

Medications Commonly used in Maternal Newborn

Medication	Mechanism of Action/Use	Nursing considerations
Methotrexate	<u>MOA: Antimetabolite that depletes DNA precursors, inhibits DNA.</u> <u>Use: abortion</u>	<u>Do not give oral form with dairy products.</u> <u>Protect IV preparation from light.</u>
Mifepristone	<u>MOA: Antagonizes endometrial and myometrial effects of progesterone. Sensitizes the myometrium to contraction-inducing activity of prostaglandins.</u> <u>Use: abortion/miscarriage</u>	<u>Do not use with patients with bleeding disorders.</u>
Rhogam	<u>MOA: Suppresses the mother's immune response and antibody formation against the fetal Rh positive blood cells</u> <u>Use: prevent mother's antibodies from attacking baby</u>	<u>ensure informed consent is obtained</u>
Promethazine	<u>MOA: Acts on the CNS to prevent vomiting.</u> <u>Use: reduction of vomiting</u>	<u>May cause drowsiness or irritability</u>
Pyridoxine and Doxylamine	<u>MOA: Inhibits histaminergic signaling to the vomiting center in the medulla oblongata.</u> <u>Use: reduce nausea and vomiting during pregnancy.</u>	<u>Do not use with MAOI's.</u>
Ondansetron	<u>MOA: Blocks serotonin receptors.</u> <u>Use: help to relieve nausea and vomiting in pregnancy.</u>	<u>Do not take with apomorphine.</u>
Betamethasone	<u>MOA: stimulates synthesis and release of surfactant 2.</u> <u>Use: speeds up lung development in preterm infants.</u>	<u>Most effective if given between 2-7 days before baby' birth.</u>
Indomethacin	<u>MOA: inhibits the synthesis of prostaglandins (prostaglandins increase with uterine contractions).</u> <u>Use: To prevent preterm labor.</u>	<u>Do not give to pregnant women over 32 weeks gestation.</u>
Magnesium Sulfate	<u>MOA: inhibits calcium influx through dihydropyridine-sensitive channels.</u> <u>Use: to stop the progression and treat preeclampsia/eclampsia</u>	<u>Monitor for signs of magnesium overdose</u>
Terbutaline Sulfate	<u>MOA: beta-2 adrenergic receptor that activates adenylyl cyclase, decreasing calcium.</u> <u>Use: prevent or slow contractions of the uterus.</u>	<u>Do not use in patients with uncontrolled diabetes or hyperthyroidism.</u>
Glyburide	<u>MOA: closes ATP-sensitive potassium channels or pancreatic beta cells.</u> <u>Use: diabetic control during</u>	<u>Take 30 mins before eating meals.</u>

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	<u>pregnancy.</u>	
Insulin	<u>MOA: promotes glucose uptake and stimulates glycogen.</u> <u>Uses: to manage diabetes</u>	<u>Take 30 min before meals.</u> <u>Check blood glucose regularly.</u> <u>Rotate injection sites.</u>
Hydralazine hydrochloride	<u>MOA: inhibits calcium release leading to smooth muscle relaxation</u> <u>Use: lowers blood pressure in preeclampsia and eclampsia</u>	<u>Take on empty stomach.</u>
Labetalol	<u>MOA: blocks alpha- and beta-adrenergic receptors</u> <u>Use: treat acute hypertension</u>	<u>Check blood glucose of baby after birth.</u>
Nifedipine	<u>MOA: Blocks calcium channels</u> <u>Use: reduce/stop uterine contractions.</u>	<u>Monitor blood pressure</u>
Calcium gluconate	<u>MOA: increase calcium</u> <u>Use: treat hypocalcemia</u>	<u>Monitor for hypercalcemia</u>
Misoprostol	<u>MOA: prostaglandin E1 analogue</u> <u>Uses: abortion, miscarriage management, induction of labor and treatment of postpartum hemorrhage.</u>	<u>Do not use in early pregnancy.</u>
Cervidil	<u>MOA: regulation of calcium in cellular membrane</u> <u>Uses: cervical ripening and induction of labor</u>	<u>Monitor for anemia, hyper/hypotension</u>
Penicillin G	<u>MOA: inhibits biosynthesis of cell wall peptidoglycan</u> <u>Use: mother positive for syphilis</u>	<u>Only administer IM</u>
Methylergonovine	<u>MOA: Vasoconstriction</u> <u>Use: to control bleeding after birth.</u>	<u>Breast milk should not be used for 12 hours after last dose</u>
Nalbuphine (Nubain)	<u>MOA: agonist kappa-opioid receptor</u> <u>Use: labor pains</u>	<u>Monitor respiratory rate</u>
Naloxone--	<u>MOA: opioid antagonist</u> <u>Uses: opioid overdose,</u>	<u>Monitor blood pressure and respiratory rate closely</u>
Fentanyl	<u>MOA: binds to opioid receptor causing inhibition of nerve activity.</u> <u>Use: reduce pain</u>	<u>Monitor respiratory rate</u>
Ibuprofen	<u>MOA: Inhibits prostaglandin synthesis</u> <u>Use: to prevent preterm labor</u>	<u>Administer with food and monitor liver enzymes.</u> <u>Monitor for excessive bleeding</u>
acetaminophen	<u>MOA: inhibits COX pathway reducing pain</u> <u>Use: reduction of pain or fever</u>	<u>Monitor liver function</u>
oxycodone	<u>MOA: inhibits nociceptive neurotransmitters</u> <u>Use: reduction of pain</u>	<u>Monitor respiratory rate and blood pressure.</u>
hydrocodone	<u>MOA: opioid receptor agonist and</u>	<u>Monitor respiratory rate and blood</u>

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	<u>produces analgesic effects</u> <u>Use: pain reduction</u>	<u>pressure.</u>
ketorolac	<u>MOA: inhibits COX1-2 and reduces prostaglandin production.</u> <u>Use: reduction of pain and fever</u>	<u>Do not take after 30-week gestation.</u>
Hepatitis B vaccine	<u>MOA: increase hepatitis B antibodies</u> <u>Use: to protect from the hepatitis B virus</u>	<u>Monitor for reaction such as rash, fever and sweating.</u>
Erythromycin eye ointment	<u>MOA: inhibits protein synthesis</u> <u>Use: treat/prevent infections of the eye.</u>	<u>Monitor for adverse reaction</u>
Phytonadione	<u>MOA: binds calcium ions causing clotting factors to become active</u> <u>Use: helps baby's blood to clot</u>	<u>Monitor for bleeding/bruising.</u>
Prenatal vitamins	<u>MOA: increase vitamins</u> <u>Use: treat vitamin deficiency</u>	<u>Monitor for iron overdose</u>
MMR vaccine	<u>MOA: stimulates the production of MMR antibodies</u> <u>Use: protect from measles, mumps, and rubella viruses.</u>	<u>Monitor for adverse effects.</u>
Tetanus & reduced diphtheria toxoids/acellular pertussis vaccine	<u>MOA: stimulates the production of TDAP antibodies</u> <u>Use: To protect mother and baby from TDAP.</u>	<u>Monitor for adverse reactions.</u>
Lidocaine mucosal gel	<u>MOA: Blocks the action potential at postsynaptic neuron.</u> <u>Use: reduction of pain after birth (stitching).</u>	<u>Monitor for cardiac changes</u>