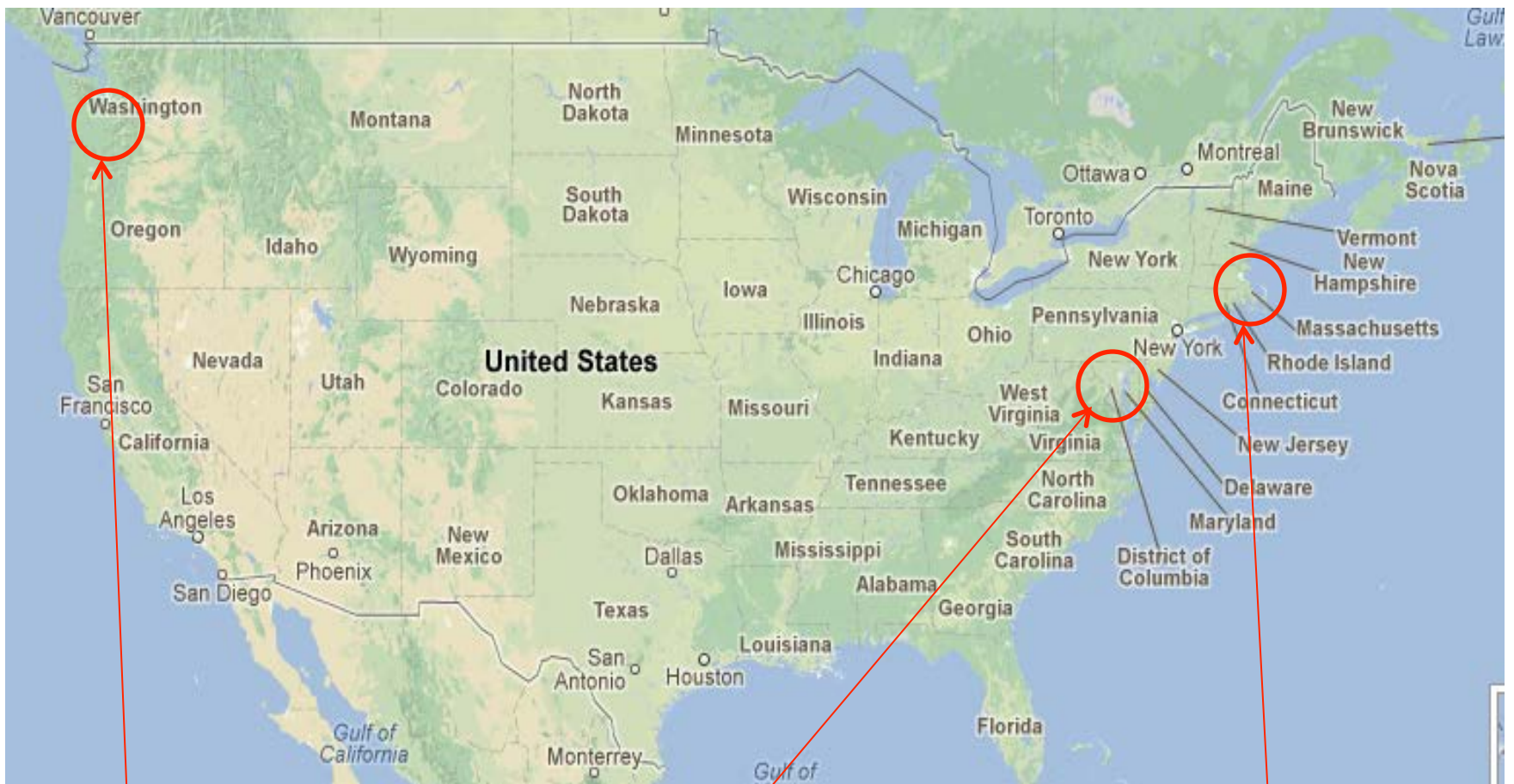


Dialysis and Transplantation at PBBH

1960's -1976

	CardioRenal Division		Surgery and Pathology
	Dr. John Merrill		Dr. Joe Murray
Pathophysiology	Hemodialysis and PD	Transplantation	Dr. Richard Wilson
			Dr. Nick Tilney
Dr. Richard Glassock	Dr. Eugene Shupak	Dr. JM Dubenard	Dr. Gorden Vineyard
Dr. Stan Franklin	Dr. Ted Hager	Dr. Tony d'Alpice	Dr. Alan Birtch
Dr. Eli Freedman	Dr. Gus Hampers	Dr. Graeme Catto	Dr. Harwell Harrison
Dr. Murray Epstein	Dr. George Bailey	Dr. Bernie Carpenter	Dr. Fred Morgan
Dr. Bill Flanigan	Dr. Ed Lowrie	Dr. Terry Strom	Dr. Gus Dammin
Dr. Bill Braun	Dr. Mike Lazarus	Dr. Edgar Milford	Dr. Helmut Renke
Dr. Norman Hollenberg		Dr. Larry Hunsicker	
Dr. Harold Solomon		Dr. Marvin Garavoy	
Dr. Don Oken		Dr. Michael Phillips	
Dr. Adrian Katz		Dr. JP Spouillou	
Dr. Frank McDonald		Dr. M Suthanthiran	
		Dr. Doug Norman	

How hemodialysis and peritoneal dialysis were developed as treatment options for large populations of patients with renal failure



Northwest Kidney Center
Dr. Belding Scribner

Georgetown University
Dr. George Schriener

Peter Bent Brigham Hospital
Dr. John Merrill

Major Dialysis Centers in US in late 1960's –Early 1970's

MEDICAL PROGRESS

THE ARTIFICIAL KIDNEY

JOHN P. MERRILL, M.D.*

BOSTON

THE NEW ENGLAND JOURNAL OF MEDICINE

Jan. 3, 1952

Vol. 246 No. 1

... for at least three hours after intravenous ...

