

## MLK Infusion Cheat-Sheet

To administer  
**Morphine at 0.1mg/kg/hr,**  
**Lidocaine at 50µg/kg/min,**  
**Ketamine 10µg/kg/min**

**Choose the rate at which you wish to administer the infusion.**

**10ml/kg/hr** is recommended where the infusion is the only fluid therapy being given and the infusion should be made up in a balanced poly-ionic solution such as Hartmanns solution. Care must be taken - increasing fluid rate in face of hypotension or blood loss will lead to overdose of the morphine, lidocaine and ketamine.

**1ml/kg/hr** is suitable in surgery where other sources of fluid therapy are included and the infusion 'piggybacked' onto the fluid therapy administration set. The benefit of this option is that changes in the fluid therapy rates will not affect the dose of infusion drugs given to the patient.

	10ml/kg/hr	5ml/kg/hr	1ml/kg/hr
<b>Morphine 10mg/ml</b>	10mg 1ml	20mg 2ml	100mg 10ml
<b>Morphine 15mg/ml</b>	0.66ml	1.33ml	6.66ml
<b>Morphine 30mg/ml</b>	0.33ml	0.66ml	3.33ml
<b>Lidocaine 20mg/ml</b>	300mg 15ml	600mg 30ml	3000mg 150ml
<b>Ketamine</b>	60mg 0.6ml	120mg 1.2ml	600mg 6.0ml
<b>* Volume to withdraw</b>	<b>17ml</b>	<b>33ml</b>	<b>162ml</b>

These figures are for a 1000ml (1 litre) bag of fluids. Use half the above volumes for 500ml bags. It is suggested that a single morphine concentration be stocked for the preparation of this solution and the appropriate line on the chart highlighted or the other lines obscured.

Discontinue ketamine use at end of surgery or signs of ketamine-induced excitement may be seen. A solution with half the above volume of ketamine can be continued into recovery or the ketamine omitted.

- \* DO NOT use lidocaine premixed with epinephrine. This could cause fatal hypertension or dysrhythmias.
- \* Withdraw this volume of fluid from a 1000ml (1 litre) bag of fluids prior to addition of any drugs. When using 500ml bags withdraw half the volume indicated.

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