

# An Information Service for Practicing Veterinarians\*

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## ABSTRACT

Many Indiana veterinarians are relatively isolated from colleagues and information sources. Their information needs cannot be easily met by public or medical libraries. The Veterinary Medical Information Center (VMIC) at Purdue University, which began operation in the fall of 1977, offers information services designed to meet the specific needs of veterinary medical practitioners in the state of Indiana. Questions received by the center have covered all facets of animal medicine and management. After two years of free service, VMIC will begin charging clients for services and will consider expansion of the service to other states. VMIC operations will be evaluated through data collected by the center and follow-up surveys.

THE Veterinary Medical Information Center (VMIC) began operations in September 1977 in the Extension Division, School of Veterinary Medicine, Purdue University. VMIC is under the administration of the Director of Continuing Education and Extension for the School of Veterinary Medicine. The purpose of the center is to provide a broad range of services to satisfy the information needs of practicing veterinarians in the state of Indiana. The need for VMIC was dictated by the lack of such an information service in the veterinary medical field and the relative isolation of veterinarians from colleagues and information sources. It is hoped that provision of appropriate and timely information will result in improvements in the quality of animal health care.

Veterinary medicine is a rapidly changing field in which information needs cannot be readily met by conventional sources. Unlike physicians, most veterinarians do not have daily interaction in a professional setting, such as a clinic or hospital, where information can be exchanged easily. Veterinarians practicing outside large cities do not have access to comprehensive medical libraries and trained information specialists. Veterinarians who do have access to information facilities often

find that the medical library is not equipped to deal effectively with problems in animal medicine.

VMIC provides a single location, or inquiry station, to which all questions can be directed by telephone or by mail. A paramedical information specialist is responsible for the operation of the inquiry station and the provision of appropriate responses to questions. The background and experience of the paramedical information specialist is in scientific and medical research rather than in librarianship. Because VMIC deals with questions of substance raised by practitioners, a background in medicine was considered the primary qualification for this position. An information-finding program was developed by the veterinary medical librarian and provided as on-the-job training.

Cases involving serious illness or the life of an animal patient require quick response and are usually referred to a clinician or faculty member. Less critical questions, such as drug dosages, may be answered by consulting standard reference books. Other questions are answered through literature searches, lists of journal articles, or information update reports written at the center. Each information update or package is concerned with one subject, such as pseudorabies. The report summarizes currently available information and lists appropriate references. Draft reports are reviewed by veterinary clinicians or faculty to ensure that the information is correct. VMIC relies heavily on computer-based search services, such as those provided by the National Library of Medicine and the National Agricultural Library. The success of VMIC is due in large part to the availability of a broad range of material from the Purdue veterinary medical and life sciences libraries. Quick access to this material permits timely response to practitioners' questions. The libraries' staffs and VMIC have developed close and complementary working relationships. Referrals between the two groups are routine and ensure that questions are answered by the appro-

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appropriate group. For example, private citizens who are not associated with veterinary medicine are referred to the library.

In addition to answering veterinarians' questions, the center is actively involved in an outreach program aimed at increasing veterinarians' awareness of information and the necessity to consult information sources for new data. The outreach program is conducted through state and regional meetings, publications of the School of Veterinary Medicine, news media, and the Veterinary Extension Service.

The project is directed by an advisory committee consisting of the Director of the Indiana Veterinary Extension Service, the Associate Dean of the School of Veterinary Medicine, a representative of the American Veterinary Medical Association, the VMIC information specialist, two librarians, and two veterinary practitioners.

#### INFORMATION SURVEY

During the planning phase of the project and prior to actual operation of the center, practicing veterinarians in Indiana were sent a survey regarding their information-gathering behavior. The data obtained from the survey were used as input for the design of center services. The objectives of the survey were to determine patterns of information gathering, perceived information needs, and sources of information used in specific areas, such as drugs, diseases, and so on.

The survey was sent to 807 Indiana veterinarians. Thirty-eight percent (308) of the questionnaires were returned and analyzed. The respondent group consisted of 38.3% single-person practitioners, 48.4% group practitioners, and 13.3% other practitioners in industry or government. The professional activity of 45.1% of the respondents concerned small animals, 6.5% large animals, 35.4% mixed, and 13% other activities such as research or regulation.

#### *Significant Findings*

In order to determine veterinarians' exposure to information, the survey included questions about journal reading habits and meeting attendance. The journal reading question involved subscriptions, reading, and scanning. The mean number of journal subscriptions was 2.5. Subscriptions to one or two journals were indicated by 17%, while 23% subscribed to five or more. Group practitioners indicated that they read or scanned more titles than single practitioners did.

TABLE 1  
SOURCES OF URGENT AND CRITICAL INFORMATION  
RANKED FIRST OR SECOND

Source	% of sample
Books	71.1
Other practitioners	34.8
Purdue University clinicians	24.0
Journal articles	24.0
Purdue University Diagnostic Laboratory	20.1

Professional meetings provide the opportunity for interaction and information exchange among colleagues. Survey respondents indicated substantially greater attendance at state meetings than at national meetings in the last two years. Median attendance at state meetings was 1.8, while median attendance at national meetings was .7.

