This information was up to date at the time of release to the Heads of Midwifery.
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Updating arrangements for the formulary should be decided upon and implemented at a local level.

Prochlorperazine

Legal status (GSL, P or POM on exemption list, or PGD)	▪ POM - midwife may administer parenterally since medicine is on midwives exemptions list
Patient group	For management of actual or potential nausea and vomiting.
Clinical indication	▪ antenatal nausea and vomiting in hyperemesis gravidarum as per local guideline ▪ nausea and vomiting associated with opioid analgesics during labour
Pharmacology (Onset and duration of action where appropriate)	Prochlorperazine is a phenothiazine type antiemetic. Additive sedation with an opioid is expected so lower dose of opioid analgesics maybe needed. Onset of action is 10-20 minutes and duration is 3-4 hours
Pharmaceutical form, strength, route of administration	A sterile solution for injection containing 12.5mg/ml of prochlorperazine mesilate in a ml ampoule. Prochlorperazine injection is supplied in packs of 5 or 10 ampoules . By deep IM injection.
Dose, frequency and maximum number of doses or period of time for administration or supply	12.5 mg by deep IM injection for a maximum of 2 doses, with an 8 hour gap between doses.
Contra-indications/exclusion criteria	▪ known hypersensitivity to any component of the medicine ▪ avoid in women hypersensitive to phenothiazines ▪ avoid in liver or renal dysfunction, hypothyroidism, cardiac failure, parkinson's disease, phaeochromocytoma, CNS depression, comatose states, and myasthenia gravis and those with a history of narrow angle glaucoma or agranulocytosis ▪ do not use if a contra-indication applies and refer to a doctor ▪ record consultation in maternity record

Prochlorperazine	
Cautions and action that will be taken if a caution applies	Monitoring closely in epilepsy or a history of seizures, as it may lower the seizure threshold. Agranulocytosis may occur. Monitor full blood count. Caution is also advised in cardiovascular disease, diabetes (may increase blood glucose), jaundice history, or severe respiratory disease It is imperative that treatment be discontinued in the event of unexplained fever, as this may be a sign of neuroleptic malignant syndrome (pallor, hyperthermia, autonomic dysfunction, altered consciousness, muscle rigidity). Signs of autonomic dysfunction, such as sweating and arterial instability, may precede the onset of hyperthermia and serve as early warning signs. Neuroleptic malignant syndrome may be idiosyncratic but, dehydration and organic brain disease are predisposing factors. May potentiate QT interval prolongation which increases risk of potentially fatal arrhythmias. If possible, risk factors such as cardiac disease, family history of QT prolongation; metabolic abnormalities such as hypokalaemia, hypocalcaemia or hypomagnesaemia; starvation, alcohol abuse, concomitant therapy with other drugs known to prolong the QT interval should be excluded before use. Avoid use in severe depression but it may be used with antidepressants. Postural hypotension with tachycardia, local pain or nodule formation may occur after IM use. Observe for dystonic reaction (see Potential adverse effects section). . ▪ check 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 before administration or supply ▪ document consultation in maternity record

Prochlorperazine	
Medicine interactions and action that will be taken if a patient is taking a medicine that may interact	The CNS depressant actions may be enhanced by alcohol, barbiturates and other sedatives and respiratory depression may occur. The hypotensive effect of most antihypertensive drugs especially alpha adrenoreceptor blocking agents may be exaggerated by neuroleptics Its effects may be enhanced by other anticholinergic agents such as cyclizine. There is an increased risk of agranulocytosis when used with eg carbamazepine or certain antibiotics. Increased risk of arrhythmias when antipsychotics are used with concomitant QT prolonging drugs (including certain antiarrhythmics, antidepressants and other antipsychotics) and drugs causing electrolyte imbalance. Simultaneous administration of desferrioxamine (administered in the event of an overdose of iron) and prochlorperazine has been observed to induce a transient metabolic encephalopathy characterised by a loss of consciousness for 48-72 hours. In patients treated concurrently with neuroleptics and lithium, there have been rare reports of neurotoxicity. ▪ if there is a clinically significant drug interaction consultation with a doctor is required before administration or supply ▪ record consultation in maternity record ▪ refer to current BNF for latest information on interactions

Prochlorperazine	
Potential adverse reactions and side effects including actions to be taken if adverse drug reaction is suspected	*Adrenaline must not be used in patients overdosed with prochlorperazine.* *Agranulocytosis is rare. Hyperprolactinaemia may result in galactorrhoea. Acute dystonia or dyskinesias, usually transitory are commoner in young adults and may occur within the first 4 days of treatment or after dosage increases. Glucose intolerance and hyperglycaemia, insomnia and agitation may occur.* *Cardiac disorders include QT prolongation, ST depression, U-Wave and T-Wave changes, ventricular arrhythmias and atrial arrhythmias, a-v block, ventricular tachycardia and fibrillation or cardiac arrest reported, possibly related to dosage. Pre-existing cardiac disease, hypokalaemia and concurrent tricyclic antidepressants may predispose. There have been isolated reports of sudden death.* *Postural hypotension is more likely in volume depleted subjects and after IM injection. Venous thromboembolism, including PE and DVT has been reported. Dry mouth may occur. Respiratory depression is possible in susceptible patients. Nasal stuffiness and skin rashes may occur. Jaundice is usually transient and rare.* *Neuroleptic malignant syndrome (see Cautions).* ▪ *on labour – it may prolong labour and therefore should be withheld until the cervix is dilated 3-4 cm* ▪ *on the neonate – exposure during the third trimester are at risk of adverse reactions including extrapyramidal and/or withdrawal symptoms that may vary in severity and duration following delivery. There have been reports of agitation, hypertonia, hypotonia, tremor, somnolence, respiratory distress, or feeding disorder. Consequently, newborns should be monitored carefully adverse effects may include lethargy or paradoxical hyperexcitability, tremor and low Apgar score* ▪ *on breast feeding – may increase prolactin level - monitor infant for sedation, avoid if baby is apnoeic* *If a serious adverse reaction is suspected please report to the MHRA Yellow Card Scheme via http://yellowcard.mhra.gov.uk/*
Overdose	Symptoms include drowsiness or loss of consciousness, hypotension, tachycardia, ECG changes, ventricular arrhythmias and hypothermia. Severe extrapyramidal dyskinesias may occur and usually respond to procyclidine 5-10 mg IM or IV. Circulatory collapse may occur and raising the patient's legs may suffice. Pronounced central nervous system depression requires airway maintenance or, in extreme circumstances, assisted respiration. Convulsions should be treated with intravenous diazepam. Avoid adrenaline in prochlorperazine overdose. ▪ 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

Prochlorperazine	
Action if patient declines	▪ refer to authorised prescriber or doctor ▪ document in maternity record
Additional advice and information	▪ advise to contact midwife/GP if condition worsens or symptoms persist ▪ supply the manufacturer's patient information leaflet
Patient monitoring arrangements during and after treatment and follow-up required	If prochlorperazine is ineffective discuss with a doctor. Document decision in maternity record.
Particular storage requirements	Protect product from light and store at room temperature. Discoloured solutions should not be used. Skin sensitisation may occur rarely in those frequently handling preparations.

References

1. Summary of Product Characteristics. Prochlorperazine Injection BP 12.5mg/ml, 1ml & 2ml, Advanz text revision 8.10.2019. Stemetil 12.5mg/ml injection. Aventis Pharma text revision 11.12.2019 http://www.medicines.org.uk Accessed 16.12.2019

2. http://www.bnf.org