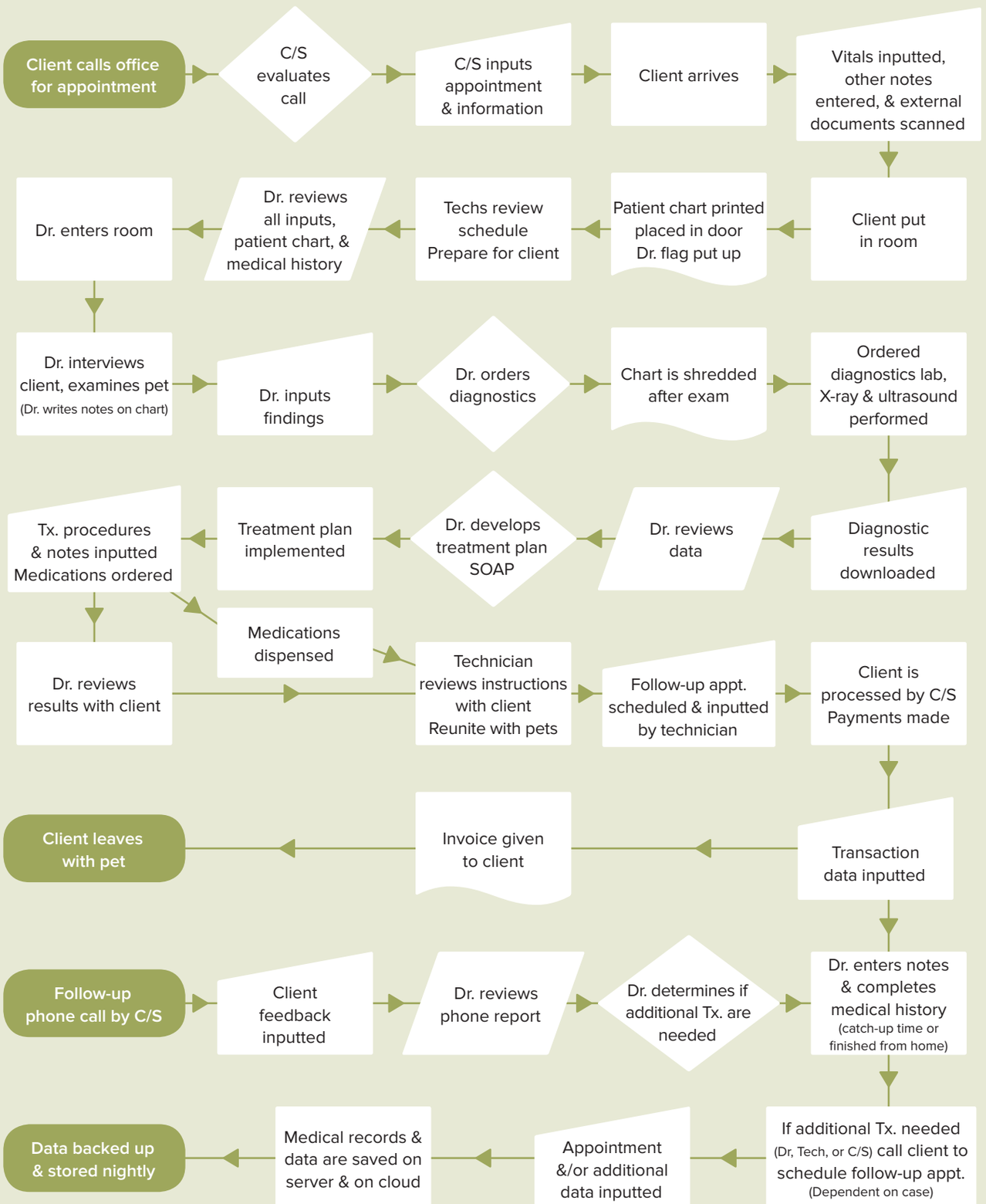
Before they launched, Grant set aside 6 months to decide what they needed to include and how to record their various services. In addition to reviewing the spreadsheet of optional services, she worked with her staff to create "super items." A super item groups together procedures that are typically offered at the same time.

