

CARDIOPLEGIC SOLUTION

Cardioplegic Description

Cardioplegic Solution is a sterile, nonpyrogenic, essentially isotonic, formulation of electrolytes in Water for Injection, USP. It is a “core solution” intended for use **only after addition of sodium bicarbonate** to adjust pH prior to administration. After buffering with sodium bicarbonate it is suitable for cardiac instillation (usually with hypothermia) to induce arrest during open heart surgery.

It is required that 10 mL (840 mg) of 8.4% Sodium Bicarbonate Injection, USP (10 mEq each of sodium and bicarbonate) be added aseptically and thoroughly mixed with each 1000 mL of Cardioplegic solution to adjust pH. After this addition, the solution must be stored under refrigeration and be used within 24 hours. The solution contains no bacteriostat, or antimicrobial agent and is intended only for use (after adjusting pH with sodium bicarbonate) in a single operative procedure. When smaller amounts are required, the unused portion should be discarded. Cardioplegic solution with added sodium bicarbonate used as a coronary artery infusate induces cardiac arrest, combats ischemic ionic disturbances, buffers ischemic acidosis and protects energy sources for functional recovery after ischemia.

Available dosage form in the hospital:20ML AMP

Common side effect:Intraoperative and perioperative potential hazards of open heart surgery include myocardial infarction, electrocardiographic abnormalities, and arrhythmias, including ventricular fibrillation. Spontaneous recovery after Cardioplegic cardiac arrest may be delayed or absent when circulation is restored. Defibrillation by electric shock may be required to restore normal cardiac function.

Pregnancy Risk Factor:C