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.

OXYTOCIN - Postpartum Haemorrhage (PPH)

Legal status (GSL, P or POM on exemption list, or PGD)	▪ POM – Midwife Exemption - midwife may administer parenterally.
Patient group	Women with postpartum haemorrhage (PPH) as a result of uterine atony and women at increased risk of PPH.
Clinical indication	Emergency treatment of PPH following delivery in accordance with the local Obstetric Haemorrhage Guideline. Progression through the treatment cascade must be taken into account.
Pharmacology (Onset and duration of action where appropriate)	Oxytocin is released by the pituitary gland and stimulates the smooth muscle of the uterus causing rhythmic contractions. In high doses such as used for management of third stage or PPH, it causes sustained uterine contraction. Onset of action is 2-3 minutes after IM injection. The plasma half-ife is approximately 3 to 20 minutes.
Pharmaceutical form, strength, route of administration	Oxytocin 10 units in a 1ml injection (Syntocinon®). For intramuscular injection
Dose, frequency and maximum number of doses or period of time of supply	**Emergency treatment of PPH** ▪ 10 units intramuscular (IM) injection (if not already given for third stage**).** ▪ Consider Syntometrine® by IM injection. ▪ Followed by an infusion of 40 units in 500ml sodium chloride 0.9% if necessary. Infuse at rate of 125ml/hour. Cannulate as soon as possible. Maximum of 50 units in total (excluding any Syntometrine®)
Writing of medicines by midwives: examples	**Write single dose on the "once only" section of Medicine Chart** I**npatient Single dose** **Medicine (Approved Name):** OXYTOCIN **Dose:** 10 units **Route:** IM **Inpatient Infusion** **Medicine (Approved Name):** OXYTOCIN **Dose:** 40 units in 500ml sodium chloride 0.9% **Route:** IV infusion **Notes:** rate 125mls/hour **SIGN and PRINT NAME followed by (MW)**

OXYTOCIN - Postpartum Haemorrhage (PPH)	
Contra-indications/exclusion criteria	▪ Known hypersensitivity to oxytocin or any of the components ▪ Avoid for prolonged periods in patients with oxytocin-resistant uterine inertia, severe pre-eclamptic toxaemia or severe cardiovascular disorders • Cardiovascular diseases (hypertrophic cardiomyopathy, valvular heart disease and/or ischaemic heart disease) to avoid significant changes in blood pressure and heart rate • Oxytocin should not be used for prolonged periods in patients with oxytocin-resistant uterine inertia, severe pre-eclamptic toxaemia or severe cardiovascular disorders
Cautions and action that will be taken if a caution applies	▪ Known 'long QT syndrome' or related conditions or taking drugs that are known to prolong the QTc interval. ▪ Age 35 years of age or over and complications during pregnancy and gestational age more than 40 weeks, as these are risk factors for disseminated intravascular coagulation ▪ Severe renal failure. ▪ Avoid prolonged use in severe pregnancy-.induced hypertension. ▪ Do not infuse via the same apparatus as blood or plasma or in any solution containing sodium metabisulphate. ▪ Check for and document any allergies. ▪ If a caution applies consult with a doctor. ▪ Document consultation in woman's maternity record.
Medicine interactions and action that will be taken if a patient is taking a medicine that may interact	▪ **Glucose infusion**: risk of water intoxication and hyponatremia - **do not** administer oxytocin in glucose. ▪ **Inhalation anaesthetics**(such as cyclopropane or halothane): can enhance its hypotensive effect and reduce oxytocic action and may cause cardiac arrrhythmias ▪ **Prostaglandins and analogues** (such as dinoprostone and carboprost): uterotonic effect can be potentiated. If used in sequence, monitor uterine activity carefully. ▪ **Vasocontrictors/Sympathomietics**(such as ephedrine and phenylephrine,used in caudal anaesthesia): risk hypertension ▪ **Drugs prolonging QT interval** (such as amitriptyline, clarithromycin, citalopram, clomipramine, chlorpromazine, ciprofloxacin, domperidone, erythromycin, escitalopram, fluconazole, fluoxetine, hydroxychloroquine, imipramine, lithium, methadone, ondansetron, promethazine, prochlorperazine quetiapine, sertraline, venlafaxine): greater risk of arrhythmias. ▪ **Medicines that are unlikely to be used during pregnancy and in the immediate postnatal period** (such as amiodarone, amisulpride, anagrelide, apomorphine, aripiprazole, artemether, asenapine, atomoxetine, azithromycin, benperidol, buserelin, chloroquine, clozapine, clofazimine, disopyramide, doxepin, dosulepin, droperidol, desipramine, delamanid, foscarnet, fluvoxamine, fluphenazine, flupentixol, fingolimod, dronedarone, granisetron, goserelin, haloperidol, hydroxyzine, ivabradine, levomepromazine, leuprorelin, lofexidine, lofepramine, lurasidone, mefloquine, levofloxacin, mizolastine, moxifloxacin, norfloxacin, nortriptyline, ofloxacin, olanzapine, pasireotide, perphenazine, pericyazine, pentamidine, paliperidone, palonosetron, pimozide, procainamide, risperidone, promazine, quinine, quinidine, sildenafil, saquinavir, solifenacin, sotalol, spiramycin, sulpiride, tacrolimus, tetrabenazine, tolterodine,

