

by transplantation will be available for approximately 450, and treatment by dialysis for approximately 550. Furthermore 750 patients from previous years will be maintained on chronic dialysis. The dialysis treatment will extend a patient's life as long as 9 years.

Current experience indicates a 15-percent mortality rate during the first year of hemodialysis and a 10-percent rate in subsequent years. Technically, chronic hemodialysis can be accomplished in either the home or in a dialysis center. The recent success and greatly reduced cost of home dialysis means that every possible saving should be granted the patient.

At the present time, there are four types of artificial kidneys using Cuprophane. They are the following (1) Kiil, (2) Klung (and Mini Klung), (3) Dialung and (4) Coil, developed by Extracorporeal Medical Specialities.

Hemodialysis is accomplished with an artificial kidney through which blood is circulated on one side of a cellophane membrane while the other side is bathed by a salt solution. The accumulated toxic products diffuse out of the blood into the bath solution, and the concentration and total amount of water and salts in the body fluids is adjusted by appropriate alteration in composition of the bath fluid. The cellophane membrane may take the form of a long coiled tube similar to a sausage casing (Travenol twin-coil kidney) which is immersed in a tub filled with bathing fluid, or it may be formed in flat sheets as in a sandwich (Kiil Dialung, Klung) with a layer of blood and bathing solution on opposite sides. Dialysis is generally performed two or sometimes three times weekly, and each dialysis period lasts for 6 to 16 hours.

The cost of treatment in various hemodialysis varies greatly. A center with a great deal of experience estimates that its current annual cost to be approximately \$10,000 per patient. In order to relieve the heavy workload which is placed on kidney treatment centers, a great deal of work has gone into the development of home kidney centers. The cost of chronic hemodialysis in the home varies widely both for initial capital equipment and for consumable supplies. One center recently reduced the cost of the complete home dialysis outfit from \$8,000 to \$6,000. They project a further reduction to \$5,000 if the prototype of another machine proves satisfactory. Other estimates for initial equipment were \$7,500, \$13,000 and \$4,200—\$6,000.

As the members of the committee can very quickly recognize, this is a severe financial drain upon people who are literally on the edge of death, anyway, so I have introduced a measure which would remove the tariff from Cuprophane.

Now, turning specifically to my bill, H.R. 13419, one finds that it places Cuprophane on the list of items to be imported into the United States free of duty.

Cuprophane is manufactured by the J. P. Bemberg Co., Wuppertal, Germany. This company has granted import rights to Mr. Vitalis von Plato, of Springfield, Pa. When entering the United States, Cuprophane has a 23-percent duty placed upon it or 20 percent of the value and 2.5 cents per pound. Mr. von Plato sells the Cuprophane then to either Cobe Laboratories, Inc., of Denver, Colo., or Extracorporeal Medical Specialties, Inc., of Mount Laurel, N.J. These laboratories cut Cuprophane membranes and sell them to hospitals and home patients.