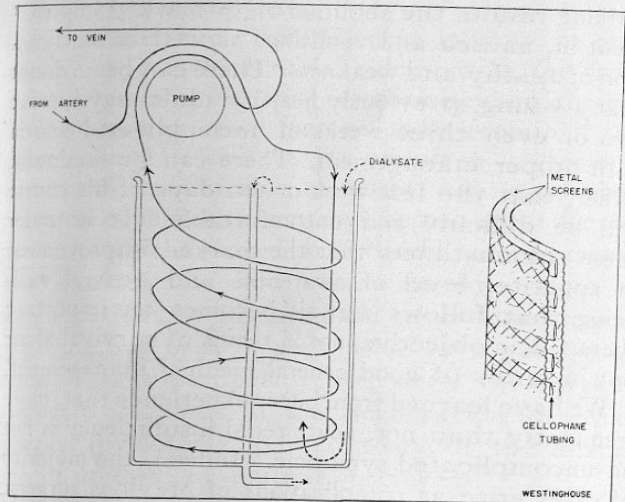


FIGURE 3. Schematic Diagram of the Alwall Apparatus as Modified by Westinghouse.

Coils of cellophane tubing are wound between two sets of metal screens. The rotary pump provides pressure flow through the tubing from artery to vein. In practice three such units are placed in series.

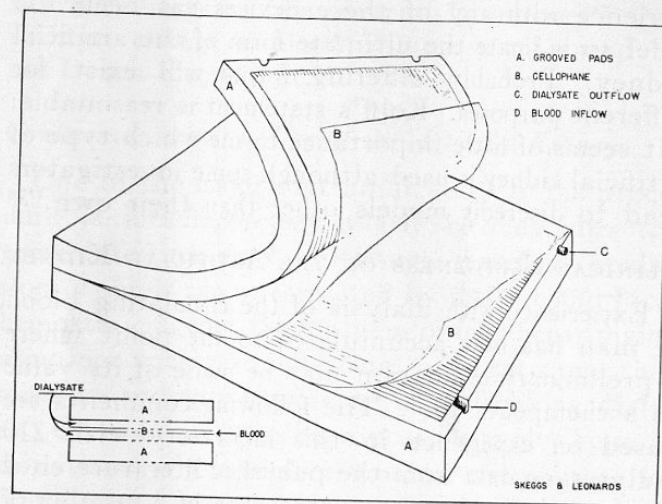


FIGURE 4. Dialyzer as Modified by Skeggs and Leonards.

In operation a spacing bar is placed between two sheets of cellophane (B) so that blood flows through these in one direction while dialysate flows on either side of the cellophane sheets in a counter-current. (Redrawn from Skeggs and Leonards.^{4,5})

