Claims

1. A device for analysing spent peritoneal dialysate from a peritoneal dialysis apparatus, the device comprising:

a set of housings attachable to the peritoneal dialysis apparatus;

a set of test components disposed in the housings, each test component comprising one or more reagents for detecting one or more substances; and

a set of fluidic conduits connected to the housings, each fluidic conduit for communicating the dialysate from the peritoneal dialysis apparatus to a respective housing, each housing being sealed such that the dialysate remains within the respective housing,

wherein the test components are arranged for the reagents to react with the dialysate communicated to the housings and thereby detect the substances in the dialysate.

2. The device according to claim 1, wherein the fluidic conduits comprise a set of frangible seals that fluidically isolate the respective housings and are breakable to enable communication of the dialysate to the respective housings.

3. The device according to claim 1 or 2, further comprising a valve mechanism for selectively controlling communication of the dialysate through the fluidic conduits.

4. The device according to any one of claims 1 to 3, comprising:

a plurality of the housings attachable to the peritoneal dialysis apparatus;

a plurality of the test components disposed in the housings; and

a plurality of fluidic conduits each connected to the respective housing.

5. The device according to any one of claims 1 to 4, wherein the housings are attachable to the peritoneal dialysis apparatus by connecting the fluidic conduits to one of the following:

(a) a drain bag for collecting the dialysate discharged from the peritoneal dialysis apparatus;

(b) a transfer set tubing for connecting to a catheter of the peritoneal dialysis apparatus; and

(c) a drain tubing for discharging the dialysate.

6. The device according to any one of claims 1 to 4, wherein the housings are attachable inside a drain bag of the peritoneal dialysis apparatus for collecting the dialysate discharged therefrom, the fluidic conduits arranged for communicating the dialysate from the drain bag to the housings.

7. The device according to claim 6, further comprising the drain bag wherein the housings are attached inside the drain bag.

8. The device according to any one of claims 1 to 7, wherein the fluidic conduits are configured for regulating communication of the dialysate to the housings.

9. The device according to any one of claims 1 to 8, wherein fluidic conduits comprise a set of semipermeable membranes for regulating communication of the dialysate to the housings.

10. The device according to any one of claims 1 to 9, further comprising a set of mesh components disposed in the housings for regulated wetting of the test components by the dialysate.

11. The device according to any one of claims 1 to 10, wherein the reagents comprise a combination of compounds for detecting one or more of leukocytes, glucose, urea, creatinine, and ammonia.

12. The device according to any one of claims 1 to 11, wherein each test component comprises one or more demarcated areas, each demarcated area comprising at least one reagent for detecting a respective substance.

13. The device according to claim 12, each demarcated area further comprising:

an active area comprising the at least one reagent for detecting the respective substance; and

an inactive area comprising colour reference data for comparing colour changes in the active area.

14. The device according to claim 13, wherein the inactive area is divided into sub-areas according to activity levels of the respective substance.