

This information was up to date at the time of release to the Heads of Midwifery.

The editorial board does not accept liability for any errors or omissions following its subsequent publication.

Updating arrangements for the formulary should be decided upon and implemented at a local level.

This medicine is on the Midwives Exemption list; midwives are legally entitled to use it within their professional remit. A patient group direction is therefore not legally necessary to support the arrangement for the supply and administration of this medicine to women by midwives.

The NMC, however, recognises the use of this medicine for cannulation is not routine midwifery practice.

Midwives should therefore use this midwives exemption medicine for this purpose only after they have secured local agreement from the maternity team, including medical staff, and only following appropriate preparation and training.

<b>Lidocaine for cannulation</b>	
<b>Legal status</b> (GSL, P or POM on exemption list, or PGD)	<ul style="list-style-type: none"><li>▪ POM - midwife may administer as medicine is on midwives exemptions list</li></ul>
<b>Patient group</b>	Women requiring local anaesthetic prior to cannulation by a midwife.
<b>Clinical indication</b>	Infiltration anaesthesia prior to intravenous cannulation with a 16 gauge needle.
<b>Pharmacology</b> (Onset and duration of action where appropriate)	<p>It is an amide type local anaesthetic which inhibits the ionic reflexes required for the initiation and conduction of impulses, thereby stabilising the neuronal membrane and preventing pain signals being sent to the brain.</p> <p>It has important effects on the central nervous system and cardiovascular system, seen if accidentally administered intravenously or in overdose.</p> <p>It has a rapid onset of action and anaesthesia is obtained within a few minutes.</p>
<b>Pharmaceutical form, strength, route of administration</b>	Lidocaine Injection BP 1% w/v (10mg lidocaine hydrochloride per ml).  Intracutaneous, subcutaneous infiltration.
<b>Dose, frequency and maximum number of doses or period of time for administration or supply</b>	Up to 0.5ml of a 1% solution infiltrated at site of cannulation. Maximum of 3 doses.
<b>Contra-indications/exclusion criteria</b>	<ul style="list-style-type: none"><li>▪ complete heart block</li><li>▪ hypovolaemia</li><li>▪ known hypersensitivity to any component of the medicine</li><li>▪ known hypersensitivity to other anaesthetics of the amide type</li></ul>

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<b>Cautions and action that will be taken if a caution applies</b>	<ul style="list-style-type: none"><li>▪ epilepsy, myasthenia gravis, cardiac conduction disturbances, congestive heart failure, bradycardia severe shock, impaired respiratory function or impaired renal function with a CrCl &lt;10ml/minute. Lidocaine is metabolised in the liver and it should be used with caution in patients with impaired hepatic function. Lidocaine should not be used in cases of acute porphyrias.</li><li>▪ the effect of local anaesthetics may be reduced if the injection is made into an inflamed or infected area</li><li>▪ check for and document any allergies</li><li>▪ check and document past medical and drug history and current medication to ascertain potential for overdose</li><li>▪ if a caution applies consult with a doctor</li><li>▪ document consultation in maternity record</li></ul>
<b>Medicine interactions and action that will be taken if a patient is taking a medicine that may interact</b>	<ul style="list-style-type: none"><li>▪ cimetidine and beta-adrenoceptor blocking agents can impair the metabolism of lidocaine, which has been absorbed into the circulation - this is unlikely to be significant for these indications</li><li>▪ consult current BNF Appendix 1 for most up to date list</li><li>▪ if there is a clinically significant drug interaction, consult with a doctor before administration or supply</li><li>▪ document consultation in maternity record</li><li>▪ refer to current BNF for latest information on interactions</li></ul>
<b>Potential adverse reactions and side effects including actions to be taken if adverse medicine reaction is suspected</b>	<p><i>Allergic reactions are extremely rare but may be characterised by cutaneous lesions, urticaria, oedema or anaphylactoid reactions.</i></p> <p><i>Systemic reactions are rare when given by infiltration locally. If present these are usually associated with excessively high blood concentrations due to error in administration technique, which has resulted in intravenous injection, excessive dosage, rapid absorption or occasionally to hypersensitivity, idiosyncrasy or diminished tolerance on the part of the patient. If systemic effects occur, they involve the central nervous system (nervousness, dizziness, blurred vision and tremors, which may precede drowsiness, convulsions, unconsciousness and possible respiratory arrest) and or cardiovascular system (hypotension, myocardial depression, bradycardia and possible cardiac arrest).</i></p> <ul style="list-style-type: none"><li>▪ on labour - Nil</li><li>▪ on the neonate - fetal bradycardia, or neonatal bradycardia, hypotonia or respiratory depression in large doses</li><li>▪ on breast feeding - Nil for this indication</li></ul> <p>▪ if a serious adverse reaction is suspected please report to the MHRA Yellow Card Scheme <a href="http://yellowcard.mhra.gov.uk/">http://yellowcard.mhra.gov.uk/</a></p>

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<b>Overdose</b>	<ul style="list-style-type: none"> <li>▪ Central nervous system toxicity; paraesthesia around the mouth, numbness of the tongue, dizziness or light-headedness, drowsiness, coma, nervousness, over sensitivity to sounds and tinnitus. Visual disturbances and muscular tremors or muscle twitching and precede the onset of generalised convulsions. Hypoxia and hypercapnia occur rapidly following convulsions. In severe cases, apnoea may occur. Acidosis increases the toxic effects of local anaesthetics.</li> <li>▪ In severe cases; hypotension, bradycardia, arrhythmias and cardiac arrest may occur, with potentially fatal outcome.</li> <li>▪ Redistribution of the local anaesthetic drug from the central nervous system and metabolism results in recovery, and may be rapid unless large amounts of the drug have been injected.</li>   <li>▪ immediate assessment/treatment is essential - refer to medical staff</li> <li>▪ manage in accordance with established treatment guidelines or see BNF overdose section</li> <li>▪ for further advice contact National Poisons Centre 0344 892 0111</li> </ul>
<b>Action if patient declines</b>	<ul style="list-style-type: none"> <li>▪ refer to authorised prescriber or doctor</li> <li>▪ document in maternity record</li> </ul>
<b>Additional advice and information</b>	<ul style="list-style-type: none"> <li>▪ supply the manufacturer's patient information leaflet if requested</li> </ul>
<b>Patient monitoring arrangements during and after treatment and follow-up required</b>	<p>If analgesia is inadequate, refer to obstetric staff.</p>
<b>Particular storage requirements</b>	<p style="text-align: center;">-</p>
<b>References</b> <ol style="list-style-type: none"> <li>1. Summary of Product Characteristics Lidocaine HCl 1% injection (Hameln). Text revision 15.6.2015. Accessed 24.1.2020 <a href="http://www.medicines.org.uk">http://www.medicines.org.uk</a></li> <li>2. <a href="http://www.bnf.org">http://www.bnf.org</a></li> </ol>	