Travenol Tank Dialyzer

~ 1956- 1975

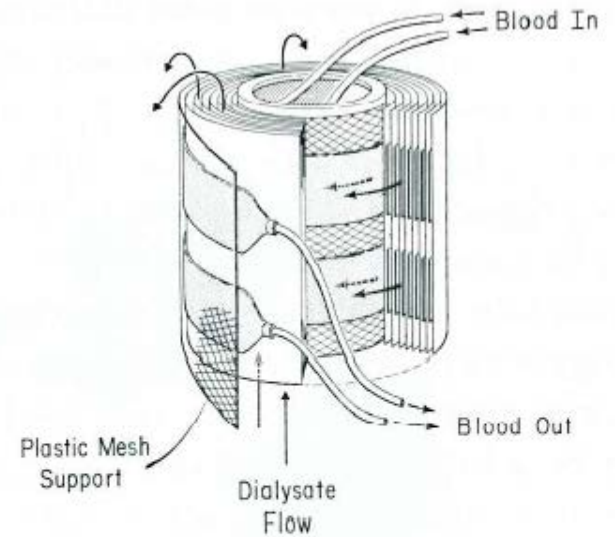
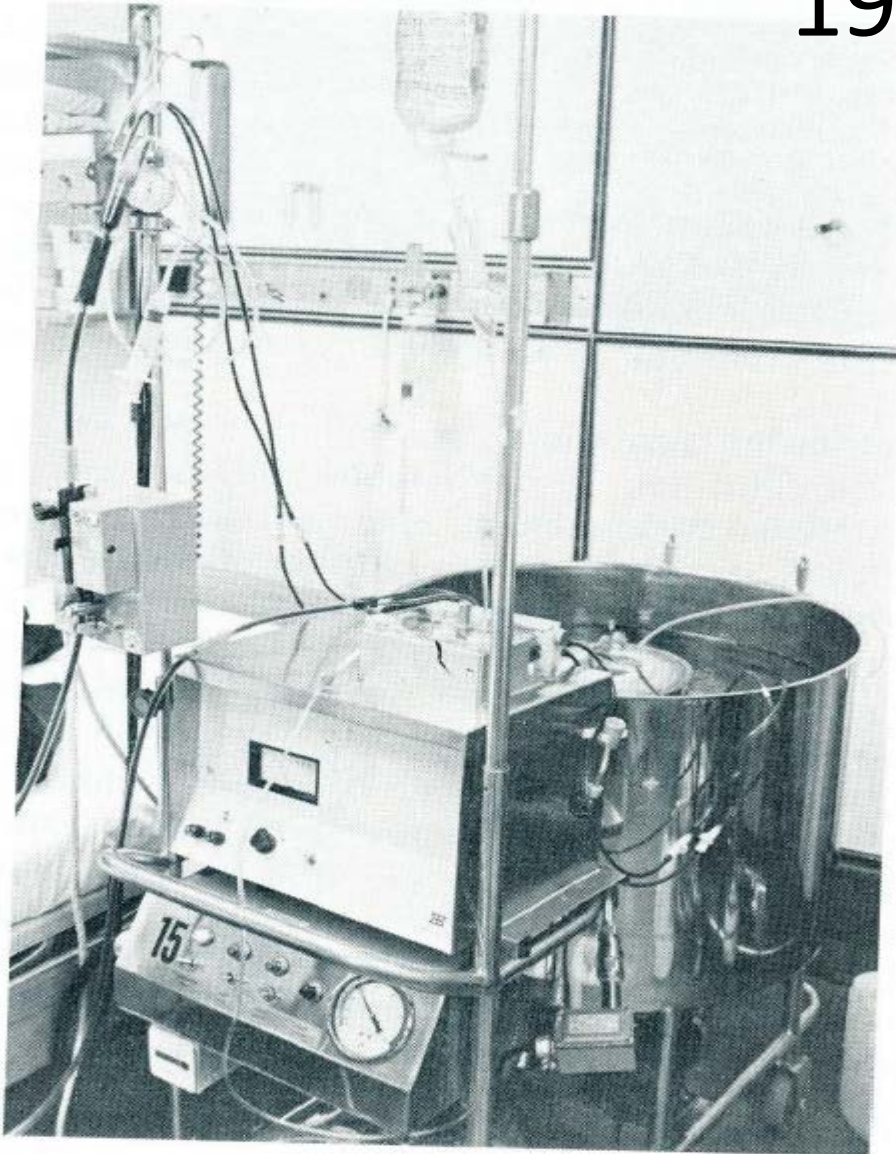
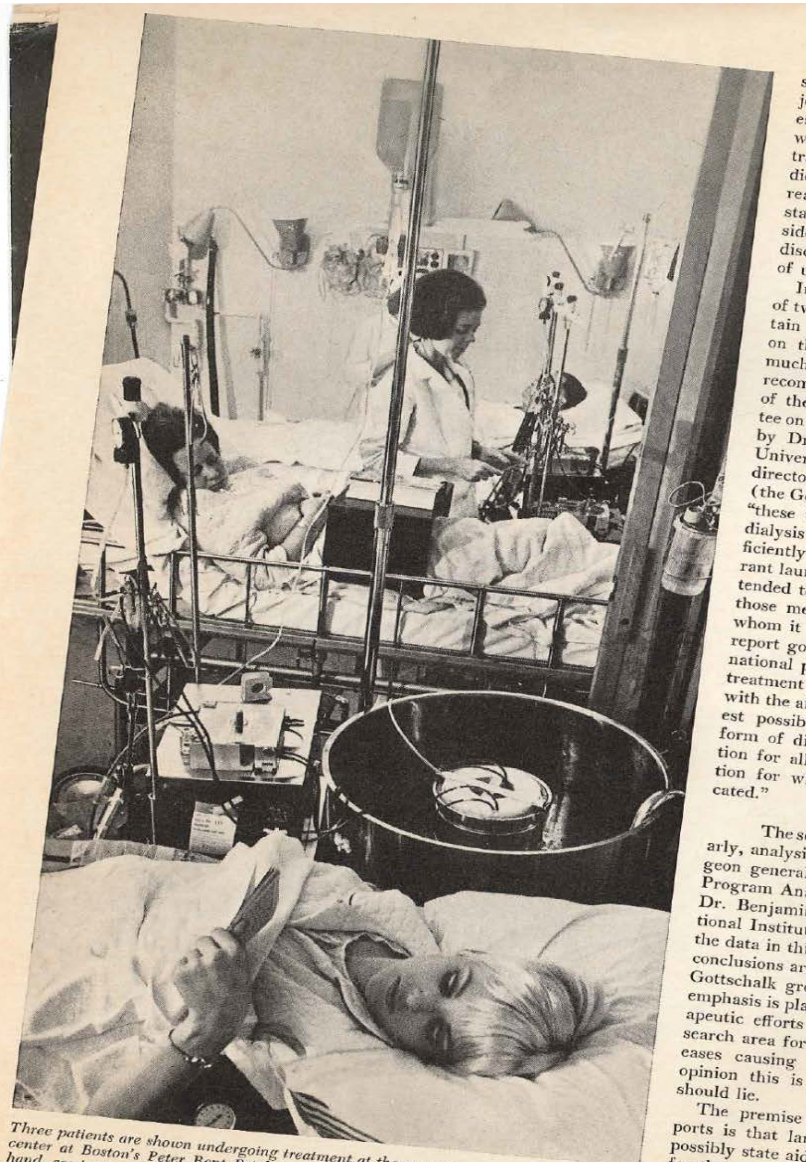


Fig. 12. Typical tank-type hemodialysis system.

