PRESCRIBING AND ADMINISTERING DRUGS

Purpose

The purpose of this standard is to describe CMO expectations regarding the prescribing and administering of drugs.

Midwifery standards of practice refer to the minimum standard of professional behaviour and clinical practice expected of midwives in Ontario.

Definition

Midwives have the requisite knowledge, skills, and judgment to prescribe drugs from the list of Designated Drugs. Any drug that can be administered by a midwife according to the Ontario Regulation 884/93 Designated Drugs can be prescribed by the midwife.

Standard

The authority of midwives, according to the Ontario Regulation 884/93 Designated Drugs, to initiate a prescription for a drug, is limited to treating conditions that they can diagnose and for which they can provide the necessary counseling, informed choice decision making and ongoing management of care.

In the course of engaging in the practice of midwifery, midwives may use any drug and may administer any substance by injection or inhalation on the order of a member of the College of Physicians and Surgeons of Ontario. Midwives may also administer, prescribe or order any drug or substance that may lawfully be purchased or acquired without a prescription.

TO ENSURE SAFETY

Midwives must:

- Assess the client, conducting laboratory and diagnostic investigations as appropriate
- Comply with relevant federal and provincial legislation
• Adhere to all relevant standards, guidelines or policies established by agencies or organizations (e.g., public health unit or blood banks) involved in the provision or control of any of the authorized drugs or substances
• Provide either a written, or when necessary, a telephone prescription or verbal order
• Consider whether the drug is a safe and effective treatment for the specific client circumstances
• Provide the client and/or client representative with the necessary information about the drug prescribed including expected therapeutic effect, potential side effects, contraindications and precautions
• Consider drug resistance, medication errors, infection control and safety, when they prescribe and/or administer any substance from the regulation
• Ensure there are adequate systems in place to prevent prescription fraud
• Ensure proper reporting of drug reactions and medication errors (Appendix 2, Reporting Adverse Drug Reactions and Medication Errors)
• Monitor the client’s response to the drug therapy after prescribing, and continue, adjust dosage or discontinue the drug therapy as appropriate.

RECORD KEEPING

Midwives must:

• Conduct a medical history and document the symptoms and/or conditions being treated
• Obtain a full understanding of the drugs the client is taking using the "Best Possible Medication History” (see Appendix 3 for an example of what can be included)
• Document in the client’s record, in a timely manner, all telephone prescriptions or verbal orders
• Provide a follow-up care plan as appropriate and document in the client’s record
• Document the client’s response to the drug therapy
• Ensure proper recognition and management of medication errors including documentation and reporting as outlined by Association of Ontario Midwives (Appendix 2, Reporting Adverse Drug Reactions and Medication Errors)
• Ensure proper risk management reporting when drug reactions or medication errors occur in a hospital (Appendix 2)
LEGAL PRESCRIPTION:

- Midwives may only prescribe drugs for the intended purpose as described in the Guideline to Prescribing and Administering Designated Drugs (below) and the amended Ontario Regulation 884/93 Designated Drugs.
- Midwives may not self-prescribe a drug, or prescribe a drug for a family member outside the provision of midwifery care, or when there is a conflict of interest. ¹
- Midwives will document the drug prescribed and the prescription number in the client’s record.

A legal prescription prepared by a midwife must include:

- A prescription number
- Full date (day, month and year)
- Client’s name
- Client’s address (if available)
- Name of drug, drug strength (where applicable), dose and the quantity of the prescribed drug
- Full instructions/directions for use of the prescribed drug
- Refill instructions, if any
- Printed name of the midwife prescriber with telephone number and address
- College registration number and the professional designation
- Midwife’s signature

MIDWIVES OBTAINING CONSULTS AND PROVIDING INTER-PROFESSIONAL CARE, RELATING TO PRESCRIPTIONS:

- May not delegate the act of prescribing a drug
- Notify any relevant health care provider involved in the client’s care when clinically appropriate and document that this notification has been given
- Consult with appropriate health care professional if the client’s response to the drug therapy is other than anticipated

¹ CMO Standard Caring for Related Persons
When midwives continue drug therapy initiated by another health care professional they must:

