Intravenous Fluid Composition

IV Fluids					
Components	**Human Plasma**	**NS**	**LR**	**D5W**	**D5W ½ NS** (5% D5W in 0.45% NS)
Glucose (g/dL)	0.07-0.11	0	0	5	5
Sodium(mmol/L)	135-144	154	130	0	77
Chloride(mmol/L)	95-105	154	109	0	77
Potassium(mmol/L)	3.5-5.3	0	4	0	0
Buffer(mmol/L)	23-30	0	28	0	0
Calcium(mmol/L)	2.2-2.6	0	1.35	0	0
Magnesium(mmol/L)	0.8-1.2	0	0	0	0
pH(mmol/L)	7.35-7.45	4.5-7	6-7.5	3.5-6.5	3.5-6.5
Osmolarity(mOsml/L)	308	308	273	252	406
Osmolality(mOsm/kg)	288	286	254	--	--
Electrolyte-free water (%)	0	0	13	100	50

IV Fluid Selection		
Considerations	**Preferred**	**Avoid**
Hypernatremia	D5W	NS
Hyponatremia	NS	D5W
Hyperglycemia	NS, LR	D5W
Hypoglycemia	D5W	NS
TBI	NS	D5W

Reference:

1. Moritz ML, Ayus JC. Maintenance Intravenous Fluids in Acutely Ill Patients. New England Journal of Medicine [Internet]. 2015 [cited 2019Feb4];373(14):1350–60. Available from: https://www.nejm.org/doi/full/10.1056/NEJMra1412877