Dialysis Unit A Main Peter Bent Brigham Hospital



Three patients are shown undergoing treatment at the same time in the chronic dialysis center at Boston's Peter Bent Brigham Hospital. Two nurses, the number always on hand, are in attendance. Artificial kidney in foreground is twin-coil type.

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opinion this is
should lie.
The premise
ports is that larg
possibly state aid
for the creation of
university hospita
in community hosj
then, the question

EXPERIENCE WITH LONG-TERM
INTERMITTENT HEMODIALYSIS.

Ann Intern Med. 1965 Mar;62:509-18.

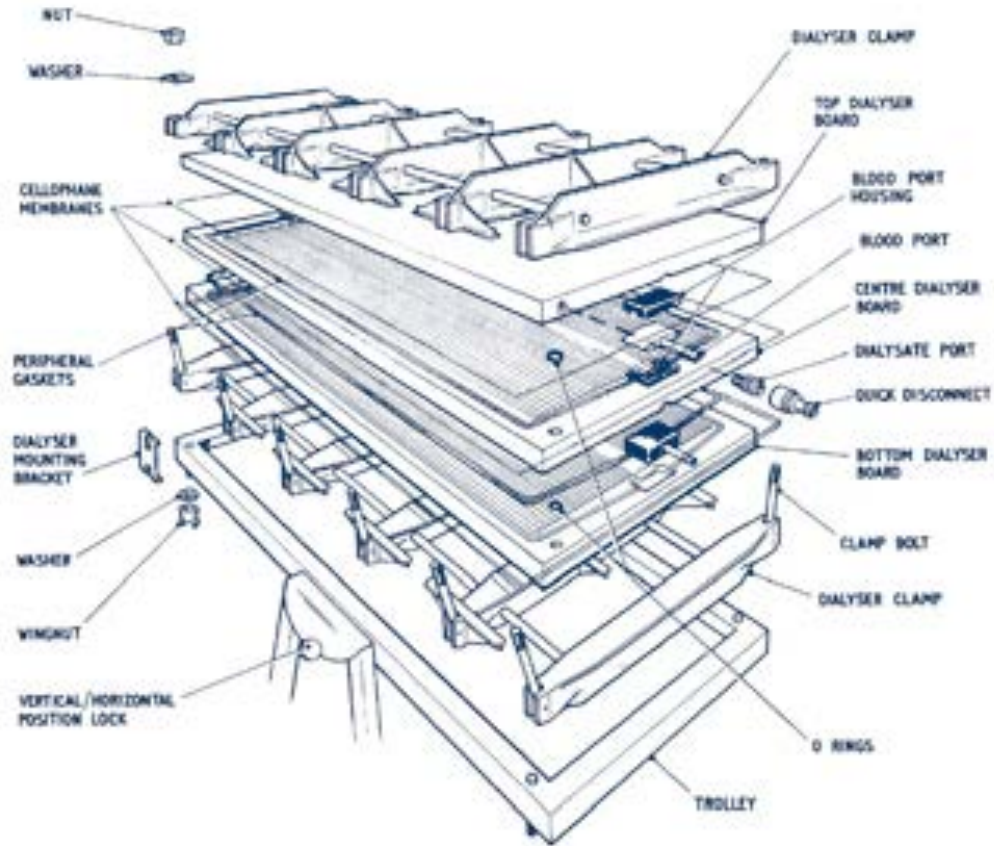
Schupak E, Merrill JP.

Twin Coil: performance and
predictability.

Trans Am Soc Artif Intern Organs.
1969;15:60-4.

Lowrie EG, Hampers CL, Merrill JP.

