The Use of Subcutaneous Sodium Valproate in Palliative Medicine

Indications for use	The treatment of generalised, partial or other epilepsy for short-term therapy, where oral treatment is not possible. In palliative medicine, sodium valproate is usually given via subcutaneous rather than IV infusion.
Preparations	Epilim®400mg powder and solvent for injection or infusion. Each box contains one vial of 400 mg of sodium valproate with one ampoule containing 4ml Water For Injection (WFI). For reconstitution, the 4ml of solvent should be injected into the vial and allowed to dissolve. The appropriate dose should then be withdrawn. The concentration of the reconstituted sodium valproate is 95mg/ml. This preparation is not licensed for subcutaneous administration.
Dose conversion from oral to subcutaneous (SC)	A 1:1 ratio between oral and subcutaneous routes should be used. Therefore, for those switching from oral sodium valproate, the initial dose by subcutaneous (SC) infusion should be the same as the previously administered total daily oral dose.
Doses	The usual dose for IV infusion is 500-800mg/day to a maximum of 2500mg/day. Administration by CSCI is unlicensed, however, there is evidence of clinical experience with doses of up to 1800mg via CSCI. The dose of sodium valproate should be titrated as per the patient 's clinical response. The half life of sodium valproate is 8-20 hours (potentially prolonged in older persons) and this should be considered where dose changes are being made, particularly in the elderly.
Rate of Infusion	Sodium valproate can be infused via CSCI over 24 hours. However, depending on the volume, two 12 hour syringe pumps may be required. In poorly controlled seizure activity, a shorter infusion could be considered.
Hepatic Impairment	Liver function tests should be performed before therapy is initiated. Sodium valproate is contraindicated in patients with personal or family history of severe hepatic dysfunction, especially if drug related. It should be avoided when possible in patients with hepatic impairment as hepatotoxicity and hepatic failure may occasionally occur.
Renal Impairment	It may be necessary to reduce the dosage in patients with renal insufficiency. The dosage should be adjusted according to clinical response.
Diluents	Sodium valproate should be diluted with Water for Injection (WFI). Sodium chloride 0.9% or Glucose 5% may also be used.
Compatibility Information	Sodium valproate should not be mixed in a syringe with other medications as there is no information regarding its compatibility with other medicines.
Cautions	Idiosyncratic, potentially fatal, hepatic failure may occur in patients, usually within the first 6 months of treatment. Symptoms (drowsiness, fatigue, vomiting, and increased seizure frequency) may precede altered LFTs. Valproate should be stopped if co-existent coagulopathy, severely deranged LFTs or rapidly evolving symptoms occur in the absence of an alternative explanation. Harmless ketone metabolites, detected by bedside urinalysis, may cause diagnostic confusion in diabetic patients. Sodium valproate is highly teratogenic and should not be used in women of child-bearing potential unless no alternative is available.
Drug Interactions	Sodium valproate has the potential to interact significantly with many medications which may result in either increased or decreased concentrations of this medication. Contact pharmacy for further advice.
Issues for Use in the Community	Epilim®400mg powder and solvent for solution for injection or infusion is not currently reimbursable on the General Medical Services (GMS) card or the Drugs Payment Scheme (DPS) card. Application may be made to the Essential Non-GMS scheme on behalf of the patient however the patient may have to incur the cost of sodium valproate treatment in the community.

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