- Provide and document ongoing assessments
- Monitor and document the client’s response to the drug therapy
- Communicate the client’s response and change to or discontinuation of drug therapy to the initiating health care provider as appropriate
- Consult with appropriate health care professional at any point in the continuing drug therapy as appropriate

ENSURING APPROPRIATE STORAGE

Midwives must:

- Ensure recommendations for storage and handling issued by the medication/vaccine’s manufacturer are followed
- Dispose unused and expired medications/vaccines/blood products in accordance to the guidelines set forth by public health and blood bank

Guideline to Prescribing and Administering amended Ontario Regulation 884/93 Designated Drugs

The following guideline applies to the substances that have been added to the Ontario Regulation 884/93 Designated Drugs (as of February 2010), which midwives are able to independently prescribe and administer for their clients in the community, hospital or other sites of midwifery practice.

ANTIBIOTICS

When prescribing and administering antibiotics midwives are expected to adhere to recommendations to minimize the risk of developing antibiotic resistance. The safest effective available agent should be prescribed or administered.
Antibiotics, intravenous:

1. Group B Streptococcus

Ampicillin, Cefazolin, Clindamycin, Erythromycin, Penicillin G

Intravenous (IV) antibiotics may only be prescribed and administered on the member’s own responsibility to the expectant mother for the prophylaxis of neonatal Group B streptococcus during the intrapartum period.

When a pregnant woman requires treatment for or prophylaxis for Group B streptococcus and she is allergic to penicillin G, laboratory confirmation of drug sensitivities to the culture should be obtained to ensure that the most appropriate antibiotic is selected. Ampicillin is an alternative choice to penicillin, and cefazolin is recommended in penicillin allergic patients. In patients at high risk for anaphylaxis to penicillin, intravenous clindamycin or erythromycin is recommended.2

Intravenous antibiotics cannot be prescribed on the member’s own responsibility in any other situation.

Antibiotics, oral:

Oral antibiotics may only be prescribed by the member in the course of routine provision of midwifery care.

This includes treatment for:

1. Urinary tract infections (UTI) 3

Ciprofloxacin, Sulfamethoxazole-trimethoprim, Nitrofurantoin, Trimethoprim


3 Urinary tract infections in pregnancy, M Lee RPh, P Bozzo, A Einarson RN, G Koren MD
Oral (PO) antibiotics should be prescribed after culture and sensitivities have been identified. Sulfamethoxazole-trimethoprim and trimethoprim should be avoided in first trimester of pregnancy due to increased risk of neural tube defects (NTDs). If clinically required during first month of pregnancy, a high dose of folic acid (4mg/day) should be given to prevent NTDs.  

Sulfamethoxazole-trimethoprim should be avoided in the last 2 to 6 weeks of pregnancy since sulfonamides may displace bilirubin from albumin binding sites and cause kernicterus in infants, especially at preterm.

Fluoroquinolones (e.g., ciprofloxacin) should not be prescribed during pregnancy unless the benefit outweighs the risk and all other antibiotic options have been eliminated.

If symptoms persist after the prescribed course of treatment, a consultation with a physician is required.

2. Mastitis

Amoxicillin-clavulanic acid, Cephalexin, Ciprofloxacin, Clindamycin, Cloxacillin

Antibiotics are prescribed only for fever and signs and symptoms of blocked duct that do not resolve within 24 hours or are worsening quickly after non-pharmacological treatment.

If symptoms persist after the prescribed course of treatment, a consultation with a physician is required.

3. Bacterial Vaginosis

Clindamycin, Metronidazole

Women with a past history of premature labour and who have Bacterial Vaginosis (BV), whether or not it is symptomatic, may benefit from treatment with antibiotics. Bacterial vaginosis during pregnancy is associated with premature rupture of the
membranes, chorioamnionitis, preterm labour, preterm birth and post-cesarean delivery endometritis. During pregnancy, treatment is recommended for symptomatic patients and asymptomatic women with BV who have had a previous preterm birth. The goal is to reduce the risk of preterm prelabour rupture of the membranes and low birth weight.

If symptoms persist after the prescribed course of treatment, a consultation with a physician is required.