OXYTOCIN - Postpartum Haemorrhage (PPH)	
Continued **Medicine interactions and action that will be taken if a patient is taking a medicine that may interact**	trazodone, trifluoperazine, trimipramine, triptorelin, terlipressin, voriconazole, thioridazine, voriconazole, zuclopenthixol ▪ If there is a clinically significant drug interaction, consult an authorised prescriber and pharmacist before administration. ▪ Document consultation in woman's maternity record. ▪ Refer to current BNF for latest information on interactions.
Potential adverse reactions and side effects including actions to be taken if adverse medicine reaction is suspected	▪ **on labour** N/A ▪ **on neonate** N/Al ▪ **on breast feeding** None ▪ **Gastrointestinal:** nausea and vomiting ▪ **CNS:** headache ▪ **Immune system disorders**: anaphylactoid/anaphylactic reaction associated with dyspnoea, hypotension or shock ▪ **Cardiovascular:** tachycardia or bradycardia, cardiac arrhythmias, myocardial ischaemia, haemorrhage, rapid IV administration may lead to acute hypotension, myocardial ischaemia, electrocardiogram QTc prolongation ▪ **Haematological:** disseminated intravascular coagulation in women 35 years of age or over with complications during pregnancy and gestational age more than 40 weeks. ▪ **Respiratory**: acute pulmonary oedema. ▪ **Skin:** rashes, flushing, angioedema ▪ **Water intoxication:** with high doses over long periods using electrolyte-free solutions. Signs and symptoms include headache, nausea, vomiting, abdominal pain, lethargy, drowsiness and unconsciousness, grand-mal type seizures, low blood electrolytes such as hyponatraemia. *Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at*: http://www.mhra.gov.uk/yellowcard
Overdose	▪ In addition to symptoms in the adverse reactions section, uterine hyper-stimulation, or amniotic fluid embolism have occurred. ▪ Stop infusion immediately and deliver oxygen. Manage symptoms. ▪ Follow local guideline for dealing with these emergencies. ▪ Immediate assessment/treatment is essential - refer to doctor. ▪ Management in accordance with established treatment guidelines ▪ For further advice contact National Poisons Centre 0344 892 0111
Action if woman declines	▪ Refer to a doctor. ▪ Document in woman's maternity record
Additional advice and information	▪ Supply manufacturer's patient information leaflet if requested.

OXYTOCIN - Postpartum Haemorrhage (PPH)

Patient monitoring arrangements during and after treatment and follow-up required	▪ Use additional resuscitative measures or actions according to the current PPH guidelines. ▪ Due to risk of water intoxication restrict fluid intake by mouth. A fluid balance chart should be kept. ▪ Check full blood count and urea and electrolytes as per guideline. ▪ Note- symptoms of water intoxication include headache, anorexia, nausea, vomiting and abdominal pain, lethargy, drowsiness, unconsciousness and grand-mal type seizures and low serum electrolyte levels ▪ Remember to consider additional causes of bleeding such as soft tissue trauma, coagulation disorder and retained placental tissue. ▪ Refer all women to a doctor who have received oxytocin for PPH.
Particular storage requirements	Store in refrigerator 2 - 8°C May be stored at 30°C for up to 3 month (Mark revised expiry on box).

References

1. Summary of Product Characteristics Syntocinon (Mylan) text revision 6.6.2019. Accessed 17.12.2019 http://www.medicines.org.uk
2. http://www.bnf.org/