For example, for dental service, the doctor would see items such as anesthesia, X-rays, and hospitalization. For a feline exam, the list will likely include blood work and inoculations. These super items serve as reminders and reduce the risk of missed charges.

By visiting other users, she was able to avoid problems that often arise when practices start using the system. During the 6 months that she'd set aside, Grant invested in 3 hours of training every 2 months, so she could learn the system herself. Then the practice brought in three trainers, who each trained the staff for 8 hours—one with the nursing staff, one with the doctors, and one with the receptionists.

Blanchard pointed out that many clinics order basic training on CDs, which staff can work through on their own time before being in a class with an on-site trainer. AVImark training options include webinars and regional and national seminars. On-site basic training is followed by training to input client information and invoicing. On-site classes may vary, so that those in management, for example,

Veterinary EMR Flow Chart



Flow chart by Marcus Roeder, MBA, CVPM

might receive instruction on building super items while doctors might receive instruction on writing macros.

The macros are a great time-saver. Instead of inefficiently typing the same thing over and over for similar procedures, the doctors select text from a standard list, edit it, and save it for future use. For example, there might be various canine spay templates from which to choose depending on the size and type of dog. When a procedure is completed, the doctor can quickly select the appropriate macro and edit it if necessary.

It should be noted that some practices do not use these automatic entries. For Bonnie Markoff, DVM, the standard of care at the Animal Care Clinic in San Luis Obispo, Calif., involves thorough documentation, so doctors in her clinic write out abnormal findings, assessments, and plans instead of using canned narratives. She believes there is a greater risk for error when using automatic entries, and she prefers detailed notes.

The transition

No matter how much preparation is done ahead of the launch and how much training has taken place, the transition still requires a great amount of work.

In Somers Animal Hospital, it was decided that each time a client made an appointment the receptionist would scan the client's entire file. A protocol was established to scan three separate attachments: written records, consent forms, and lab work.

"That was time-consuming," Grant said. "We paid a staff person to work an extra day each week for three months. And we purchased a super high-end scanner that scans double sided. That made it move right along nicely. It wasn't too bad." Then, before the paper file was shredded, another staff member checked the entire new electronic file against the paper file.

Storimans managed the transition differently. He said, "I hired a kid to come in and set up an electronic file for each client with the client's name and address. Then we started all new electronic files as clients visited, with no attempt to include the history." He said that the law required that they maintain the paper files for 5 years, and by the time they shredded the files the data was irrelevant.

Chantelle Paveo, the practice manager at Marion Animal Hospital in Massachusetts, described their hybrid approach. They used volunteers and interns to scan the files in alphabetical order. All new clients were entered into the electronic system. When a continuing client came in, the appropriate files were pulled out of line for the receptionist to scan into the system prior to the visit. It took about 3 years to get all of the files scanned, but, Chantelle said, "Now we can't understand how we lived without it."

Blanchard worked at a practice that was "paper-lite." It maintained two accordion files with slots for each month: one for consent forms and one for signed estimates. Since the date of the service was in the animal's electronic record, it was easy to locate the paper when needed.

She said that when they first got started they printed out a check-in sheet with the name of the client and

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patient, vaccination information, and the last five entries. This was placed on the exam door for the doctor. Eventually, doctors did away with the paper and went straight to the computer record. In fact, for new clients they didn't even start a paper file. For continuing clients, as clients returned, the receptionist or the doctor summarized the history and put an X on the file. This meant that essential information was in the computer. After the visit, the file was moved to the back room where it was stored for 5 years. Eventually, there were no paper files up front.

Implementation of the EMR system

One new procedure that has to be considered when adopting an electronic record system is how and when the record will be noted. Will the doctor record notes while in the examining room, when he or she steps out of the room, or enter data at the end of the day?

Many doctors now have computers or tablets in the exam rooms. They type, or dictate into a speech recognition system, while they are visiting with the client. This saves time that would have been spent transcribing and avoids handwriting misrecognition, dosage errors, or medication conflicts with allergies, other medications, or other medical conditions.

