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# Lidocaine for acute management of VT.

Step 1: Bolus: Lidocaine 2% injection (20mg/ml)

By intravenous injection, in patients without gross circulatory impairment

- 100mg (5mls) as a bolus over a few minutes, 50mg (2.5mls) in lighter patients or those whose circulation is severely impaired
- Follow immediately by intravenous infusion

Note: Following intravenous injection lidocaine has a short duration of action (lasting for 15-30mins). If an intravenous infusion is not immediately available the initial intravenous injection of 50-100mg can be repeated if necessary once or twice at intervals of not less than 10mins.

Step 2: Infusion: Lidocaine 0.2% in 500ml 5% Dextrose (2mg/ml)

Note: Pre-made bags are no longer available.

To prepare:

- Add 50ml (Ten 5ml ampoules) of Lidocaine 2% to 500ml Dextrose 5%
- Shake well

Infusion as follows:

Run at:	For:	Dose:
120ml/hr	30mins	4mg/min
60ml/hr	2 hours	2mg/min
30ml/hr	Maintenance	1mg/min

Reduce concentration further if infusion continued beyond 24hrs

Monitor: BP, ECG, U+E (correct low potassium, magnesium, phosphate), half-life increases (i.e. accumulates) over time – reduce dose of continuous infusion after 24 – 36 hours. Check neurological status, discontinue when cardiac condition stabilises or signs of toxicity.

Hepatic impairment: Caution – increases risk of side-effects.

Renal impairment: possible accumulation of lidocaine and active metabolite, caution in severe impairment.

Side-effects: dizziness, paraesthesia, drowsiness (particularly if injection too rapid), other CNS effects include confusion, respiratory depression and convulsions, hypotension and bradycardia (may lead to cardiac arrest), hypersensitivity reactions including anaphylaxis.