Antibiotics, topical:

1. Breast and Nipple Pain

**Mupirocin-betamethasone valerate-miconazole (All Purpose Nipple Ointment)**

Topical antibiotics may be used as part of a therapeutic regime for breast and nipple pain. All Purpose Nipple Ointment is a combination antibiotic, antifungal and low dose steroid cream that may be used to treat persistent nipple pain. It is used as a topical treatment for candidiasis of the nipple in the breastfeeding woman, with or without secondary bacterial infection. The cream should be applied sparingly to the nipples after each feeding and not washed or wiped off, even prior to the next feed. All Purpose Nipple Ointment is not recommended for use in pregnancy. While generally well tolerated, All Purpose Nipple Ointment should not be used over large areas of the skin, and is not intended for prolonged use. **If the condition has not improved within a week, a consultation with a physician is required.**

**NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (ORAL)**

1. Postpartum Pain

**Diclofenac, Naproxen**

Oral non-steroidal anti-inflammatory drugs (NSAIDs) may be used to treat postpartum pain. The general approach to the use of NSAIDs in any population is to use the lowest dose for the shortest period of time to reduce the risk of any adverse events including GI bleeding. NSAIDs should not be given to clients who are asthmatic or allergic to ASA. Ibuprofen is the least potent of the NSAID group and at formulations up to 400
mg is available as an OTC. Naproxen and acetaminophen have been proven to have the same effect on postpartum pain.  

**ANTI-HEMORRHAGICS AND OXYTOCICS**

1. Management of postpartum bleeding

**Carbetocin, Misoprostol**

Oxytocics and anti-hemorrhagics are to be administered for the management of postpartum bleeding on the member’s own responsibility. The choice of agent and method of administration will be dependant upon the clinical scenario and availability of these medications.

**Carbetocin - off label**

Carbetocin (e.g., Duratocin®) is approved for use in Canada for the prevention of uterine atony and postpartum hemorrhage following elective cesarean section under epidural or spinal anesthesia. It was shown to be effective for the off-label treatment of postpartum hemorrhage following vaginal birth, and is used as a second-or-third line agent in Ontario hospitals, used only after oxytocin and ergonovine maleate, where available, have been attempted.

*Midwives are not authorized to use Carbetocin to treat anything other than postpartum hemorrhage.*

**Misoprostol – off label**

Misoprostol is a synthetic prostaglandin Eanalogue that is approved for use as an antisecretory agent with protective effects on the GI mucosa. It was shown to be effective for the off-label treatment of postpartum uterine atony or postpartum hemorrhage uncontrolled by the use of oxytocin. Misoprostol is a second-or-third line agent, used only after oxytocin and ergonovine maleate, where available, have been attempted. Misoprostol should not be taken by anyone with a history of allergy to

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prostaglandins. If misoprostol is administered as a third line agent in response to a postpartum hemorrhage occurring out-of-hospital, transport to hospital and consultation with a physician is indicated. The use of misoprostol for prevention of PPH or for the induction of labour is currently under evaluation. Its use for induction of labour in the presence of a living fetus is restricted to clinical trials. Midwives CANNOT prescribe or order misoprostol for this application. However, where a physician has ordered misoprostol for induction of labour in a non-viable pregnancy, the midwife may continue to be involved in the woman’s care.

Midwives are not authorized to use Misoprostol to treat anything other than postpartum hemorrhage.

LOCAL ANESTHETICS

1. Perineal Repairs in Immediate Postpartum

Bupivacaine, Chloroprocaine

Local anesthetics are to be administered on the member’s own responsibility for the management of pain during the repair of the perineum in the immediate postpartum period. The choice of agent and method of administration will be dependent upon the clinical scenario, the local community standard and availability of these medications.

Bupivacaine (MARCAINE)

Amide local anesthetic for infiltration block anesthesia for use during perineal repair that is slightly slower acting (5-10 minutes) but has a longer duration of effect (2-4 hours). Lidocaine (Xylocaine) is an amide local anesthetic and remains available to midwives.

Chloroprocaine (NESACAIN)

Ester local anesthetic for infiltration block anesthesia for use during perineal repair, that is rapid acting and has a shorter duration of effect (less than 30 minutes). This local anesthetic is more likely to cause hypersensitivity.
All local anesthetics are approved for use by midwives only on perineal repairs in the immediate postpartum.