Kill Dialyzer



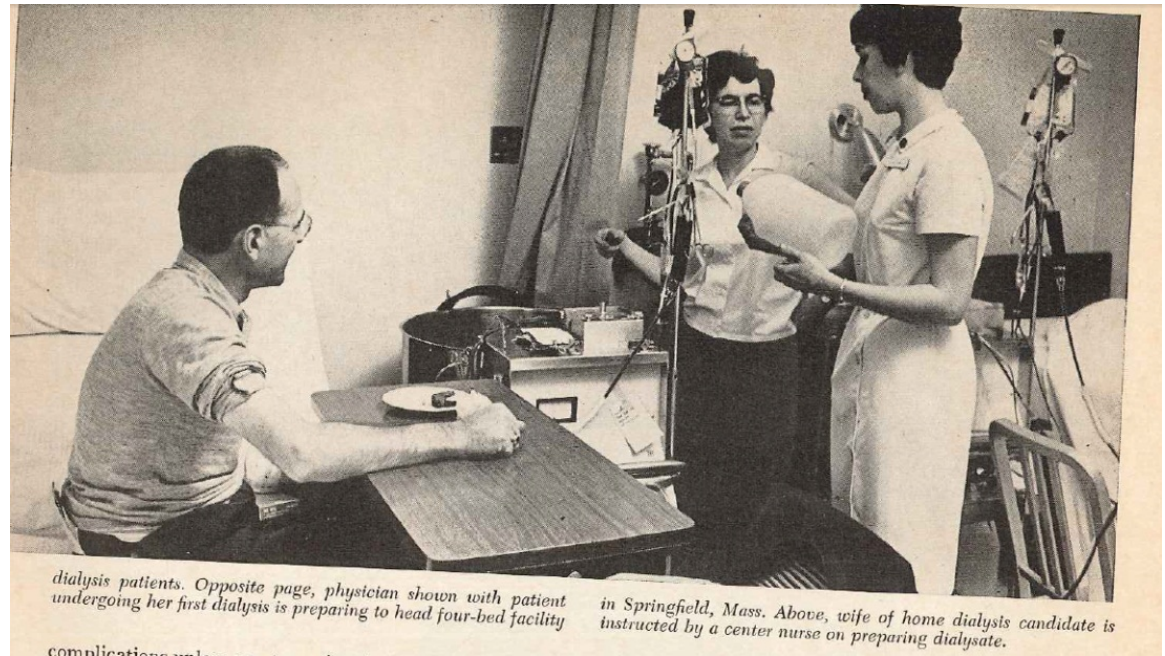
Device primarily used in Northwest Kidney/Scribner dialysis.

Kiil Dialyzer ~1958-1975





At Peter Bent Brigham Hospital in Boston in 1964, Barbara Fulton, RN, cares for a home training patient.



Elizabeth Cameron, RN, trains a home peritoneal dialysis patient at Peter Bent Brigham Hospital in Boston in 1964.

Hemodialysis in the Home

*J. P. Merrill, MD, E. Schupak, MD, E. Cameron, RN,
and C. L. Hampers, MD, Boston*

JAMA, Nov 2, 1964

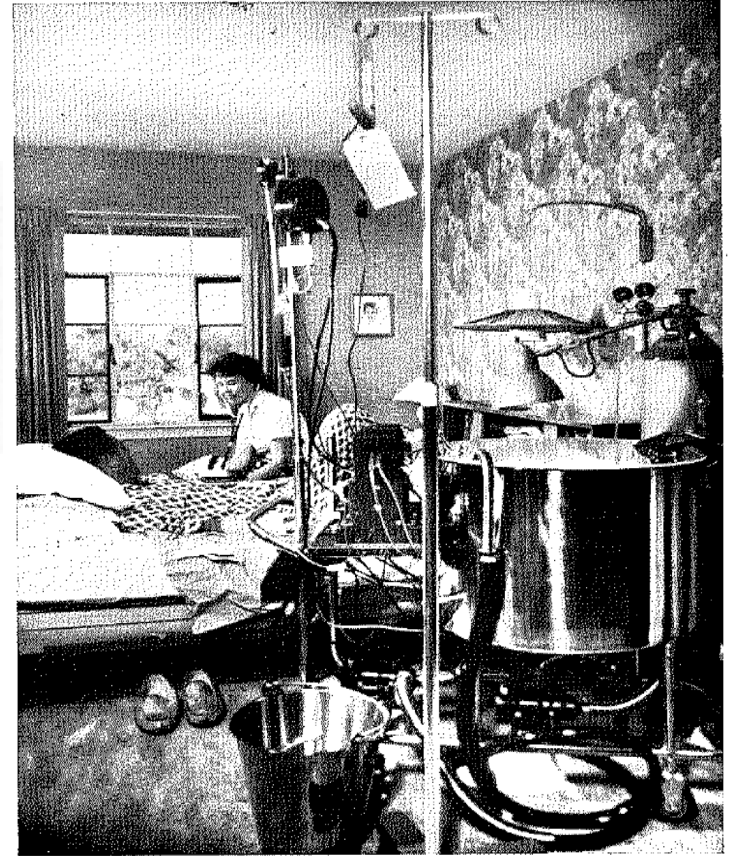


FIG. 4. "Home dialysis." The patient is a 36-year-old accountant who has been maintained on home dialysis for one year. The entire operation is conducted by his wife. The procedure begins shortly after supper two or three times a week and is ended between 12 and 1 a.m. The patient is ready for work the next morning.



Hemodialysis in the home--13 months' experience.
Ann Intern Med. 1966 Feb;64(2):276-83.
Hampers CL, Merrill JP.

The artificial kidney at home. A look five years later.
JAMA. 1970 Jun 15;212(11):1850-5.
Bailey GL, Hampers CL, Merrill JP, Paine PA.

The New England Journal of Medicine

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Volume 288

APRIL 26, 1973

Number 17

SURVIVAL OF PATIENTS UNDERGOING CHRONIC HEMODIALYSIS AND RENAL TRANSPLANTATION

EDMUND G. LOWRIE, M.D., J. MICHAEL LAZARUS, M.D., ALTAIR J. MOEGLIN, M.D.,
GEORGE L. BAILEY, M.D., CONSTANTINE L. HAMPERS, M.D., RICHARD E. WILSON, M.D.,
AND JOHN P. MERRILL, M.D.

