A Word of Introduction: Guest Editor

As a new standard feature of THE JOURNAL, each issue will have appearing a different physician Guest Editor. Currently you will be reading segments written by some of the members of the AmSECT Medical Advisory Board, the content will be varied with an approach that is as distinctive and as individualistic as the one who writes it.

The Editor

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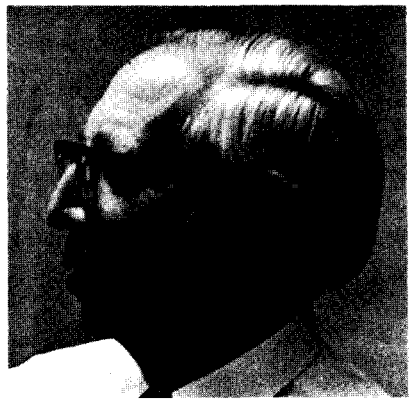

The Responsibility of the Dialysis Instructor

W. J. Kolff, M.D., Ph.D.

The 1972 Social Security amendments (P. L. 92-603) formerly called HR I have recognized that the Federal Government should bear the financial responsibility for victims of terminal kidney disease. It is the first time that the federal government recognizes that help is needed for a financially catastrophic disease; one important point of the law is that it will provide help without regard to the financial status of the recipient. In other words it does not require that the recipient first be reduced to pauperism before he can apply. The responsibility with which the members of this society, the medical profession and various health agencies help to execute this law will determine the likelihood of future government support for other financially catastrophic illnesses. Unfortunately, the law as it is now executed places a penalty on home dialysis. Notwithstanding the fact that the average cost of home dialysis is $5,000 per year whereas the average cost of institutional dialysis is either $20,000 or $30,000, the law provides payment of only 80% for those on home dialysis whereas it pays in full the expense of a patient treated with an artificial kidney when he is admitted in a hospital. For the sake of argument, let us assume for a moment that 10,000 people which could be treated with home dialysis are driven into institutional dialysis. The extra cost to the Social Security Administration would be $20,000 per patient per year. That is $200,000,000 per year. The question may be asked whether the American

public will be prepared to pay so high a price for a relatively small number of its citizens in need. I believe that the possibility exists that the law will be repealed when it proves to be too expensive. Members of the American Society for Extracorporeal Technology are among those who should realize how serious the consequences will be not only for our patients in chronic renal failure, but also for the members of the society. I hope, therefore, that your elected representatives will study the situation and will freely give of their advice to the Social Security Administration.

Members of the dialysis section of AmSect spend their working days with kidney patients and they are by experience and training in continuous contact with the problems that exist. Doctors, whether they are nephrologists or other specialists, spend only a limited amount of time on the technical aspects of dialysis. To the dialysis instructor it is a full-time occupation. He has to study various types of artificial kidneys, new techniques, etc. He is the one who usually spends most of the time with the representatives of various companies who try to peddle one type of dialysis machine or another. Good Extracorporeal technologists spend many hours in various meetings, comparing and studying the various types of apparatus. I believe this time is well spent. I rely heavily on the advice that I get from my dialysis instructors.

If the medical director of your dialysis unit does not listen to you the first time, come back to him with the same problem. If you feel that you have a just cause be sure to go back to him. There are considerable differences in the prices of disposable dialysis equipment. The prices range between $5.50 to $45 per dialyzer. If we should spend that much money on a dialyzer then there must be a very good medical reason to do it. If there is such a reason, the medical director of the dialysis unit should explain this clearly and openly to the dialysis personnel. Money can be saved if disposable units are reused and resterilized. This is regular practice with the Kiil Kidney which is not disposable but must be assembled. There is some drawback to the use of sterilizing fluid and even some danger. The question is whether, under proper circumstances, large savings justify the inconvenience. If it is acceptable for a Kiil Kidney, why would it not be acceptable for a capillary type of artificial kidney?

A well-informed and up-to-date Extracorporeal technologist can give strong incentive to the efficiency of his dialysis unit. Aid should be sought not only from the medical director but also from the hospital administrator and from controlling agents for Social Security. It is essential that they learn to understand.

We have long since held the view that we cannot allow ourselves the luxury of a large number of registered nurses. I am grateful that I have one in each of our dialysis units to provide the fine touches of nursing care and the love and understanding our patients deserve. We do not particularly need them to train patients in the use of equipment, nor do we need them for the technical performance of dialysis. We would never want to miss them in the special role they have to play in nursing. Nor can we afford to lose the help of a good social worker who can do much more than a psychiatrist. A good dietician is needed also. The dialysis instructor has an excellent opportunity to learn of the special needs of his patients. I feel that he should speak up for his patients when a young resident, not

recognizing how horrible thirst can be, accuses an overweight patient of uncooperation. He can also plead for his patients when they are unable to take the various aluminum preparations that taste so horrible and make life so unpleasant. The same dialysis instructor who protects his patients and speaks for them must be uncompromising when he teaches them the correct techniques. He should, however, also be the one who pleads for single needle dialysis if a patient has poor blood vessels. If the medical staff has made up its mind before it knows the facts, it is the Extracorporeal technologist who should come back mildly, but insistently, and request to hear the facts.

