Domperidone

Lactation stimulation

Traffic light classification - GREEN
Information sheet for Primary Care Prescribers

Indication
Domperidone is the medicine of choice for lactation stimulation[1]. This is an off-licence indication (licensed for short term relief of nausea and vomiting[3]).

Only to be used if benefits outweigh risks and when other breastfeeding management techniques (regular feeding/ expressing, attachment optimisation) are in place and have failed.[2] Mother to be assessed and counselled by the breast-feeding specialist (may include a community midwife or other registered healthcare professional with experience in infant feeding support) requesting the prescription. Breastfeeding and breastmilk are important for optimal health long and short term for mother and baby[6].

The MHRA restricted licensed use of domperidone to nausea and vomiting following a review that confirmed a small increased risk of serious cardiac side effects. A higher risk was observed in people over 60 years of age, adults taking more than 30mg daily, those taking other QT prolonging medicines or CYP3A4 inhibitors. See medicines initiation, contraindication and precautions for more details[3].

Therapeutic Summary
Domperidone as a galactogogue. Domperidone is a dopamine antagonist. Specifically it works on peripheral dopamine receptors in the gastrointestinal wall and chemoreceptor trigger zone (CTZ) centre in the brainstem. Blocking the dopamine receptors results in increased prolactin levels.

Domperidone is the agent of choice for inadequate lactation because of its superior side effect profile (compared to metoclopramide), efficacy, and minimal passage into breast milk[1]. Analysis of pooled data demonstrated a relative increase of 74.72% in daily milk production with Domperidone treatment compared to placebo[4].

Medicine Initiation
GP to initiate following recommendation from a breast-feeding specialist (may include a community midwife or other registered healthcare professional with experience in infant feeding support) who has assessed the mother, optimised non-pharmaceutical measures and where the benefits of domperidone outweighs the risk. The breast-feeding specialist will support and counsel the mother.

Domperidone should only be considered when all other methods and support for increasing breastmilk are in place (assessment by a breastfeeding specialist, regular feeding/expressing (at least eight times in 24 hours), positioning, attachment optimisation (including consideration of other issues, such as tongue tie) and correct expressing technique)[5].

Advice should be given that domperidone may only be effective if accompanied with expressing both breasts, at least eight times per 24 hours, including overnight.[5]

Products Available

Domperidone 10mg tablets. Cost x 30 tablets is £0.73 (DT May 2022)

Dosage and Route of Administration
Oral domperidone 10mg THREE times a day[1].
It is recommended to take before meals. If taken after meals, absorption may be delayed[6].
See note about renal impairment below.

Duration of treatment
Domperidone should be prescribed for 7 days and then reviewed. Some evidence shows that the maximum effect is usually achieved within 7 to 14 days[1]. Continuation beyond 14 days is not supported by evidence.[5] It is unknown whether gradual withdrawal of domperidone is better for maintaining milk supply and a small number of case reports have suggested psychiatric withdrawal symptoms following discontinuation of domperidone[1]. In all of these cases, domperidone was used at higher than recommended doses and/or for prolonged periods. However, gradual withdrawal may reduce concerns about discontinuation.

MHRA guidance recommends that the maximum treatment duration should not usually exceed one week[1,3], therefore ongoing monitoring and support should continue whilst domperidone is in use and thereafter as necessary.

Side effects and criteria for review and discontinuation of the medicine
Rare adverse effects include headache, dizziness, abdominal cramps, dry mouth and allergic reactions.

Mothers should be advised to seek prompt medical attention if symptoms such as maternal syncope or palpitation arise or changes in the baby's behaviour occur.

Treatment with domperidone should be stopped if signs or symptoms occur that may be associated with cardiac arrhythmia. Patients should be advised to promptly report any cardiac symptoms.

Monitoring:
Monitor for signs and symptoms of cardiac arrythmia, e.g. maternal syncope or palpitation (see above).