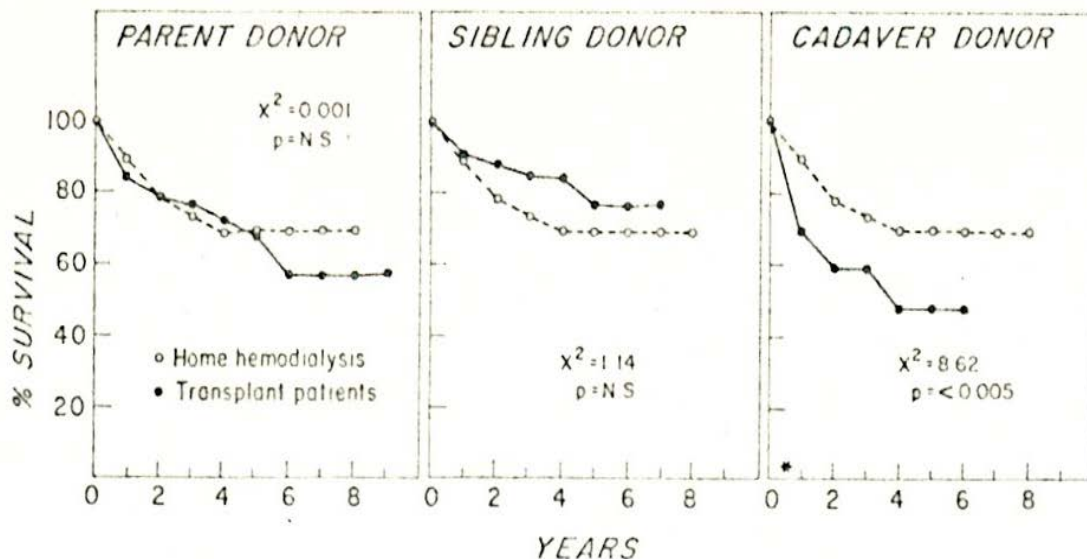


Figure 4. Survival Curves Comparing Home-Dialysis Patients with Recipients of Cadaver, Parental and Sibling Transplants. χ^2 indicates the significance of the difference between the total curves. *Yearly decrement significantly different ($p < 0.001$).

The New England
Journal of Medicine

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Volume 248

JANUARY 22, 1953

Number 4

SHORT-TERM CONTINUOUS TRANSPERITONEAL DIALYSIS*

A Simplified Technic

MARCEL LEGRAIN, M.D.,† AND JOHN F. MERRILL, M.D.‡

BOSTON

The use of an inlying plastic conduit for chronic peritoneal irrigation.

Trans Am Soc Artif Intern Organs. 1962;8:252-5.
Merrill JP, Sabbaga E, Henderson L, Welzant W,
Crane C.

Peritoneal dialysis and acute renal failure.
Surg Clin North Am. 1963 Jun;43:883-96.
Hager EB, Merrill JP.

Peritoneal dialysis. Clinical experience.
N Engl J Med. 1962 Nov 22;267:1060-6.
Burns RO, Henderson LW, Hager EB, Merrill JP.

The Clinical Application and Technique of
Peritoneal Dialysis.

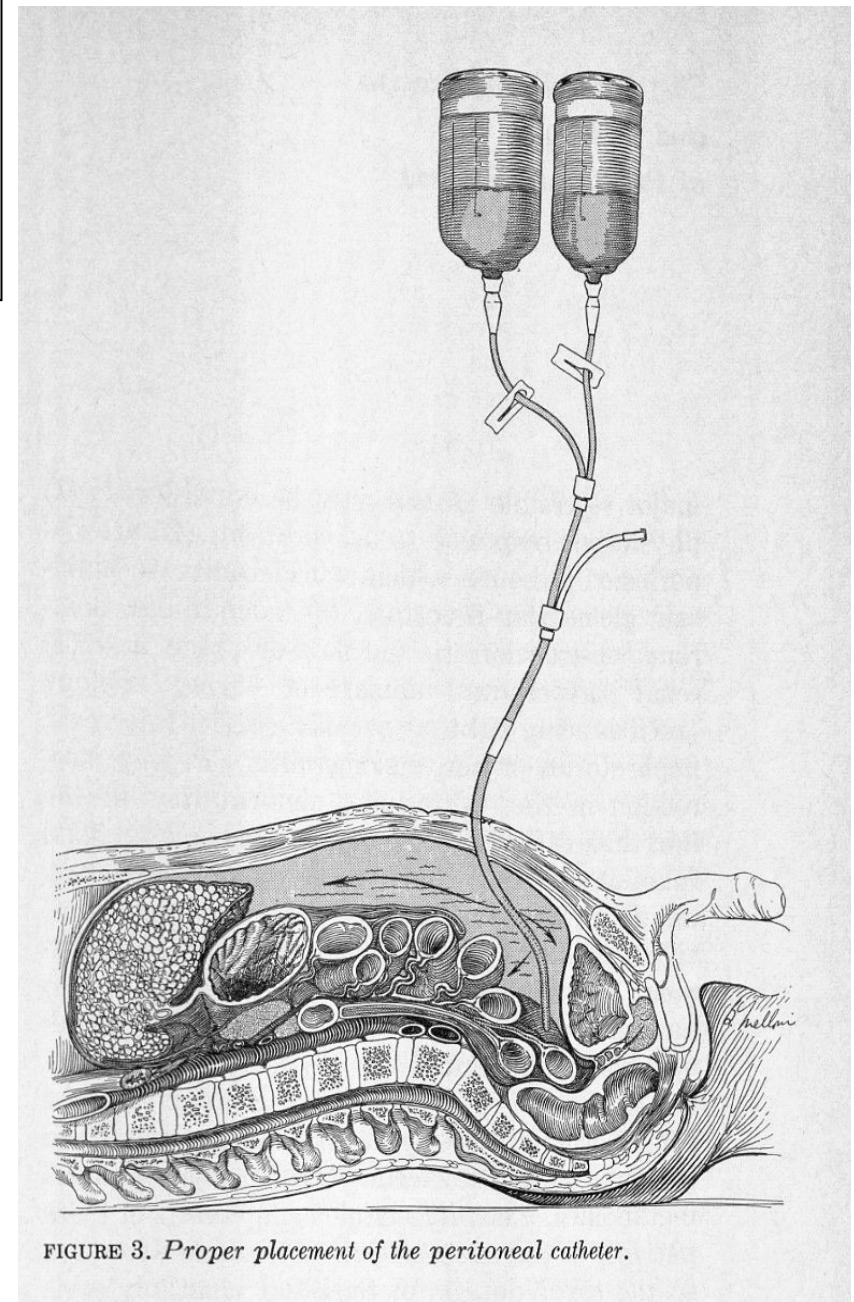
GP. 1963 Nov;28:98-109.

