

SUXAMETHONIUM (SUCCINYLCHOLINE)

ACTION and USES

Suxamethonium is an analogue of acetylcholine that activates (depolarises) the cholinergic receptors of the skeletal muscle end-plate leading to rapid, complete, flaccid muscle paralysis. Block is not reversible. Recovery is spontaneous. Phase 1 block is seen within 30 seconds of administration and usually lasts only 3 - 6 minutes. It has no effect on consciousness and does not provide any pain relief. It should not be given until the baby has had effective analgesia (morphine). In addition, the appropriate dose of [atropine](#) rescue must be drawn up in case it is required.

It is used to induce short term muscle paralysis in order to facilitate endotracheal intubation.

DOSAGE

IV: 2mg/kg

ADMINISTRATION

By rapid IV bolus

RECONSTITUTION

Suxamethonium is available as a solution containing 50mg/ml of suxamethonium chloride in 2ml ampoules. Reconstitution is not necessary but it should be diluted prior to administration.

Suxamethonium 10mg/ml

Dilute 0.2ml of suxamethonium 50mg/ml with 0.8ml of sodium chloride 0.9% and shake well to mix.

INCOMPATIBILITIES

Do not infuse or mix with alkaline solutions such as sodium bicarbonate or phenobarbital

STORAGE

Opened ampoule and diluted solution should be discarded immediately after use. Unopened ampoules are stored in the fridge protected from light.

MONITORING

Use of suxamethonium is contraindicated in hyperkalaemia, in patients with abnormal plasma cholinesterase activity, in cases where there is a family history of malignant hyperthermia, in congenital myotonic diseases and Duchenne muscular dystrophy. Caution should be used in hepatic impairment.

Never paralyse a baby unless you are sure that the airway can be maintained and effective ventilation given.

Monitor for salivation, bradycardia, tachycardia, arrhythmias (nodal rhythms, ventricular ectopics), muscle fasciculation and pain (including masseter spasm), hypertension, hypotension, hyperthermia, bronchospasm, myoglobinaemia. Neuromuscular block is enhanced by gentamicin, vancomycin, magnesium, morphine, betablockers and lidocaine. There is an increased risk of arrhythmias with digoxin.