Relevant Contraindications
- Where either mother or baby has underlying cardiac diseases such as congestive heart failure or known existing prolongation of cardiac conduction intervals, particularly QTc.
- Mother or baby is receiving other medications known to prolong QT interval or potent CYP3A4 inhibitors, note exception for apomorphine below. See list below.
- Severe hepatic impairment has been identified in mother or baby
- Mother or baby has significant known electrolyte disturbances e.g. high or low levels of potassium, or low levels of magnesium.
- Known hypersensitivity to domperidone or any of the excipients.
- Prolactin-releasing pituitary tumour (prolactinoma).
- When stimulation of gastric motility could be harmful e.g. in patients with gastro-intestinal haemorrhage, mechanical obstruction or perforation.

Precautions [6]
Renal Impairment
The elimination half-life of domperidone is prolonged in severe renal impairment. For repeated administration, the dosing frequency of domperidone should be reduced to once or twice daily depending on the severity of the impairment. The dose may also need to be reduced.

Clinically relevant medicine interactions and their management [6]

Concomitant use of the following substances is contraindicated

QTc prolonging medicinal products

- anti-arrhythmics class IA (e.g., disopyramide, hydroquinidine, quinidine)
- anti-arrhythmics class III (e.g., amiodarone, dofetilide, dronedarone, ibutilide, sotalol)
- certain anti-psychotics (e.g., haloperidol, pimozide, sertindole)
- certain anti-depressants (e.g., citalopram, escitalopram)
- certain antibiotics (e.g. , erythromycin, levofloxacin, moxifloxacin, spiramycin)
- certain antifungal agents (e.g., pentamidine)
- certain antimalarial agents (in particular halofantrine, lumefantrine)
- certain gastro-intestinal medicines (e.g., cisapride, dolasetron, prucalopride)
- certain antihistaminics (e.g., mequitazine, mizolastine)
- certain medicines used in cancer (e.g., toremifene, vandetanib, vincamine)
- certain other medicines (e.g., bepridil, diphemanil, methadone)
- apomorphine, unless the benefit of the co-administration outweighs the risks, and only if the recommended precautions for co-administration are strictly fulfilled. Please refer to the apomorphine SmPC.
- Potent CYP3A4 inhibitors (regardless of their QT prolonging effects), e.g.:
    - protease inhibitors
    - systemic azole antifungals
    - some macrolides (erythromycin, clarithromycin, telithromycin)

Concomitant use of the following substances is not recommended:

Moderate CYP3A4 inhibitors, e.g. diltiazem, verapamil and some macrolides.

Concomitant use of the following substances requires caution in use:

Caution with bradycardia and hypokalaemia-inducing medicines, as well as with the following macrolides involved in QT-interval prolongation: azithromycin and roxithromycin (clarithromycin is contra-indicated as it is a potent CYP3A4 inhibitor).

The above list of substances is representative and not exhaustive.

Patient Information

- Rare adverse effects include headache, dizziness, abdominal cramps, dry mouth and allergic reactions.
- Seek prompt medical attention if symptoms such as maternal syncope or palpitation arise during treatment.
- Mothers are advised to report any changes in their baby's behaviour immediately.
- Mothers should be given a copy of the information leaflet produced by The Breastfeeding Network.

References

1. Specialist Pharmacy Service. UK Drugs in Lactation Advisory Service. Using domperidone for low milk supply. 21 June 2024 Using domperidone for low milk supply – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice accessed 11/07/2021.
2. Nottinghamshire Joint Formulary. https://www.nottinghamshireformulary.nhs.uk Accessed 15/11/2021
3. Domperidone: risks of cardiac side effects. MHRA Drug Safety update. 11/12/2014. https://www.gov.uk/drug-safety-update/domperidone-risks-of-cardiac-side-effects
4. Osadchy A. Myla E. Moretti. & Koren G. (2012) Effect of domperidone on insufficient lactation in puerperal women: A systematic review and meta-analysis of randomized controlled trials. Obstetrics and Gynecology International Vol 2012, Article ID 642893 http://www.ncbi.nlm.nih.gov/pubmed/22461793
5. The Breastfeeding Network. Domperidone and breastfeeding. https://www.breastfeedingnetwork.org.uk/domperidone/ accessed 15/11/2021.
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Version Control- Draft V1.0			
Version	Author(s)	Date	Changes
1.1	Kate Morris & Jill Theobald, CCG medicines optimisation pharmacists	19/05/22	New document
1.2	Lynne Kennell, Interface pharmacist	11/07/2024	Updated duration of treatment and reference to discontinuation in line with updated SPS guidance