

Sodium and Bicarbonate Concentrations

The dialysate bicarbonate concentration impacts the range of dialysate sodium concentrations that the dialysis machine can deliver. For the Gambro Artis machine, please see the table below as a reference for the relevant dialysate bicarbonate, sodium and potassium concentration combinations. The intervention groups in the Dial-Bicarb trial are dialysate bicarbonate concentrations of 32 or 38 mmol/L. This means that dialysate sodium concentrations between 136 to 140 mmol/L, 135 to 140 mmol/L, 134 to 140 mmol/L, and 133 to 140 mmol/L can be delivered with the use of dialysate potassium concentrations of 1, 1.5, 2 and 3 mmol/L, respectively with the Gambro Artis machine (jug delivery system). Patients' dialysate sodium concentrations should be adjusted to fall within this range. If, for some reason, the treating nephrologist feels strongly that a patient should receive a dialysate sodium concentration outside of the stated achievable ranges, then that patient will not be able to receive their assigned dialysate bicarbonate as per the trial. Please be aware that patients cannot be opted out of trial data collection. A successful result for the Dial-Bicarb trial is dependent on nearly all patients receiving their assigned dialysate bicarbonate concentration; however, we recognize that a minority of patients may not be able to receive the intervention.

K-1.5 Central Delivery System		K-1Jug		K-2 Jug	
To achieve Na level of:	HC03 level must be adjusted to:	To achieve Na level of:	HC03 level must be adjusted to:	To achieve Na level of:	HC03 level must be adjusted to:
134 to 140	24 to 38	136 to 140	24 to 38	134 to 140	24 to 38
133	less than 36	135	less than 36	133	less than 36
132	less than 33	134	less than 33	132	less than 33
131	less than 30	133	less than 30	131	less than 30
130	less than 27	132	less than 27	130	less than 27
		131 & 130	not possible		
K-3 Central Delivery System		K-1.5 Jug		K-3 Jug	
To achieve Na level of:	HC03 level must be adjusted to:	To achieve Na level of:	HC03 level must be adjusted to:	To achieve Na level of:	HC03 level must be adjusted to:
135 to 140	24 to 38	135 to 140	24 to 38	133 to 140	25 to 38
134	less than 37	134	less than 37	132	less than 36
133	less than 34	133	less than 34	131	less than 33
132	less than 31	132	less than 31	130	less than 31
131	less than 28	131	less than 28		
130	less than 25	130	less than 25		