OTHER DRUGS

1. Domperidone – off label

Domperidone is an antidopaminergic drug approved for the treatment of nausea and vomiting. It has been used off-label to enhance breastmilk production in women where non-pharmacologic methods have proven ineffective and/or in women with a previous history of inadequate milk supply. Domperidone must not be given intravenously. Caution should be used in patients with hepatic disease and with those taking anticholinergics, since they may antagonize the effect of the domperidone in the GI tract. It should not be co-administered with ketoconazole due to the increased risk of QTc prolongation and associated heart arrhythmias.

Midwives are not approved to use Domperidone to treat anything other than inadequate milk supply.

2. Measles / Mumps / Rubella (MMR) Vaccine

(E.g., M-M-R® II, Priorix®) Women found to be rubella-susceptible during the antenatal period should be offered MMR vaccine in the immediate postpartum period. Women without detectable antibodies or no prior vaccination for rubella should be immunized only if they are not pregnant at vaccination time and if pregnancy is avoided for 1 month following vaccination. MMR vaccine should not be administered to individuals who are pregnant (the possible effect on the fetus is not known), have acute febrile respiratory or other infections, or any acute illness, have a history of sensitivity to neomycin or gelatin; have blood dyscrasias, lymphomas or other generalized malignancies; have untreated active tuberculosis; or are undergoing treatment with immunosuppressive agents of any kind. Breastfeeding is not a contraindication to receiving this vaccination. Whenever vaccines are administered the midwife must send a record of immunization to the physician to whom care is transferred at 6 weeks postpartum. A record of immunization should also be sent to the local public health unit in communities where this is required.
3. Varicella Zoster immune globulin

(E.g., VariZIGTM) Varicella zoster immune globulin is recommended for susceptible people, including pregnant women, provided that significant exposure has occurred. Administration of varicella zoster immune globulin is recommended for prevention or reduction of severity of maternal infections within 4 days of exposure to the varicella zoster virus. Greatest effectiveness of treatment is expected when it is begun within 4 days of exposure; treatment after 4 days is of uncertain value. Pregnant women may be at a higher risk of complications from chickenpox than healthy adults. The decision to administer varicella zoster immune globulin to a pregnant woman should be evaluated on an individual basis. The clinician should consider the patient's health status, type of exposure, and likelihood of previous unrecognized varicella infections before deciding whether to administer varicella zoster immune globulin. If after careful evaluation of all available information, which may include the use of reliable and sensitivity tests for varicella antibody, a normal pregnant woman with significant exposure to varicella is believed susceptible, varicella zoster immune globulin may be administered. It is not known whether it is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when varicella zoster immune globulin is administered to a nursing mother.
APPENDIX 1

Alphabetic List of Drugs in Midwives’ Authority

Any drugs that can be administered by a midwife according to the Ontario Regulation 884/93 Designated Drugs can be prescribed by the midwife.

The following drugs are designated in regulation as substances or drugs that midwives may administer by injection on their own responsibility:

- Ampicillin — for the purpose of preventing neonatal group B streptococcal disease
- Bupivacaine — for the purpose of local anaesthesia for episiotomy or the repair of tears
- Carbetocin
- Carboprost tromethamine
- Cefazolin — for the purpose of preventing neonatal group B streptococcal disease
- Chloroprocaine — for the purpose of local anaesthesia for episiotomy or the repair of tears
- Clindamycin — for the purpose of preventing neonatal group B streptococcal disease
- Dimenhydrinate
- Diphenhydramine hydrochloride
- Epinephrine hydrochloride
- Ergonovine maleate
- Erythromycin — for the purpose of preventing neonatal group B streptococcal disease
- Hepatitis B immune globulin
- Hepatitis B vaccine
- Intravenous fluids
- Lidocaine hydrochloride with or without epinephrine — for the purpose of local anaesthesia for episiotomy or the repair of tears
- Measles-mumps-rubella virus vaccine
- Oxytocin - for the purpose of treating postpartum hemorrhage
- Penicillin G — for the purpose of preventing neonatal group B streptococcal disease
- Phytonadione
- RhD immune globulin
- Varicella Zoster immune globulin
The following drugs are designated as drugs that midwives may **administer by inhalation** on their own responsibility:

