

## Appendix B. —Glossary of Terms and Acronyms

### Glossary of Terms

Artificial kidney: See *dialyzer*.

Coil dialyzer: A dialyzer in which the blood passes through semipermeable membrane tubing. The tubing is wound around itself, or “coiled” and a supporting screen separates the coils. The dialysate passes at a 90 degree angle through the space created by the screen.

Concentration ratio: The share of market output accounted for by the largest firms in an industry — usually by the four largest. Higher values are indicative of greater concentration of economic power and less competitiveness.

Continuous ambulatory peritoneal dialysis (CAPD): A form of peritoneal dialysis in which there is a continuous manual exchange of dialysate from the peritoneal cavity.

Continuous cycling peritoneal dialysis (CCPD): A form of peritoneal dialysis in which a machine cycles the dialysate in and out of the peritoneal cavity automatically about every 4 hours overnight as the patient sleeps.

Dialysate: A fluid that is used in the dialysis process, which contains desirable concentrations of physiological chemicals. During dialysis, the dialysate is separated from the patient's blood by a semipermeable membrane.

Dialyzer: A device used in hemodialysis. It consists of a compartment for the blood, a compartment for the dialysate, and a semipermeable membrane separating the two. The three principal types are coil, hollow fiber, and parallel plate.

End-stage renal disease (ESRD): A condition of irreversible kidney failure. Without treatment, the disease results in the patient's death.

Hemodialysis: A process by which blood is pumped from the patient's body into a dialyzer and then returned to the body in a continuous extracorporeal blood loop. While in the dialyzer the blood flows next to but separate from another fluid, a dialysate. The blood and the dialysate are separated from each other by a semipermeable membrane. Via diffusion and osmosis, waste products and other molecules pass through the semipermeable membrane and the blood can again take on its appropriate properties.

Hemodialyzer: See *dialyzer*.

Herfindahl index: A measure of economic market concentration. It is calculated by summing the squares of the market shares of the firms in the market. Higher values of the index indicate a greater degree of concentration and a less competitive market structure.

Hollow fiber dialyzer: A dialyzer containing thousands of hollow fibers bundled within a compact cylinder. Blood flows through the semipermeable hollow fibers while the dialysate passes outside the fibers.

Intermittent peritoneal dialysis (IPD): A form of peritoneal dialysis involving intermittent treatment three to four times per week. Typically, the patient is dialyzed for about 12 hours on each treatment.

Parallel plate dialyzer: A dialyzer consisting of a stack of semipermeable membranes sandwiched between support plates. Blood passes through the membranes while the dialysate passes in the opposite direction through grooves or spaces in the support plate.

Peritoneal dialysis: A process in which dialysis occurs within the patient's body rather than via an extracorporeal blood loop, as is done in hemodialysis. A permanent catheter is inserted into the abdomen and then dialysate is entered through the catheter into the peritoneal cavity. The fluid is allowed to remain for varying periods of time, during which dialysis occurs across the semipermeable peritoneal membrane. Later, the dialysate is drained out through the catheter and discarded.

Peritonitis: An inflammation of the peritoneum, the smooth transparent serous membrane that lines the cavity of the abdomen.

Prospective reimbursement: The setting of reimbursement rates prospectively, i.e., in advance of the actual provision of care. This is to be contrasted with cost-based or retrospective reimbursement, in which rates reflect actual costs incurred.

Reuse: With respect to dialysis, this occurs when a dialyzer, after its original use, is reprocessed, stored, and then used again on the same patient, often multiple times.

Transplantation: With respect to kidneys, the transplanting of a healthy kidney from a donor, “living or recently deceased,” into a patient with kidney disease.

### Glossary of Acronyms

CAPD	—continuous ambulatory peritoneal dialysis
CCPD	—continuous cycling peritoneal dialysis
ESRD	—end-stage renal disease
FDA	—Food and Drug Administration, Department of Health and Human Services
GAO	—General Accounting Office
GMP	—good manufacturing practices
HCFA	—Health Care Financing Administration, Department of Health and Human Services
IPD	—intermittent peritoneal dialysis

NIAD	National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, National Institutes of Health, Department of Health and Human Services	NMC	National Medical Care, Inc.
		OTA	Office of Technology Assessment, U.S. Congress
		R&D	research and development
NIH	- National Institutes of Health, Department of Health and Human Services	VA	Veterans Administration