



Dialysis

Submitted by
Henry Bey, Margaret Thomas
and Robert Fues

In October, 1967, we installed the MAKS 300 Central Delivery System at the Hines Veterans Administration Hospital. Prior to this system, which is capable of supplying dialysate fluid to several patients at the same time, our center used Kiil dialyzers and individual dialysate reservoirs. A central system permitted therapy of all chronic patients from a single reservoir. The central system, by making it unnecessary to clean and sterilize a dialysate tank for each treatment, reduced labor and space requirements for dialysis. As a result, the number of patients undergoing treatment could be increased.

The concept of a central delivery system was based on the theory that *all* patients with chronic uremia could undergo dialysis against a standard bath:

Dialysate Composition

Na	132	Acetate	33
Cl	100	K	0 to 1.5 as needed
Mg	1.0		

This is true except that potassium needs vary with each patient. The pre- and post-dialysis serum potassium levels of patients is monitored and potassium concentration in the bath is adjusted according to average patient needs.

During the first two years of operation, the system supplied fluid for over 6,546 dialyses. As many as eight patients have undergone dialysis simultaneously. We have found the central system to be very reliable.

In the first stages of operation following the installation of this equipment problems occurred which required two to three days down-time. In no case did errors in bath concentration occur.

A complete set of major parts is on hand and most repairs are made by our technical staff and our hospital medical equipment team.

There have been several instances in which concentrate and mix tank transfer valves cracked and leaked. On one occasion, the solenoid valve in the water supply intake burned out and failed to close.

In conclusion, we feel that savings in labor and dialysis preparation time have helped in adding patients to our program. The conductivity monitoring and the availability of negative pressure from -50 to -450 mmHg enables us to use 200 mg.% dextrose rather than higher concentrations. We are able to incorporate other dialyzers into our system, such as the coil canister, Dr. Lavender's mini, etc. The nursing and technical staff have more freedom and space for movement in the unit. This system has been an improvement for patient care.

OLSON MEDICAL PRODUCTS, INCORPORATED

50 Megunko Road
Ashland, Massachusetts
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