CLAIMS:

1. Apparatus for performing continuous ambulatory peritoneal dialysis (CAPD) for a patient, said apparatus comprising:
   programmable circuitry on which a healthcare provider can enter prescription data;
   a user interface that is configured for the patient to enter data and to provide information to the patient, said information including at least sequential instructions to the patient to perform the CAPD treatment according to the prescription data;
   instruments for gathering treatment data including at least one of: dates and times when CAPD treatments are preformed; durations of flushing, filling and/or draining; quantities of dialysate solution used during flushing, filling and/or draining; and intraperitoneal hydrostatic pressure (IPP);
   a communication module configured to communicate the treatment data to the healthcare provider.

2. The apparatus according to claim 1, wherein the instruments for gathering treatment data include at least one weigh scale that is configured to weigh a dialysate solution container.

3. The apparatus according to claim 2, wherein the programmable circuitry is configured to convert variations in weight of said dialysate solution container to the quantity of dialysate solution used during flushing, filling and/or draining of the dialysate solution, and to convert variations in weight of said dialysate solution container over time to determine a flow rate of the dialysate solution.

4. The apparatus according to claim 1, in which the communication module is remote from the instruments for gathering treatment data, and the apparatus includes circuitry configured to time/date stamp the treatment data.

5. The apparatus according to claim 1, wherein the user interface is configured to obtain feedback that the CAPD treatment is being administered correctly, and

to log mistakes made by the patient, to provide an indication of the patient's ability to cope with the burden of treatment.

6. The apparatus according to claim 1, wherein the instruments for gathering treatment data include at least one flow management constrictor that is configured to measure the type of dialysate solution and concentration of said dialysate solution, said flow management constrictor containing photometric instruments and circuitry configured to convert chemical and physical properties of the dialysate solution to digital information.

7. The apparatus according to claim 6, wherein the circuitry of the flow management constrictor is configured to verify that the nature of the dialysate solution accords with the feedback provided by the patient on the user interface.

8. A system for performing comprehensive management of continuous ambulatory peritoneal dialysis (CAPD) for a patient, said system comprising apparatus according to claim 1, wherein the healthcare provider is remote from the apparatus for performing CAPD and the communication module is configured to communicate the treatment data to the healthcare provider, remotely.

9. A system according to claim 8, wherein the communication module is configured to allow the healthcare provider to enter prescription data remotely on the programmable circuitry, and to communicate the treatment data to the healthcare provider in real time.

10. A method of managing continuous ambulatory peritoneal dialysis (CAPD) of a person in need thereof, said method comprising:

entering prescription data on programmable circuitry;

generating interactive information and sequential instructions in the programmable circuitry, said interactive information and sequential instructions being for the performance of CAPD treatment according to the prescription data;

displaying the interactive information and sequential instructions on a user interface;

gathering treatment data including at least one of: dates and times when CAPD treatments are preformed; durations of flushing, filling and/or draining; quantities of a dialysate solution used during flushing, filling and/or draining; and intraperitoneal hydrostatic pressure (IPP); and

communicating the treatment data to a healthcare provider via a communication module.

11. The method according to claim 10, in which the step of gathering treatment data includes weighing at least one dialysate solution container on a weigh scale.

12. The method according to claim 10, in which the communication module is remote from locations where the CAPD treatments are performed and the treatment data are gathered, said method including time/date stamping the treatment data, and obtaining feedback from the person performing CAPD treatment via the user interface, that the CAPD treatments being administered correctly.

13. The method according to claim 10, which further includes:
aggregating the treatment data gathered for multiple said persons in need of CAPD, said treatment data including multiple parameters;
gathering and aggregating outcomes data for said persons; and
modelling expected likely outcomes of CAPD treatment as a function of said multiple parameters of treatment data, by reviewing said treatment data and outcomes data.

14. The method according to claim 13, which includes determining peritoneal equilibration test (PET) statuses for each of the persons in need of CAPD, and evaluating efficacy of PET against expected outcomes of CAPD.

15 The method according to claim 13, which includes assessing a combination of measurements that in isolation may not provide interpretation of meaning

however when considered together may provide invaluable information directly impacting response to the information.