Respondents were asked to rank various sources consulted in the last two years for critical and noncritical information. Critical information was defined as information related to the life or well-being of a patient, such as poisoning. "Alternatives to elective surgery" was suggested as an example of noncritical information. Books were ranked as the first or second source of critical information by 71% of the respondents. Other practitioners were ranked as the first or second source by approximately 35% of the practitioners. Results for this question are summarized in Table 1. Sources of noncritical information ranked first or second were books and journal articles, at 73% and 43% respectively; these findings are summarized in Table 2. The suggested list of sources consulted for noncritical information consisted of journal articles, books, other practitioners, the Purdue Extension Service, the Purdue Diagnostic Laboratory, Purdue clinicians, other Purdue faculty, faculty at other universities, the

TABLE 2  
SOURCES OF NONCRITICAL INFORMATION RANKED  
FIRST OR SECOND

Source	% of sample
Books	73.4
Journal articles	42.8
Other practitioners	35.4
Purdue University clinicians	19.5
Purdue University Diagnostic Laboratory	7.2

TABLE 3  
RANKING OF SOURCES OF NEW INFORMATION

Source	Drugs and biologics	Diseases	Surgical procedures	Preventive medicine	Equipment	Nutrition and management
Journals	2	1	1	1	4	1
Books	7	2	2	2	7	2
National professional meetings	6	4	4	4	6	3
Extension services	10	6	7	5	10	4
Other practitioners	5	3	3	3	5	5
University faculty	3	5	5	7	8	6
Sales representatives	1	9	8	6	1	7
Advertisements received in mail	4	10	9	10	3	8
Advertisements in journals	3	11	—	9	2	9
State veterinarian	11	7	10	8	11	11

poison control center, the state veterinarian, the State Board of Health, drug companies, local libraries, and the Purdue University Library. The mean rank for the Purdue University was 11, while the mean rank for local libraries was 12. Neither was a major information source.

The veterinarians also were asked to indicate the most frequently used sources for new information in six subject areas. The rankings are shown in Table 3. Journals and books were checked most frequently for information on diseases, surgical procedures, preventive medicine, and food and nutrition. Sales representatives were the most frequently used sources for new information about drugs and biologics and equipment.

In order to determine the probable use of VMIC services, respondents were asked to indicate, on a scale ranging from "very often" to "never," the likely frequency of use of six services. Services likely to be used very often or often are shown in Table 4. Consultation with Purdue faculty and information updates on current topics were indicated most frequently.

Comments solicited at the end of the questionnaire indicated a strong need for current information in condensed form. The interest in information updates (as shown in Table 4) and the

comments demonstrate the existence of an information need that was not being met.

#### CENTER OPERATION

During the first six months of operation, the center has responded to four hundred requests. Questions have covered the broad spectrum of veterinary practice, ranging from procedures for declawing an eight-month-old cougar to canine dentistry, swine reproduction, and the dollar value of a veterinary practice.

Detailed records are being maintained for analysis and evaluation of the service. A request log is completed for each question. Substantive information about the question, answer, and sources used are recorded. Detailed cost information is recorded so that the costs of answering specific types of questions can be calculated.

VMIC is to operate for approximately two years on a subsidized basis. Currently, services are available only to Indiana practitioners. During the third year of operation, user fees will be instituted and extension of the service to practitioners outside the state of Indiana will be considered. Although pricing schemes have not been determined at this time, the pricing structure will ensure full cost recovery.

During the second year VMIC service will be evaluated through analysis of request logs and follow-up surveys with users and nonusers. Center usage records will reflect use of the center by practitioners in each major area and type of veterinary practice. Analyses of repeat and new users will be made.

Follow-up surveys will ask users to evaluate VMIC services in terms of timeliness of response, form and quality of response, and utility of information provided. Information also will be so-

TABLE 4  
INFORMATION SERVICES LIKELY TO BE USED VERY OFTEN OR OFTEN

Service	% of sample
Consultation with Purdue faculty	46.1
Information updates	39.9
References or abstracts on timely topics	34.5
Computer-produced literature searches	21.8
Extension service	12.9

licited regarding the dollar value of the service and the dollar savings to the practitioner. In addition, when the center institutes user fees, practitioners will be asked for preferences regarding forms of payment. It is hoped that center records and surveys will provide sufficient data to perform rudimentary cost-benefit analyses. As with all information transfer systems, the benefits are difficult to calculate. While it is possible to place a dollar value on a farm animal or race horse, it is impossible to calculate the value of a pet to its owner.

#### CONCLUSIONS

VMIC's first months of operation have demonstrated that veterinarians are actively seeking information. The outreach program, a continuing program of the center, has been successful in increasing information awareness in the veteri-

nary community. One possible result of this awareness could be a greater sharing of knowledge and experience through VMIC and contributions to publications.

The existence of the center has increased the usage of library materials and has enhanced their value to the community. While the Veterinary Medical Library cannot fulfill the information needs of veterinarians directly, it acts as a primary resource and referral point for the information center. As such, it can contribute more actively to the important task of improving the quality of animal medicine.

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