The 1989 Dallas Conference on Morbidity and Mortality in Dialysis: What Did We Learn?

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I will attempt to recall, as best as my memory allows, what we learned from the 1989 Dallas Conference on Morbidity and Mortality in Dialysis. These thoughts and opinions are my remembrance in the subsequent time period and therefore subject to the limitations of recall. Opinions expressed are my personal beliefs and cannot be verified by hardcore scientific data. Accept the thought process on the basis of recollection and my individual assessment of the issues discussed.

History: 25 Years before the Dallas Meeting

It is surprising to me, in retrospect, what has occurred in the past 50 yr. It really is the history of clinical dialysis and kidney transplantation. Many of you may not be familiar with some of the earlier events, so I cover them briefly by decades.

It will be difficult for many of us to realize that there were no self-defined nephrologists in the early part of the 1960s but only renal physiologists in some medical schools. The exceptions to this arrangement were led by a few brave pioneers, such as John Merrill in Boston, Belding Scribner in Seattle, and George Schreiner in Washington, DC. These men ignored the scorn of their academic colleagues and actually looked after patients with renal failure. The early effort of these individuals showed that it was possible to have patients recover from acute renal failure or even survive if their condition were chronic. Their results were exciting, capturing the public interests and making the cover of many national magazines, so the Public Health Service, in the mid-1960s, decided to offer 5-yr grants to determine whether chronic dialysis could be applied to the population at large. We obtained one of those grants in 1967 in Dallas. Finally, to close out the decade, a few courageous souls went into private practice as nephrologists, which became a board-certified specialty for the first time in 1972.

In the early 1970s, National Medical Care began to develop dialysis units outside hospitals, following the example of people such as Fred Shapiro in Minneapolis and Belding Scribner in Seattle. By 1972, the government had decided that ESRD was a disability and could be covered under Medicare (Public Law 92-603). After all, there were only estimated to be 10,000 or so patients per million population. I was stung by his comments and asked what were the mortality rates were; the reply was 10%. I knew he had no firm data to support this statement, but what if he were correct?

Upon my return to the United States in July 1987, I summarized my results in writing. No one believed the poor outcomes being achieved. Philip Held, who would become the first director of the United States Renal Data System (USRDS), said, “Alan, your data must be wrong. If it was true, the government would have shut the program down.” Similar responses were received whenever I presented the accumulated data. I was beginning to conclude I indeed must be wrong.

In early autumn, I discussed with Allan Collins the mortality rate in Minneapolis (he was one of the few nephrologists with organized data). Like Stuart Cameron, Collins stated a 10% annualized mortality rate for their patients with ESRD. A telephone call 24 h later corrected the figure to approximately 20% if you consider all patients. In conjunction with Tom Parker, it

Events Leading up to the Dallas Meeting

The early part of the 1980s centered on the National Cooperative Dialysis Study (1) led by Ed Lowrie, Frank Gotch, and my colleague, Tom Parker, among others. The results on a very select group of approximately 150 patients (none with diabetes) were published in Kidney International in 1983 (2). The result from the data led to a shortened dialysis time in the United States. Ignoring time in the study was, in retrospect, a mistake, and the follow-up period should have been longer. Interestingly, the rest of the world did not “buy into” the data and continued dialyzing as though Kt/V did not exist.

In 1987, I went on sabbatical in London at Guy’s Hospital and spent much time reviewing our Dallas data and what limited amount of US information was available. When I eventually presented my findings of a ≥20% mortality rate at renal rounds, Stuart Cameron, one of the leading nephrologists in the United Kingdom, commented that “the results were terrible, but what could be expected after accepting all of those patients?” At that time, the United Kingdom was accepting <50 patients per million population for ESRD care, compared with the United States, which was accepting around 150 per million population. I was stung by his comments and asked what their mortality rate was; the reply was 10%. I knew he had no firm data to support this statement, but what if he were correct?

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was decided that a meeting needed to be convened to examine data from around the world.

The Dallas Meeting
For the Dallas meeting, we asked three questions:
1. Is the mortality rate in the United States actually higher than in other “industrialized” countries?
2. Has the mortality rate in the United States been increasing in the past several years? If so, then why?
3. Can the differences between the countries be accounted for by the prescription and delivery of dialysis or the demographics/incidence rate of the patients selected to receive ESRD care?

In 1988, those with data were a small group, and all were invited. There were six national registries (the results from the registries are shown in Table 1) and two or three individuals with data. We asked that anyone coming and reporting their results follow a fixed format:
1. Yearly acceptance rate (incidence)
2. Prevalence rate for the calendar year
3. Gross mortality, which we defined as “the number who died during a calendar year over the mid-year census”

In addition to the six registries, we had data presented by Allan Collins from the Regional Kidney Disease program at Hennepin County Medical Center in Minneapolis, Minnesota, and by Ed Lowrie from the National Medical Care Information System in Waltham, Massachusetts.

