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.

Diamorphine

Legal status (GSL, P or POM on exemption list, or PGD)	▪ POM - midwife may administer as medicine is on midwives exemptions list **CD** – controlled drug
Patient group	Pregnant women who have requested the administration of opioid analgesia for pain relief during labour.
Clinical indication	The relief of pain caused by uterine contractions in labour.
Pharmacology (Onset and duration of action where appropriate)	Diamorphine is a pro-drug of morphine that is converted its active components of acetylmorphine and morphine. It is predominantly a central nervous system depressant but has stimulant actions resulting in nausea, vomiting and miosis. It has a rapid onset of action and duration of about 3-4 hours after IM route.
Pharmaceutical form, strength, route of administration	Diamorphine hydrochloride BP 5mg and 10mg ampoules as freeze dried powder, which when dissolved in an aqueous solution is suitable for parenteral administration. (Other strengths are available). Reconstitute with 1ml of sterile water for injections. For intramuscular injection.
Dose, frequency and maximum number of doses or period of time for administration or supply	The dosage is tailored to the individual patient in accordance with local guidelines. Consider anti emetic. Up to **10mg** IM (given with IM cyclizine or IM prochlorperazine - see monographs). Consider a reduced dose in women ≤ 50kg. A further 2 doses of diamorphine 5-10 mg IM can be given every 4 hours if necessary. A maximum of 3 doses to be given prior to referral to medical staff.
Contra-indications/exclusion criteria	▪ hypersensitivity to diamorphine or morphine ▪ women who have refused opioid analgesia ▪ myasthenia gravis ▪ respiratory depression ▪ obstructive airways disease ▪ biliary colic ▪ concurrent use of monoamine oxidase inhibitors or within 2 weeks of discontinuation of treatment ▪ phaeochromocytoma ▪ cerebral oedema head injury or raised intracranial pressure

Diamorphine	
Cautions and action that will be taken if a caution applies	▪ avoid in acute asthma attack and biliary disorders ▪ reduce dose in asthma and reduced respiratory reserves including severe obesity ▪ consider reduced dose in impaired renal or liver function, hypothyroidism, adrenocortical insufficiency, urethral stricture, hypotension, shock, inflammatory or obstructive bowel disorders, or convulsive disorders, toxic psychosis, CNS depression, kyphoscoliosis and acute alcoholism ▪ it can delay gastric emptying and increase the risk of Mendelson's Syndrome ▪ check for and document any allergies ▪ check and document past medical and drug history and current medication to ascertain potential for overdose ▪ if a caution applies consult with a doctor ▪ document consultation in maternity record
Medicine interactions and action that will be taken if a patient is taking a medicine that may interact	▪ additive effects with other CNS depressants including alcohol, hypnotics, anxiolytics, tricyclic antidepressants antipsychotics and sedating antihistamines ▪ increased risk of side effects with anti-cholinergic drugs, potentiation of effects of MAOI's (refer to BNF), advised to stop for 2 weeks before diamorphine use ▪ antagonise effects of metoclopramide and domperidone and increase likelihood of constipation with loperamide ▪ if there is a clinically significant drug interaction, consult with a doctor before administration or supply ▪ document consultation in maternity record ▪ refer to current BNF for latest information on interactions

Diamorphine	
Potential adverse reactions and side effects including actions to be taken if adverse medicine reaction is suspected	▪ *respiratory depression and arrest, circulatory depression, shock and cardiac arrest* ▪ *sedation, nausea, vomiting, constipation and sweating, anaphylactoid reactions* ▪ *bradycardia or tachycardia, facial flushing, postural hypotension and palpitations* ▪ *euphoria, dysphoria, weakness, insomnia, dizziness, confusional symptoms hallucinations* ▪ *dry mouth, taste alterations, anorexia and biliary spasm* ▪ *pruritus, urticaria, skin rashes and cramps* ▪ *difficulty with micturition, ureteric spasm, urinary retention, antidiuretic effect, dependence, raised intracranial pressure and miosis* ▪ *on labour - clinical practice suggests that it does not alter the force of contraction in established labour but it may temporarily suppresses uterine activity in early labour. It can delay gastric emptying and may increase the risk of Mendelson's Syndrome.* ▪ *on the neonate - it rapidly crosses the placenta, and severity of side effects depends on the dose and the time between the last dose and delivery. The half-life of diamorphine in the neonate is approximately 14 hours. Respiratory depression, urinary retention, constipation, and drowsiness resulting in poor feeding may occur. All adverse effects can be reversed by naloxone.* ▪ *on breast feeding- Nil at the recommended dose. Higher doses and continued use may cause CNS depression and constipation.* ▪ *if a serious adverse reaction is suspected please report to the MHRA Yellow Card Scheme http://yellowcard.mhra.gov.uk/*
Overdose	▪ respiratory depression, coma and constricted pupils is considered indicative of opioid over-dosage with dilatation of the pupils occurring as hypoxia develops ▪ pulmonary oedema is a common cause of fatalities among diamorphine addicts ▪ other opioid overdose symptoms include cold, clammy skin, hypotension, bradycardia, circulatory failure, muscle flaccidity, severe weakness, severe nervousness or restlessness, confusion, severe dizziness, severe drowsiness, hallucinations, convulsions, rhabdomyolysis progressing to renal failure. ▪ immediate assessment/treatment is essential - refer to medical staff ▪ manage in accordance with established treatment guidelines or see BNF overdose section ▪ for further advice contact National Poisons Centre 0344 892 0111
Action if patient declines	▪ refer to authorised prescriber or doctor ▪ document in maternity record
Additional advice and information	▪ supply the manufacturer's patient information leaflet if requested
Patient monitoring arrangements during and after treatment and follow-up required	If diamorphine is ineffective or inadequate discuss alternative analgesia with doctor/GP.

Diamorphine

Particular storage requirements	-

References

1. SPC for Diamorphine 5mg injection, Dexcel Pharma text revision 16.12.2019, accessed 16.12.19 www.medicines.org.uk
2. http://www.bnf.org