Flannigan WJ, Henderson LW, Merrill JP.

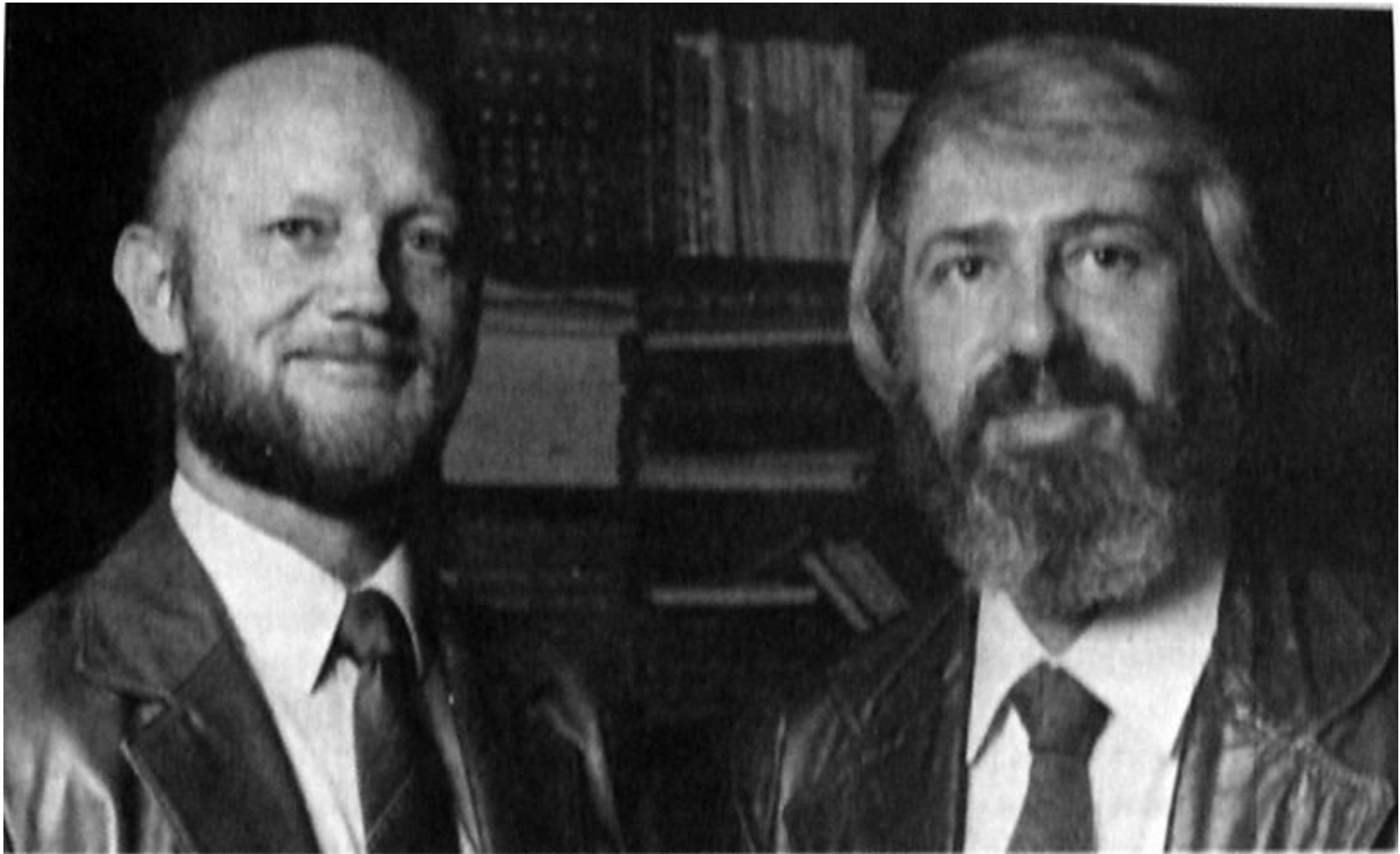
Further experience with the inlying plastic
conduit for chronic peritoneal
dialysis.