If home dialysis is successful and if some help is available for the patient at home, then he will be much better off than with any form of center dialysis. In the first place, he can set his own dialysis schedule. He does not have to go to the center dialysis three times a week. The danger of infection is greatly reduced, and this is particularly reduced for viral hepatitis. However, the organization of a Home Dialysis Training Center is a great deal more difficult than that of a regular dialysis center. The chief instructor of a Home Dialysis Training Center has a much heavier task than his colleagues in a regular dialysis center. In the first place, the patient load in the dialysis center is nearly always the same and regular, you can more or less count on it. In the Home Dialysis Training Center, it is irregular. Patients are trained and leave when they have completed their training. It is not guaranteed that another patient will immediately fill the open place when the trainee has left. Patients who are on home dialysis are encouraged to call whenever they are in trouble. In our Home Dialysis Training Center, they first call their own dialysis instructor. If the instructor can handle the situation on the telephone and give sufficient advice, he does so. He otherwise places a call to the physician on duty and the physician then calls the patient at home. All of this is cumbersome as compared to the ease with which patients are being supervised when they lie in a row in a center (and they are paying while they are lying there).

The distribution of equipment and supplies for home dialysis requires organization. Not all patients are good organizers when they go home and do not at all keep their inventory up to date. This must be controlled through the Home Dialysis Training Center. If patients for some reason or another run out of dialyzing fluid concentrate or run out of kidneys or sterile gloves, there is a problem. Some technologists have taken the view that they do not want to be bothered with home dialysis. I know such a case. This man does not have the devotion to qualify himself for membership in the American Society for Extracorporeal Technology. I know some doctors who do not want to bother either.

If one realizes that the Federal Government, via the Social Security Administration, is going to spend a few hundred million dollars for patients treated with artificial kidneys one wonders about the wisdom of those who cut the research program of $3, to $4,000,000 of the National Institute of Arthritis and Metabolic Disease. Under the leadership of Dr. Benjamin Burton, the renal section of this institute has given contracts for the development of better and less expensive artificial kidneys. An artificial kidney with a disposable insert which saves about $12 per dialysis or $2,000 per patient per year is one example of how money

can be saved. For 10,000 patients this would be $20,000,000 per year. It would be good if the AmSECT would have two representatives at the yearly contractors meeting at which newer developments in dialysis are being discussed. The proceedings of the contractors meeting are highly recommended reading material for members of your society.* Equally difficult to understand is the abolishment of all training grants for paramedical personnel. At the University of Utah we had a small training grant to train dialysis instructors. It was a five-year grant, but after one year we were notified that all such grants are being abolished and we were given a termination year at a reduced basis.

I have witnessed that in some situations the dialysis instructor may get into a very delicate situation. I will mention a few, but I do not have much of a solution to offer. It may be that those who read this will either recognize some of the situations they have been in themselves or will find some solace or consolation that others have had similar problems.

Some, usually young residents, find it difficult to accept that a dialysis instructor with many years of experience knows most of the troubles that the patient can fall into. It must be extremely hard for an experienced technologist to see one of his patients mistreated by the resident. He should refrain from discussing anything in the presence of the patient, but he should ask to see the doctor privately. The result depends on the tact of the technologist and on the receptiveness of the resident. The resident will be more receptive if the technologist talks to him aside and does not take him apart. If the resident does not want to listen, however, it should be the technologist's duty to see an older member of the staff. If this happens too often, he will make a nuisance of himself.

News about patients who have received a kidney transplant usually travels quickly through the dialysis unit when the recipient of the transplant is an old patient from the unit. Other patients waiting for kidney transplants may discuss the situation with the dialysis instructor. If the news is good there is no problem, but if it is bad he should be extremely careful in his remarks. In the first place he knows that dialysis has its shortcomings too. Many patients break their bones no matter what we try and many patients are not really restored to a happy existence by hemodialysis. He also knows that some patients are rehabilitated fully by a successful transplant. He knows, too, that there is a risk in transplantation. It is perhaps somewhat higher than the risk of continued dialysis. I feel that under no condition should the technologist lie if he is asked a direct question. He should never criticize members of the transplantation team—their life is hard enough. On the other hand, the transplantation team when they discuss the odds of transplantation and the possible complications should speak the truth too. If both sides speak the truth, the amount of confusion will be minimized.

Finally a word about hepatitis. I do not believe that a dialysis instructor who in the course of his work has become infected with viral hepatitis should be

*Proceedings of the Annual Contractors' Conference of the Artificial Kidney Program of the National Institute of Arthritis and Metabolic Diseases. Can be obtained from the U. S. Department of Health, Education and Welfare, Public Health Service, National Institutes of Health, Bethesda, Maryland 20014.

excluded from further treatment of patients. It seems that the spread of infection is from patient to patient and rarely if ever from technologist to patient. If a dialysis technologist in the course of his duty acquires viral hepatitis, it should be considered as a professional accident and it should probably be compensated in the same sense as workman's compensation. If the technologist dies as a result of the hepatitis, I believe that his family should be provided for if necessary and should sue for damages. This is an unpleasant note to make but it seems that the hospital or dialysis unit should get the proper insurance.

It may be that next year I will have an opportunity to write something about other facets of the work for Extracorporeal technologists. The people working with heart-lung machines, technicians devoted to artificial hearts, give me daily support without which I could not possibly work. In closing I would like to say that I owe very much to the devoted men and women who have taken as their occupation that of dialysis instructor. I learn from them, listen to them, love them, and I occasionally tell them when I do not agree.