- Nitrous oxide
- Therapeutic oxygen

The following drugs are designated as drugs that midwives may **prescribe** on their own responsibility:

- Amoxicillin-clavulanic acid — for the purpose of treating mastitis
- Cephalexin — for the purpose of treating mastitis
- Ciprofloxacin (oral)
- Clotrimazole
- Clindamycin (oral)
- Cloxacillin (oral)
- Diclofenac (oral)
- Domperidone — for the purpose of promoting lactation
- Doxylamine succinate-pyridoxine hydrochloride
- Ergonovine maleate (oral)
- Erythromycin ophthalmic ointment
- Folic acid (oral; greater than 1mg/dose)
- Hepatitis B immune globulin
- Hepatitis B vaccine
- Hydrocortisone anorectal therapy compound
- Metronidazole (oral)
- Miconazole
- Misoprostol — for the purpose of preventing postpartum hemorrhage
- Mupirocin-betamethasone valerate-miconazole (topical)
- Naproxen (oral)
- Nitrofurantoin — for the purpose of treating urinary tract infections
- Nystatin
- Phytonadione
- RhD immune globulin
- Sulfamethoxazole-trimethoprim (oral)
- Trimethoprim — for the purpose of treating urinary tract infections
APPENDIX 2

Reporting Adverse Drug Reactions and Medication Errors

Reporting Adverse Drug Reactions

You can report any suspected adverse drug reactions to drugs and other health products to the Canada Vigilance Program by visiting the Reporting Adverse Reactions to Drugs and Other Health Products page at: http://hc-sc.gc.ca/dhp-mps/medeff/report-declaration/reporting-declaration-eng.php

The site offers the Canada Vigilance Reporting Form for use in the reporting by health care professionals and clients via fax, mail, online or phone.

Canada Vigilance Regional Office phone 1 866-234-2345 and fax 1 866-234-678-6789

Reporting Medication Errors

Consider reporting any medication errors confidentially to The Institute for Safe Medication Practices Canada, an independent national non-profit agency. Contributing to this database provides information for the purpose of developing policies to prevent future adverse events. For information about this non-profit organization, go to their home page at http://www.ismp-canada.org, or their page with information about reporting medication incidents at Canadian Medication Incident Reporting and Prevention System (CMIRPS) http://www.ismp-canada.org/cmirps.htm.

For further information about incident reporting, refer to the AOM (www.aom.on.ca) and HIROC (www.hiroc.com) websites.
APPENDIX 3

Best Possible Medication History (BPMH)

Best Possible Medication History (BPMH) is a medication history obtained by a healthcare provider which includes a thorough history of all regular medication use (prescribed and non-prescribed), using a number of different sources of information. The BPMH is different and more comprehensive than a routine primary medication history (which is often a quick patient medication history).

The BPMH involves a:

1. Patient medication interview where possible.
2. Verification of medication information with more than one source as appropriate including:
   - family or caregiver
   - community pharmacists and physicians
   - inspection of medication vials
   - patient medication lists
   - medication profile from other facilities
   - prescription drug claim histories of Ontario Drug Benefit (ODB) recipients (Drug Profile Viewer)
   - previous patient health records

The BPMH includes drug name, dose, frequency and route of medications a patient is currently taking, even though it may be different from what was actually prescribed. Using tools such as a guide to gather the BPMH may be helpful for accuracy and efficiency. (A BPMH Interview Guide is available here).

If a patient is unable to participate in a medication interview, other sources may be utilized to obtain medication histories or clarify conflicting information. Other sources should never be a substitute for a thorough patient and/or family medication interview. For patients who present prescription bottles and/or a medication list, each individual medication and corresponding dosing instruction should be verified, if possible. Frequently, patients take medications differently than what is reflected on the
prescription label. Also, patients may not have updated their personal list with newly prescribed medications.  

Midwives should ensure that client’s reporting drug allergies are asked the extent and type of allergy, sensitivity or reaction they have had and this should be documented in the client’s record.

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