Trans Am Soc Artif Intern Organs.
1963;9:108-20.

Henderson LW, Merrill JP, Crane C.



**Jack Moncrieff and Bob Popovich, developers of the concept of
continuous ambulatory peritoneal dialysis (CAPD)
1976**

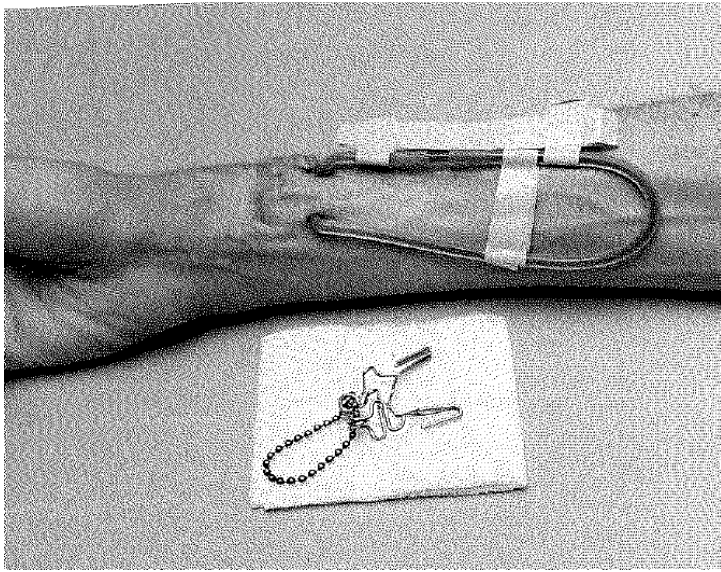




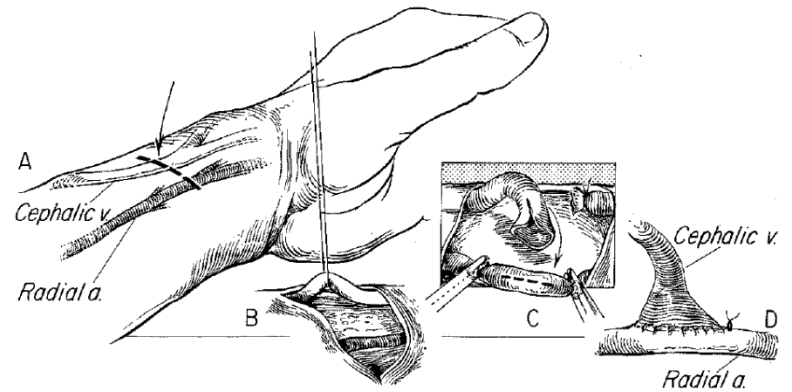
Dr. John P. Merrill (right), Director of PBBH Cardiorenal Section, presenting Dr. William E. Hesson, Jr., Director, with a grant check in the amount of \$100,000 from the American Medical Association Education and Research Foundation. The money was a bequest from Miss C. Doreen Youngs. The grant will finance construction of an additional floor, in the new medical research building, to be used in research in renal transplantation. →



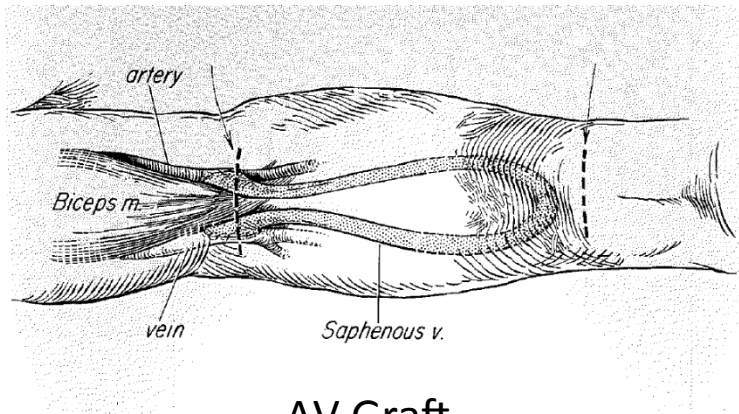
Kidney Foundation Makes Donation. The Massachusetts Kidney Foundation made a donation of \$24,000 to the PBBH Cardiorenal Fund to be used for support of the inter-hospital organ bank. There was a meeting of the Women's Committee on January 28, attended by columnist Ann Landers, at which Dr. Merrill expressed thanks for the donation. From left to right standing: Dr. C. B. Carpenter; Dr. George Bailey; Mrs. Yanofsky, President of the Women's Committee of the Kidney Foundation of Massachusetts; Mr. Robert Abramson, Kidney Foundation President; Dr. John P. Merrill; and seated, Dr. Ramon Patel, Director of the Tissue Typing Laboratory.



AV Shunt
~1960



AV Fistula
~1968



AV Graft
~ 1970

Hollow-fiber dialyzer developed in 1968



The first family of hollow-fiber dialyzers
(C-DAK, "Cordis Dow Artificial Kidney")

