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(54) Title: BICARBONATE-BASED SOLUTION IN TWO PARTS FOR PERITONEAL DIALYSIS OR SUBSTITUTION IN
CONTINUOUS RENAL REPLACEMENT THERAPY

(57) Abstract: The present invention provides devices and methods for stabilizing bicarbonate-based solutions for peritoneal dialysis or hemofiltration. The bicarbonate-based solutions of the present invention are formulated and stored in at least two parts - an alkaline bicarbonate concentrate and an acidic concentrate. The alkaline bicarbonate concentrate is adjusted to have a pH of about 8.6 to 10.0. The acidic concentrate is adjusted to have a stable, acidic pH ranging from about 1.0 to 3.0. Upon mixing, although some variation in the pH of the mixed bicarbonate solution exists, the inventors have discovered that with the appropriate selection of the parameters of the concentrates, the pH of the mixed solution is always within an acceptable physiological range.