The paperless practice

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The excitement generated by the issue of improving veterinary medical records is on the level of mowing the lawn—each needs to be done.

Medical records are the backbone of a veterinary practice. They provide valuable information concerning the care provided to animals. Yet, discussions with practitioners suggest minimal attention is paid to these documents. In private practice, for example, medical data are typically reviewed the next time the animal is presented for care or when the client calls with a concern or to ask questions. The feeling is that there has been essentially no other perceived need for medical information from primary care facilities.

We talk often about what is in the medical records but infrequently about what needs to be included in a quality listing of medical information. Academia, for example, emphasizes recording and reviewing medical data, but there is apparently little educational emphasis on identifying the critical information a practitioner will need for his or her records in private practice. On graduation, the practitioner will use or adapt a commercially designed system to meet his or her needs.

The volume of data recorded in a primary care facility is often considerably different or less than that recorded by university veterinary clinics or hospitals. For example, some practices may use a series of abbreviations that meet their needs, with the purpose of providing sufficient information without taking time away from seeing patients.

To meet perceived needs, computer software vendors initially developed practice management systems, paying little attention to medical information except as this information directly applied to charging for veterinary services. A wide range of these systems has become available to assist a practitioner in charging for services provided and to manage multiple other business activities. Some vendors are adding medical record capabilities to their software but are seeking assistance as to the needs of the practitioner.

One current paradigm seems to involve taking existing paper medical records and putting them into the computer. Practitioners are becoming paperless by converting their paper records into computer documents. Some practitioners wanting to become paperless develop their own systems, while others adapt existing software systems to meet their needs. In many current software systems, items needed for business management are captured in separate fields, whereas most medical information is collected in the traditional log format found in current paper records.

Definition of the Paperless Practice

A paperless practice, if well done, provides our profession with the opportunity to substantially increase the value of recorded medical information.

The current definition of paperless appears to mean collecting all data without paper; that is, everything formerly recorded on paper is now collected in a computer. Certain medical information, such as that essential for billing purposes, can be searched and compiled because it is captured in specific labeled fields. Other important medical information, however, cannot be searched for or compiled. We have essentially traded up to a high-tech paper record.

A quality paperless practice, however, will allow us to review the records we have been collecting quickly and easily. In addition, we will be able to compile and search the data from those records for important information that may not be totally recorded in our brain's memory bank. Because of the human-animal bond, we are being asked to handle increasingly complex cases involving an ever-widening range of conditions and diseases. The differences between these conditions may be minor, increasing the risk of an inaccurate diagnosis. With each new advancement in technology, it becomes harder to sort and keep all the information we need in our heads.

Value

Medical records have substantial value beyond their current use. Let's assume for a moment an ideal situation—one in which maximum value could be applied to the medical information collected in practices (private, corporate, primary, secondary, tertiary) across the United States. In this imaginary situation, all practices collect similar information for their cases, using a standard nomenclature. Medical information from the cases can be readily collected, compiled, and reviewed. Examples of the electronic medical record's potential value to the veterinary profession could be divided as follows:

Academia

- Collect current information to support development of diagnostic algorithms that, over time, could possibly be refined to minimize the testing needed for an accurate diagnosis and help control the cost of veterinary care
- Develop accurate disease profiles specific to different parts of the country, thereby increasing the opportunity for an accurate diagnosis the first time an animal is evaluated
- Supplement information available on drug usage to support published recommendations; coupled with the opportunity for an accurate diagnosis, more accurate therapeutic recommendations will

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lead to a higher percentage of first-time successes, again helping to control the cost of veterinary care.

**Practitioners**

- Identify alternative approaches for handling difficult, unusual, or unresponsive cases to allow further development of practitioners’ expertise and improve quality of care.
- Increase the ability for handling cases that may have been referred in the past, while also increasing knowledge of the information that should be collected to facilitate a specialist’s assistance, which will result in more efficient and cost-effective use of specialists or referral practices.
- Provide practitioners the opportunity to identify alternative diagnostic approaches and therapeutic regimens for animals that may previously have been euthanatized.
- Offer continuing education credits for on-line time reviewing the database, because this time represents quality learning and provides immediate answers to diagnostic and therapeutic challenges.
- Afford practitioners the opportunity for off-site record storage for use in the event of a major computer malfunction or other disaster that could impact the integrity of original records.

**Leadership**

- Review the needs of practitioners and the profession when planning approaches to deal with current medical needs.
- Identify information important in dealing with issues impacting the veterinary profession such as antimicrobial resistance.
- Promote drug and service improvements on the basis of reliable information.

**Product, Publication, and Service Industry**

- Develop information for supplemental label claims at a reasonable cost as a tool to extend the life cycle of currently approved products.
- Provide information on efficacy and safety to fulfill the FDAs requirement for annual drug experience reports.
- Identify alternatives for product development such as new product areas, emerging diseases, and fixed-combination products.
- Evaluate equipment and service performance to meet practitioners’ needs.

**Concerns**

Results of a practitioner telephone survey conducted in 1997 indicated substantial interest in a medical record database but also identified a number of concerns. Some practitioners said they were or were becoming paperless, yet a larger number had concerns for what would happen to their data. Others were concerned that the quality of their case reports was not adequate for collection.

Two challenges were identified that would inhibit data collection from current paperless practices. First, continuous data collection needs to protect the identities of the participants, but virtually none of the current software systems will allow omission of identities. The other challenge involves collection of data essential to the evaluation of the case. Current software systems provide for recording much of the essential medical information in a log format but do not allow a search for key information.

Beyond the benefits of a paperless practice, many survey respondents indicated a concern about computer malfunctions. The impact of a major computer malfunction, for example, can be dealt with by daily backups, and a hard copy of the record can be printed out at the conclusion of each case.

What if it were possible to fulfill the values identified for the ideal record-keeping system? What if a paperless system could be provided that would save 15% or more of the time spent recording medical records, with increased accuracy of those records? What if it were possible to review this information individually or collectively? What if the medical information could become an income source for the practice? What if sharing of information could be accomplished while practitioners controlled the use of the medical information without the use of any identities?

The technology is available for the veterinary profession to begin to work toward improving the quality of its medical records, to develop quality paperless practices, and to compile a database of veterinary medical information. The most realistic approach for those wanting to participate would be to begin from the current date and go forward. Retrospective data collection can also be done, but it will be costly. A quality paperless practice that allows important medical information to be compiled will take time and the cooperation of all segments of our profession.

Work on quality medical records is in progress, but until the value is clear, support for this effort will remain limited. Paperless practices will be an asset to this effort; it is important, however, that such records are designed to have maximum value to those who want to use them.

Is the veterinary profession ready to move its medical records system into the 21st century? The answer to this question will come as we look at what it will take to change and weigh the costs in light of the benefits.