As the doctors input information into the computer, they are capturing everything and are using a list of codes that remind them of each procedure. When they want to note a series of services in a "super item" or use a macro, they can enter it with just one click. If everything is normal, the doctors click the default "OK" button and move on. If, on the other hand, they need to register something specific, such as the finding of tartar, they will go to a field that enables them to choose the relevant choice, such as "Grade Two Dental Disease."

In Markoff's clinic, in order to accommodate the commitment to writing original narratives, a veterinary nurse is in the exam room putting notes directly into the computer. That proves helpful because the nurse will sometimes ask for clarification to get all the details in the records. At the end of the day, the doctors at the Animal Care Clinic review the notes and make any corrections.

Depending on the software, the system may fill out the lab form and make labels for the sample tubes. Lab reports and radiograph records can be automatically entered into the patient's medical records, either directly from the lab or by scanning them into the computer as PDF files. In some systems, abnormal laboratory results will be flagged automatically, alerting users of issues that need to be addressed immediately. If the record must be sent to a specialist, that can be done with the tap of a key.

You might also be able to incorporate findings from ancillary equipment such as "scopes," EKG, ultrasounds, and images directly into the patient file, thus minimizing duplication of documentation.

Markoff refers to her system as "paper-lite" because the lab documents are faxed and go into a paper file. Her clinic also prefers to have paper flow sheets for lodging hanging on the door for easy access.

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What is the impact? Where is the efficiency?

"Our experience is that practices that move to electronic medical record keeping and the associated protocols and processes around it will see an increase in revenue of 10 to15 percent almost immediately," says IDEXX's Greenman. "This will allow them to recoup the cost of the system in just a few months through improved charge capture and efficiencies."

Grant also focuses on the financial savings. Her practice invested a lot of money for new computers, servers, software, and training in addition to a digital X-ray component. It even purchased a digital fax service to convert faxes to email to be attached to the electronic record. It took less than a year make back the money initially invested, she said. With the reduced need to search for files, take messages, and file new paperwork, the clinic was able, after 3 months, to do with one fewer receptionist.

Besides the salary and benefits savings, they saw enormous savings on toner, paper, file folders, and labels. The bonus was the huge number of missed charges that were captured.

When asked what was the result of the change in his practice, Storimans said quickly, "No more lost files!"

Paveo added: "Now we know where all of the documents are. Lab results, referrals, everything is attached. Everything is easy to find, and it's easy to send on when necessary."

When asked about the payback time, Rachel Francis, DVM, owner of Marion Animal Hospital in Marion, Mass., said: "It was immediate in the eyes of my clients when they saw how organized and professional their pets' records were." From a financial standpoint, she said, "the system paid for itself in the first 3 months."

Another important advantage is the ability to clearly record patients' prescriptions for when the Drug Enforcement Administration or state drug compliance personnel come calling. Also, it is believed that if doctors have access to controlled substance history information at the point of care they can make better prescribing decisions and cut down on prescription drug abuse.

The continuing search for efficiencies

Beyond keeping up with medical practices, legal issues, and technology, you will constantly be evaluating the success of your practice in terms of client satisfaction, effective team relationships, patient well-being, and financial success. That's what efficiency is all about. ※

In addition to tips that you will find in this series of articles, there are two resources you'll want to explore.

One is the seventh edition of *Financial & Productivity Pulsepoints: Vital Statistics for Your Veterinary Practice*, published by AAHA. Based on biannual surveys of veterinary practices, this resource provides metrics and benchmarks. This resource helps one understand how a practice measures up to the competition and to industry standards. By knowing what's normal for a given type of practice, veterinarians are able to recognize what is not normal.

Another excellent way to explore efficiencies is through membership in AAHA's North American Business Association. This group gathers geographically diverse practices to meet and share twice a year. Practices learn by sharing operational and financial information with the goal of improving overall performance, morale, and, of course the bottom line.

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