After the meeting, Phil Held worked with various presenters to construct estimated 5-yr results, and this was also included.

Many others were there and contributed. Following is what evolved:
1. Yes, the United States did have a higher mortality rate, although it accepted more patients.
2. Yes, the mortality seemed to be rising in the United States.
3. Many theories were proposed as to why; however, the shortened time on dialysis using Kt/V was considered the most likely culprit.

Let me end this section by saying that I thought we had it solved. I still remembered placing “near dead” patients in the 1970s on dialysis and having them recover, and I assumed that improvement would follow if we only dialyzed longer. What I forgot was that in the 1970s, dialysis was 5 to 6 h three times per week.

What Happened Next?
The United States did increase the time on dialysis, but there was not the improvement I had expected (4). In Dallas, we increased the amount of dialysis and at one point reduced the yearly mortality to 16%.

In the early part of this century, two randomized, controlled trials were completed. You all are familiar with those trials. The Hemodialysis (HEMO) Study (5) increased the amount of hemodialysis delivered with in-center treatments. That study was undertaken later than many of us wanted, but I still believed that more dialysis with or without high-flux membranes would improve outcomes. It did NOT. Meanwhile, the second randomized, controlled trial, the ADEMEX Study of peritoneal dialysis (6), was conducted in Mexico, where they decreased the amount of dialysis delivered compared with the control population. There was again NO difference in outcomes. The result of these two studies caused nephrologists around the world to begin to recognize, I believe for the first time, that more frequent and/or longer dialysis was necessary, but we needed a better method to measure outcomes. In addition in the United States, we began to realize that longer dialysis treatment times could not be delivered in-center with our shift system. Home dialysis was again becoming a consideration as shown by Lindsay et al. (7). The only exception that facilitated in-center overnight dialysis of up to 8 h per treatment was that some of the dialysis chains had units not in use at night.

So Where Are We Now?
I pointed out that the Dallas meeting asked three simple questions. I conclude by asking three additional questions. The first relates to the fact that, although many things have changed, some things do not change. One of the things that has not changed is that you are the doctor and most patients with ESRD come to the center through you. If this is still true, then my first question is,

1. Why are you tolerating the current in-center dialysis system for your patients?

Before you answer that, let me take you back in history to another country, and the year is 1948. In England after World War II, Winston Churchill had been voted out of power as a...
“war monger” for suggesting that Adolph Hitler was being replaced by Joseph Stalin. The new Prime Minister Clement Attlee chose as the Labor Government’s Health Minister Aneurin Bevan, who was determined to bring in a national health service. His opposition was the British Medical Association (BMA), particularly the specialty consultants who gave of their time in the hospitals but made a very good living in private practice. Bevan’s solution was to put all of the doctors on salary. When this plan was announced, the BMA voted 40,000 against, with only 5000 in favor. After much negotiation but only minor changes, the BMA agreed to support this major change. Bevan was asked later how this was accomplished, and he said about the doctors, “We stuffed their mouths with gold.” Initially that was the case.

Now why would I bring up ancient history before my second question, which is,

2. Is it possible that the “chains” are trying to follow Bevan’s lead and the “gold” is the medical director’s fee?

A true story in point makes one reflect on this issue. A colleague was committed to the home dialysis model and training patients for such treatment. A former fellow of his was equally committed to the home concept for many of the patients. Referral for home dialysis training from this former fellow ceased. When this colleague queried his mentee about the stop in referrals, the reply was, “Did you not know I have become a medical director?” The senior nephrologist bluntly asked, “You mean you would compromise your principles for $25,000?” The reply he received was, “No, you don’t understand—it is $60,000.” Have conflicts of interest invaded our current dialysis system and compromised unbiased thinking?

Let me close with the final question I would like you to consider as you read and discuss this article. I have asked this question of literally dozens of my nephrologist friends and posed it to many additional audiences of doctors and nurses who work in dialysis units:

If you developed ESRD and had to undergo dialysis while you awaited your transplant, where would you go for dialysis? Almost uniformly, nephrologists have stated they would dialyze at home on either a short daily or nocturnal hemodialysis schedule or do peritoneal dialysis. The reasons given are simple, including, “I want to continue to work.” The one who alleged he would undergo dialysis in-center would do it with long overnight dialysis because he did not want the equipment in his home; therefore, my third question is not where you would dialyze but,

3. Being the patient’s advocate, are you subjecting them to a treatment that you would not undertake yourself or have your immediate family undertake?

The past we know, the future is in your hands.

Disclosures

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References