

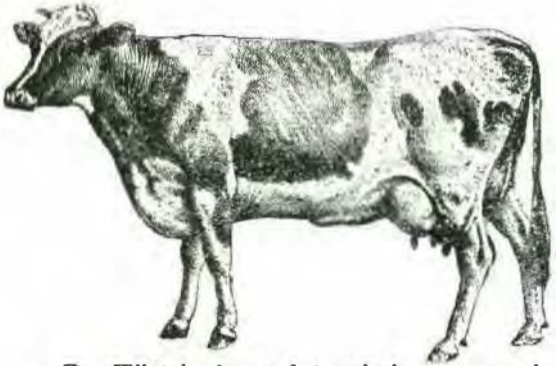


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Medical Record: A Supportive Service

Medical Records, A Supportive Service

ium, cryptosporidia, campylobacter, salmonella and others. In order to determine which organism is implicated in the disease, the veterinarian needs to do laboratory examinations and sometimes more sophisticated tests are necessary to determine the course of treatment for the individual calf. While *E. coli* alters the function of the intestinal cells, a virus like the coronavirus destroys a portion of the lining. In both cases the calf improves only after the altered or damaged cells have been replaced by healthy ones. During the course of the disease all that can be done is to offer supportive treatment.



Dr. Whitlock explained that many dairymen treat their cattle with antibiotics at the first sign of trouble. "Antibiotics are of no value in viral diarrhea and of questionable value in bacterial diarrhea," he said. "They are given primarily to prevent septicemia." He explained that antibiotics kill certain bacteria in the calf but do not affect those fluid secreting cells which are the reason the calf has diarrhea. Antibiotics may prevent the adherence of additional bacteria as new cell growth takes place and contaminated cells are eliminated from the body. "But we see resistance to antibiotics due to indiscriminate and improper use of these drugs and we find many organisms which are resistant to commonly used antibiotics." To reverse such a trend in a herd can be very costly. "We restrict the use of antibiotics and the resistant strains, after a while, will revert back to an ordinary strain," he said. "But in the meantime the dairyman may lose some animals. However, this can be minimized by improving the management, i.e., ensuring colostrum, keeping the calves dry and in hutches, etc."

There are vaccines to protect cattle against infection by *E. coli*, rotavirus and coronavirus, though it was found that vaccination against coronavirus produces very few antibodies in the colostrum. Dr. Whitlock and his colleagues cooperate with scientists at the Wistar Institute. "Rotavirus is a big problem, young infants and the elderly are very susceptible to infection, and it is responsible for outbreaks of disease in nurseries and homes for the elderly," he said. "It is a different strain than the bovine strain, yet research about the bovine rotavirus may ultimately benefit humans and help in the development of an effective vaccine."

More research needs to be done to discover effective ways to prevent the losses from calf diarrhea suffered each year by the agriculture industry. According to Dr. Whitlock, "We don't have all the answers yet."

A student working on a research project about malnutrition needs to know whether such cases were seen at VHUP during the last year. This may appear to be a task involving a lot of record searching, and in previous years this would have been true. Then all diagnoses were recorded on Termatrix cards, a coding system punched on cards. To obtain information the researcher had to examine many cards to find the relevant patient files.

Now the researcher contacts Rosanne Hinrichs, director of medical records at VHUP, who, together with her staff of three, instituted a computerized medical records system at the hospital. All it takes is to pose the question to the computer and in minutes a print-out listing all the cases, the specie, and the discharge status appears. It shows that the cases of malnutrition seen at VHUP during the last year occurred primarily in exotic animals. Armed with the case numbers the investigator can do further research and examine each patient file.

Four years ago, when Mrs. Hinrichs, an Accredited Records Technician, came to VHUP from the Department of Outpatient Medicine at HUP, medical records was a complicated system where records and cross references were kept in different places. "We found that the old system, where a new case number was assigned to the patient each time it was admitted, could not handle the growing case load," she explained.

The new system is patterned after the medical records system used in human hospitals. Each animal is assigned a six-digit number which is used for all subsequent visits and the records are kept together under this number. "This provides continuity of care, it considers the animal as an entity and makes it easier for faculty and researchers to obtain information," Mrs. Hinrichs said.

The computer program which replaced the key punching and much of the manual

record keeping was developed and written by George C. Farnbach, V.M.D., Ph.D., assistant professor of neurology. It was designed to meet not only the record keeping needs of the hospital but also the research and teaching requirements. The program, which is not a particularly large one, allows for storage of information on 800 diseases and disorders, each coded with a number.

It is not in its final form. "We get input from the staff," Mrs. Hinrichs said. "We continually ask what is needed in terms of information, and we upgrade the system as the needs are discovered."

The system permits many uses, such as determining the number of cases of fracture, infection, viral diseases, and the like. It can be helpful in determining whether an outbreak of a disease is occurring in an area, or in a particular specie.

To ensure that all the required data reach the computer, a two-step procedure has been instituted. When an animal is admitted, information such as species, sex, age, owner's name, and so on, is recorded on the admission form and a plastic imprint card with the patient number is prepared. This initial information is fed into the computer when the record comes to medical records after the visit. The record, which also contains information about the illness, general condition of the animal, treatment, laboratory tests, and other findings, is not filed until it is completed by the clinician in charge who records the diagnosis and the discharge status. Then the record is coded, the diagnosis and discharge information are added to the computer records, and the file is placed in storage. Under this system files can be located quickly. Currently there are 60,000 files in the medical records office on the second floor and each year about 18,000 are added. Mrs. Hinrichs explained that the computer records are up-to-date, enabling researchers at the school to obtain current information on the nature of cases seen.

Medical records is responsible for having available the records of animals that come in for repeat visits. Such records are pulled the day prior to the visit when the medical records office receives the appointment schedule. In emergency cases, when an animal comes in during the night, records can be pulled because the emergency service has access to them. Incomplete records, where the final diagnosis has not been recorded, are kept track of through a card system. Clinicians are reminded periodically to complete a record so it can be coded and filed. "We get good cooperation from the staff. They know that records can be located quickly and that they are available to them," Mrs. Hinrichs said. "Under the old system they often kept the records in their offices and it was very difficult to locate specific files."

"Medical records is a supportive service. The hospital is here to heal. We make it easier by having the data available when needed. We are a clearing house for information."



Mrs. Rosanne Hinrichs
Director of Medical Records
VHUP