Educational Efforts in Laboratory Animal Medicine by Veterinary Medical Schools

Joseph E. Wagner
Kansas City Veterans Hospital

Larry J. Weber
Virginia Polytechnic Institute

Follow this and additional works at: https://lib.dr.iastate.edu/iowastate_veterinarian

Part of the Veterinary Medicine Commons

Recommended Citation
Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol30/iss2/6

This Article is brought to you for free and open access by the Journals at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State University Veterinarian by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Educational Efforts in Laboratory Animal Medicine by Veterinary Medical Schools

Joseph E. Wagner, D.V.M., Ph.D.*
Larry J. Weber, Ed.D.†

The recent implementation of Public Law 89–544, "The Laboratory Animal Welfare Act," and the increasing importance of animal models in medical research have further extended and sophisticated the professional responsibilities of the veterinary profession. In 1965 there were approximately 445 veterinarians engaged in the practice of laboratory animal medicine in the United States. Undoubtedly this number has increased in the intervening three years to 1968 and by 1975 as many veterinarians may be engaged in laboratory animal medicine as are engaged in livestock animal practice.

At the 104th annual meeting of the American Veterinary Medical Association, in July, 1967, the House of Delegates adopted a resolution — "Public Law 89–544 and Adequate Veterinary Care" from which the following quote is taken: "Resolved, that the AVMA request the deans of the colleges of veterinary medicine to take steps to include, in the professional school curricula and continuing education programs, instruction relating to diagnosis, prevention and control of diseases of laboratory animals."

While guidelines for teaching laboratory animal medicine in the professional veterinary medical curriculum have not been formulated, it is generally agreed that the availability of some type of formal training is desirable. If predictions about the future needs for veterinarians in laboratory animal practice are correct, it may well become a mandatory part of the veterinary medical students' education. It would be the purpose of such training to acquaint the students with the problems unique to laboratory animal medicine and to broaden his professional competencies.

*Doctor Wagner is the Chief of Research in Laboratory Animal Medicine at the Kansas City Veterans Hospital and Assistant Professor in Pathology at the Kansas University Medical School. Formerly Doctor Wagner was an N.I.H. post-doctoral fellow in Pathology and instructor of Laboratory Animal Medicine at the University of Illinois, College of Veterinary Medicine, Urbana. He is a 1963 graduate of Iowa State University.

†Doctor Weber is an Assistant Professor of Education at the Virginia Polytechnic Institute, Blacksburg, Virginia. Formerly he was Assistant to the Dean at the College of Veterinary Medicine, University of Illinois, Urbana, Illinois.

Iowa State University Veterinarian
SURVEY

A survey of efforts to provide training in laboratory animal medicine in veterinary colleges and post-doctoral programs was conducted by the Institute of Laboratory Animal Resources in 1964. At that time a course in experimental animal medicine consisting of twelve hours of lecture was required by one veterinary school. Another school offered an elective course in laboratory animal medicine. The remaining schools incorporated information on laboratory animal species into a variety of courses in the veterinary curriculum. The amount of student exposure to laboratory animal medicine was difficult to quantify, however.

In view of the recent passage of the afore-mentioned Laboratory Animal Welfare Act, it appeared wise to conduct a similar survey of educational efforts by colleges of veterinary medicine in the United States to update the prior data and to determine the extent and manner in which specific courses on laboratory animal medicine are being offered in the professional curriculum. Requests for information concerning continuing educational efforts in laboratory animal medicine for graduate veterinarians and courses in the graduate or post-doctoral curricula were also incorporated in the survey questionnaire. Information was received from all 18 veterinary schools and completed survey questionnaires from 17.

RESULTS

Results of the survey indicate that veterinary colleges have given increased emphasis to courses in laboratory animal medicine in recent years, (Table 1). Six veterinary schools were offering specific courses in laboratory animal medicine in the 1967-1968 school year. In three schools the course was required of fourth year students. In the other three it was offered as one of several elective courses to fourth year students. Four of the six schools offering a course were doing so for the first time in the 1967-1968 school year. One school offered four elective courses dealing specifically with laboratory animal medicine. Laboratory animal medicine courses were offered as electives in two colleges in 1966-1967.

Results from the survey also suggest that the trend of increased importance of laboratory animal medicine in veterinary medical curricula will continue. Of the veterinary schools currently offering courses in laboratory animal medicine, two have plans to offer additional courses. Among the schools not offering courses during the 1967-1968 school year two have plans for such a course during the 1968-1969 school year. Two schools said they will add a course in laboratory animal medicine in future years, but at the time of the survey a precise date for offering the courses had not been established. Two other schools said they would probably add a course but six were uncertain about including specific courses in laboratory animal medicine into their curriculum in the foreseeable future. Of the six schools anticipating the addition of a course in laboratory animal medicine in the veterinary medical curriculum, three planned to offer the course as an elective and three said it would be a required course.

