CLAIMS

[Claim 1]. ~~A peritoneal dialysis concentrate comprising an all-in-one concentrate or at least two concentrate parts to be stored separately before use, wherein by a diluting solution, the all-in-one concentrate can be diluted or dissolved, or the at least two concentrate parts can be diluted or dissolved, and mixed with each other to obtain the peritoneal dialysis solution suitable for peritoneal dialysis treatment.~~ A peritoneal dialysis concentrate comprising an all-in-one concentrate, wherein by a diluting solution, the all-in-one concentrate can be diluted or dissolved, to obtain the peritoneal dialysis solution suitable for peritoneal dialysis treatment and, wherein the pH of the all-in-one concentrate is adjusted to be in a range of 4.0-8.0 by adding a pH adjusting agent before being diluted, and the pH of the all-in-one concentrate is in a range of 4.0-8.0 after being diluted, wherein the all-in-one concentrate contains at least one electrolyte salt, at least one buffering agent and at least one osmosis agent, and wherein the diluting solution is water for injection or water for injection directly generated from pure water or reverse osmosis water.

[Claim 2]. ~~The peritoneal dialysis concentrate according to claim 1, wherein the all-in-one concentrate contains at least one electrolyte salt, at least one buffering agent and at least one osmosis agent.~~ The peritoneal dialysis concentrate according to claim 1, wherein the pH adjusting agent is hydrochloric acid.

[Claim 3]. ~~The peritoneal dialysis concentrate according to claim 1, wherein the at least two concentrate parts comprise a first concentrate part and a second concentrate part, the first concentrate part at least contains at least one electrolyte salt and at least one osmosis agent, and the second concentrate part contains at least one buffering agent.~~ The peritoneal dialysis concentrate according to claim 1, wherein: the electrolyte salt includes one selected from a group consisting of salt of sodium, salt of calcium, salt of magnesium and any mixtures thereof; and/or the buffering agent is an alkaline buffering agent including one selected from a group consisting of sodium lactate, sodium bicarbonate and any mixtures thereof; and/or the osmosis agent includes one selected from a group consisting of dextrose, Icodextrin, glucose polymers, amino acids, small molecule crystal glycerin, sorbitol, fructose, macromolecule gel, cationic polymer, polypeptide and any mixtures thereof.

[Claim 4]. ~~The peritoneal dialysis concentrate according to claim 2, wherein the pH of the all-in-one concentrate is adjusted to be in a range of 4.0-8.0 by adding a pH adjusting agent before being diluted, and~~

~~the pH of the all-in-one concentrate is in a range of 4.0-8.0 after being diluted.~~ The peritoneal dialysis concentrate according to any one of claims 1 to 3, wherein: the peritoneal dialysis concentrate can be diluted 2-20 times to obtain the peritoneal dialysis solution.

[Claim 5]. ~~The peritoneal dialysis concentrate according to claim 3, wherein:~~

~~the pH of the first concentrate part is adjusted to be in a range of 1.0-4.0 by adding a pH adjusting agent; and/or~~

~~the second concentrate part is designed as a buffering solution having the pH of 6.5-8.0; and/or~~

~~the first concentrate part and/or the second concentrate part is in a form of liquid or fast-dissolving granules.~~ The peritoneal dialysis concentrate according to claim 4, wherein the peritoneal dialysis concentrate can be diluted 8-12 times.

[Claim 6]. ~~The peritoneal dialysis concentrate according to claim 4 or 5, wherein the pH adjusting agent is hydrochloric acid.~~ The peritoneal dialysis concentrate according to any one of claims 1 to 5, wherein the peritoneal dialysis solution can be used for a continuous ambulatory peritoneal dialysis or an automated peritoneal dialysis treatment; and/or the diluting solution is water for injection or water for injection directly generated from pure water or reverse osmosis water.

[Claim 7]. ~~The peritoneal dialysis concentrate according to claim 2 or 3, wherein:~~

~~the electrolyte salt includes one selected from a group consisting of salt of sodium, salt of calcium, salt of magnesium and any mixtures thereof; and/or~~

~~the buffering agent is an alkaline buffering agent including one selected from a group consisting of sodium lactate, sodium bicarbonate and any mixtures thereof; and/or~~

~~the osmosis agent includes one selected from a group consisting of dextrose, Icodextrin, glucose polymers, amino acids, small molecule crystal glycerin, sorbitol, fructose, macromolecule gel, cationic polymer, polypeptide and any mixtures thereof.~~ A single-chamber peritoneal dialysis bag comprising:

a single chamber for containing a peritoneal dialysis concentrate according to any one of claims 1-6;

a diluting solution tubing fluidly connected with the chamber for receiving a diluting solution from a diluting solution source; and

a connecting tubing fluidly connected with the chamber, wherein the diluting solution can be filled into the chamber via the diluting solution tubing to dilute or dissolve the peritoneal dialysis concentrate and obtain a peritoneal dialysis solution suitable for a peritoneal dialysis treatment via the connecting tubing.