Instruction in laboratory animal medicine for students enrolled in the professional curricula of veterinary colleges is but one aspect of an educational program in laboratory animal medicine. The offering of courses to graduate veterinarians is also of major importance. Graduate level post-DVM courses in laboratory animal medicine were offered by nine veterinary schools. Four veterinary schools, California, Missouri, Ohio and Texas, were engaged in more extensive post-doctoral training programs in laboratory animal medicine. All four programs offered an M.S. degree in conjunction with training in laboratory animal medicine. In addition a Ph.D. degree was optional at one.

Continuing education efforts by veterinary schools have been varied. Nine schools have participated in at least one post-graduate continuing education program in laboratory animal medicine. In two instances the program was given at the annual conference for veterinarians. Public Law 89-544, "The Laboratory Animal Welfare Act, was a topic of major discussion at most of the conferences. One
TABLE 1: LABORATORY ANIMAL MEDICINE COURSES OFFERED BY UNITED STATES VETERINARY COLLEGES TO PROFESSIONAL COLLEGE STUDENTS

<table>
<thead>
<tr>
<th>Department</th>
<th>Course</th>
<th>Year</th>
<th>Required-Elective</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy‡</td>
<td>Functional Comparative Anatomy of Poultry and Experimental Animals</td>
<td>4</td>
<td>Elective</td>
<td>3 Q</td>
</tr>
<tr>
<td>Clinical Sciences‡</td>
<td>Laboratory Animal Hygiene</td>
<td>4</td>
<td>Elective</td>
<td>2 Q</td>
</tr>
<tr>
<td>Clinical Sciences‡</td>
<td>Medical Rounds in Laboratory Animal Medicine</td>
<td>4</td>
<td>Elective</td>
<td>1–1–1 Q†</td>
</tr>
<tr>
<td>Epidemiology and Preventive Medicine‡</td>
<td>Diseases of Laboratory Animals</td>
<td>4</td>
<td>Elective</td>
<td>3 Q</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>Management of Experimental Animals</td>
<td>4</td>
<td>Required</td>
<td>3 Q</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>Laboratory Animal Medicine</td>
<td>4</td>
<td>Elective</td>
<td>5 Q</td>
</tr>
<tr>
<td>Surgery and Medicine</td>
<td>Laboratory Animal Medicine</td>
<td>4</td>
<td>Required</td>
<td>3 S</td>
</tr>
<tr>
<td>Pathology and Hygiene</td>
<td>Diseases and Management of Laboratory Animals</td>
<td>4</td>
<td>Elective</td>
<td>3 Q</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>Laboratory Animal Medicine</td>
<td>4</td>
<td>Required</td>
<td>3 Q</td>
</tr>
</tbody>
</table>

* Q = Quarter Hours  
S = Semester Hours  
† Offered each quarter of the 4th year  
‡ Courses offered by the same veterinary school

The passage of the Laboratory Animal Welfare Act has created a need for competent personnel in the field of laboratory animal care. Veterinary colleges are responding to the need by increasing educational offerings in this area of specialization. The extent to which individual schools are engaging in the teaching of laboratory animal medicine courses vary considerably, however. For example: One school offers four elective courses in the professional curriculum, gives post-doctoral training in laboratory animal medicine, an M.S. or Ph.D. degree, and is highly active in continuing education efforts. Other schools do not have educational offerings in any of these areas.

The amount of exposure to laboratory animal medicine which the veterinary colleges of the United States can give will be determined, in part, by the availability of competent staff. In the professional programs it will depend to a great extent on the flexibility of the curriculum. In schools where curricula are rigidly fixed, the inclusion of laboratory animal courses may be precluded. The provision for elective courses in the curriculum will allow more flexibility for courses in specialty areas which command only limited interest.

REFERENCES
3. Pick, J. R. Education in laboratory animal medi-

EDITORS NOTE
Iowa State University has not included specific course offerings in laboratory animal medicine in the undergraduate veterinary curriculum. Graduate courses pertaining to anatomy, physiology, pathology, and surgery and medicine of laboratory animals are offered and some information on this topic is included in some presently existing undergraduate courses.

A symposium pertaining to the "Laboratory Animal Welfare Act" was presented in May of 1967 at Iowa State University and a University "Animal Welfare Committee" was named to study laboratory animal welfare for the Institution.

A staff position for a laboratory animal veterinarian has been created and future plans call for this person to assist in developing an "Animal Welfare Program" for the College of Veterinary Medicine and the University.

The statement above was prepared by W. M. Wiss, D.V.M., Ph.D., Professor of Veterinary Medicine and Surgery, and Head of the Department of Veterinary Clinical Sciences at Iowa State University, Ames, Iowa.

REFERENCES

6. David, D., Observations on the pathogenic Staphylo-
7. —, Epidemiology of staphylococcal masti-
20. Schalm, O. W., A syllabus on the bovine mammary glands in health and disease. Department of Clinical Pathology, School of Veterinary Medicine, University of California, Davis, California.
26. Witzel, D. A., and McDonald, J. S., Bovine intra-