[Claim 8]. ~~The peritoneal dialysis concentrate according to any one of claims 1 to 7, wherein:~~

~~the peritoneal dialysis concentrate can be diluted 2-20 times to obtain the peritoneal dialysis solution.~~ A dual-chamber peritoneal dialysis bag comprising:

a first chamber for containing a peritoneal dialysis concentrate according to any one of claims 1-6;

a second chamber separated from the first chamber by a peelable welding line;

a diluting solution tubing fluidly connected with the second chamber which is empty for receiving a diluting solution from a diluting solution source; and

a connecting tubing fluidly connected with the second chamber, wherein the diluting solution can be filled into the second chamber via the diluting solution tubing to break the peelable welding line such that the peritoneal dialysis concentrate is diluted or dissolved to obtain a peritoneal dialysis solution suitable for a peritoneal dialysis treatment via the connecting tubing.

[Claim 9]. ~~The peritoneal dialysis concentrate according to claim 8, wherein the peritoneal dialysis concentrate can be diluted 8-12 times.~~ A set for a continuous ambulatory peritoneal dialysis, wherein the set comprises the single-chamber peritoneal dialysis bag according to claim 7 or the dual-chamber peritoneal dialysis bag according to claim 8, which contains the peritoneal dialysis concentrate according to any one of claims 1-6.

[Claim 10]~~. The peritoneal dialysis concentrate according to any one of claims 1 to 9, wherein~~

~~the peritoneal dialysis solution can be used for a continuous ambulatory peritoneal dialysis or an automated peritoneal dialysis treatment; and/or~~

~~the diluting solution is water for injection or water for injection directly generated from pure water or reverse osmosis water.~~ A set for an automated peritoneal dialysis, wherein the set comprises the single-chamber peritoneal dialysis bag according to claim 7 or the dual-chamber peritoneal dialysis bag according to claim 8, which contains the peritoneal dialysis concentrate according to any one of claims 1-6.

~~11. A single-chamber peritoneal dialysis bag comprising:~~

~~a single chamber for containing a peritoneal dialysis concentrate;~~

~~a diluting solution tubing fluidly connected with the chamber for receiving a diluting solution from a diluting solution source; and~~

~~a connecting tubing fluidly connected with the chamber,~~

~~wherein the diluting solution can be filled into the chamber via the diluting solution tubing to dilute or dissolve the peritoneal dialysis concentrate and obtain a peritoneal dialysis solution suitable for a peritoneal dialysis treatment via the connecting tubing.~~

~~12. A dual-chamber peritoneal dialysis bag comprising:~~

~~a first chamber for containing a peritoneal dialysis concentrate;~~

~~a second chamber separated from the first chamber by a peelable welding line;~~

~~a diluting solution tubing fluidly connected with the second chamber which is~~

~~empty for receiving a diluting solution from a diluting solution source; and~~

~~a connecting tubing fluidly connected with the second chamber,~~

~~wherein the diluting solution can be filled into the second chamber via the diluting solution tubing to break the peelable welding line such that the peritoneal dialysis concentrate is diluted or dissolved to obtain a peritoneal dialysis solution suitable for a peritoneal dialysis treatment via the connecting tubing.~~

~~13. A multi-chamber peritoneal dialysis bag comprising:~~

~~at least four chambers being separated from each other by respective peelable welding lines, wherein at least two chambers of the at least four chambers for individually containing concentrate parts;~~

~~a diluting solution tubing fluidly connected with a first empty chamber of the at least four chambers for receiving a diluting solution from a diluting solution source; and~~

~~a connecting tubing fluidly connected with a second empty chamber of the at least four chambers,~~

~~wherein the diluting solution can be filled into the first empty chamber to break the peelable welding lines such that the diluting solution makes the concentrate parts diluted or dissolved, and mixed with each other to obtain a peritoneal dialysis solution suitable for a peritoneal dialysis treatment via the connecting tubing.~~

~~14. A set for a continuous ambulatory peritoneal dialysis, wherein the set comprises the single-chamber peritoneal dialysis bag according to claim 11 or the dual-chamber peritoneal dialysis bag according to claim 12 or the multi-chamber peritoneal dialysis bag according to claim 13, which contains the peritoneal dialysis concentrate according to any one of claims 1-10.~~

~~15. A set for an automated peritoneal dialysis, wherein the set comprises the single-chamber peritoneal dialysis bag according to claim 11 or the dual-chamber peritoneal dialysis bag according to claim 12 or the multi-chamber peritoneal dialysis bag according to claim 13, which contains the peritoneal dialysis concentrate according to any one of claims 1-10.~~