

## Medications Commonly used in Maternal Newborn

Medication	Mechanism of Action/Use	Nursing Considerations
Methotrexate	May exert immunosuppressive effects by inhibiting replication and function of T and possibly B lymphocytes, typically used to treat arthritis	Monitor CBC results, chest xray, liver and renal function tests, and urinalysis, insert injection into the abdomen or thigh
Mifepristone	inhibits the activity of endogenous or exogenous progesterone (medically induced abortion)	Inform patient that vaginal bleeding or cramping may occur, call provider with signs of weakness, nausea, vomiting, or diarrhea within 24 hours of administration
Rhogam	Suppresses the mother's immune response and antibody formation against the fetal Rh positive blood cells	Administer IM in the arm or thigh, match lot number and expiration date, confirm mother and babys blood type beforehand
Promethazine	Competes with histamine for H1 receptor sites, antagonizing many histamine effects and reducing allergy signs and symptoms	Use cautiously in children and elderly patients, inject IM deep into large muscle mass, monitor patient's hemotologic status
Pyridoxine and Doxylamine	<p>Pyridoxine: Pyridoxine increases the expression, activity and peroxisomal targeting of AGT-170 and enhances the functionality of AGT-170, AGT-152 and AGT-244 in CHO cells</p> <p>Doxylamine: Works by antagonizing the binding of free histamine at the H1-receptor binding sites. It antagonizes the effects of histamine in the uterus, GI tract, large blood vessels, and bronchial muscles</p>	Consult with nutritionist regarding the use of vitamins and diet. Not recommended in breastfeeding women
Ondansetron	Inhibits the vomiting reflex through stimulation of 5-HT3 receptors located on vagal afferents	Assess for dizziness and drowsiness, monitor patient's liver function tests, administer slowly via IV push or sublingual
	Works by binding to specific	Give before 9am, if systemic-

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Betamethasone	intracellular glucocorticoid receptors and then binds to DNA to modify gene expression	monitor for changes in personality
Indomethacin	Inhibits the synthesis of prostaglandins	Patient should take with food, can cause stomach/GI bleeding
Magnesium Sulfate	Assists all enzymes involved in phosphate transfer reactions that use adenosine triphosphate	Makes sure patients chew chewable tablets thoroughly before swallowing, avoid giving other oral drugs within two hours of magnesium containing antacid
Terbutaline Sulfate	Attaches to beta adrenergic receptors on muscles surrounding the air passages, causing the muscles to relax and dilate the air passages	Assess baseline pulse and BP before administration
Glyburide	Increases insulin secretion from beta cells in the pancreas	Patient should take at the same time every day, give before breakfast, glucose needs monitored frequently
Insulin	Binding to a glycoprotein receptor on the surface of the cell	Monitor glucose levels, educate on signs and symptoms of hypoglycemia/hyperglycemia
Hydralazine hydrochloride	Acts to inhibit inositol trisphosphate (IP3)-induced release of calcium from the smooth muscle cells sarcoplasmic reticulum and inhibits myosin phosphorylation within the arterial smooth muscle	Administer at a dosage of 10 mg via slow IV infusion with a maximum initial dose of 20 mg, educate on adverse effects such as flushing and headaches
Labetalol	Adrenergic receptor blocking agent that has both nonselective beta-adrenergic and selective alpha1 adrenergic receptor blocking actions	Closely monitor heart rate and blood pressure.
Nifedipine	Inhibits calcium ion from entering the “slow channels” or select voltage-sensitive areas of	Assess for anginal pain, including location, intensity, duration, and

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	vascular smooth muscle and myocardium during depolarization relaxation of coronary vascular smooth muscle and coronary vasodilation; increases myocardial oxygen delivery in patients with vasospastic angina; also reduces peripheral vascular resistance, producing a reduction in arterial blood pressure.	alleviating and aggravating factors
Calcium gluconate	Moderates nerve and muscle performance via action potential threshold regulation	Monitor calcium levels
Misoprostol	Misoprostol is a synthetic prostaglandin E1 analog that replaces the protective prostaglandins consumed with prostaglandin-inhibiting therapies (eg, NSAIDs); has been shown to induce uterine contractions	Avoid alcohol and GI irritating foods
Cervidil	Regulation of cellular membrane calcium transport and of intracellular concentrations of cyclic 3',5'-adenosine monophosphate	Inform patient to report side effects such as severe or prolonged headache, chills, fever, or GI problems.
Penicillin G	Inhibition of biosynthesis of cell-wall peptidoglycan, rendering the cell wall osmotically unstable	Monitor signs of allergic reactions and anaphylaxis
Methylergonovine	Increases the tone, rate and amplitude of contractions on the smooth muscles of the uterus, producing sustained contractions which shortens the third stage of labor and reduces blood loss.	Can pass into breast milk in small amounts and could affect a nursing baby

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Nalbuphine (Nubain)	Agonist of kappa opiate receptors and partial antagonist of mu opiate receptors in the CNS, causing inhibition of ascending pain pathways, altering the perception of and response to pain; produces generalized CNS depression	Monitor for respiratory depression and monitor vitals
Naloxone--	Pure opioid antagonist that competes and displaces opioids at opioid receptor site	May need to administer multiple times, opioid overdose
Fentanyl	Binds with stereospecific receptors at many sites within the CNS, increases pain threshold, alters pain reception, inhibits ascending pain pathways	Watch for respiratory depression, monitor vitals
Ibuprofen	Reversibly inhibits cyclooxygenase-1 and 2 (COX-1 and 2) enzymes, which results in decreased formation of prostaglandin precursors; has antipyretic, analgesic, and anti-inflammatory properties	Do not take more than recommended daily dose, do not take multiple NSAIDs at the same time, monitor for renal and GI s/s
acetaminophen	Inhibits enzyme cyclooxygenase, blocking prostaglandin production and interfering with Pain impulse generation in the peripheral nervous system.	Confirm the patient is not taking other medications that contain acetaminophen, monitor the patient For signs of liver toxicity such as severe nausea and vomiting
oxycodone	Binds to opiate receptors in the CNS, causing inhibition of ascending pain pathways, altering the perception of and response to pain; produces generalized CNS depression	Monitor for respiratory depression; monitor v/s
hydrocodone	Binds to opioid receptors in the CNS, causing inhibition of	Monitor for respiratory depression; monitor v/s

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ketorolac	Reversibly inhibits cyclooxygenase-1 and 2 (COX-1 and 2) enzymes, which results in decreased formation of prostaglandin precursors; has antipyretic, analgesic, and anti-inflammatory properties	Do not take multiple NSAIDs at one time
Hepatitis B vaccine	It invades the liver cells and uses the cells' function to replicate within it. The hepatitis B virus will bind to the hepatocyte via the preS domain of the viral surface antigen. The cell then engulfs the virus in a process called endocytosis.	Additional doses may be required for individuals with a suppressed immune system. Correct cold chain vaccine storage should be ensured. The injection site batch number and expiry date should be recorded in the patient record
Erythromycin eye ointment	Works by binding to the 50s subunit of the bacterial rRNA complex, protein synthesis and subsequent structure and function processes critical for life or replication are inhibited, used in newborns	Monitor vital signs especially heart rate for arrhythmias Monitor for signs of adverse effects Observe for signs of renal, hepatic and hematological dysfunction during prolonged therapy
Phytonadione	Catalyzes the hepatic synthesis of blood-clotting factors	Given IM
Prenatal vitamins	Helps prevent vitamin deficiency due to poor diet, certain illnesses, or during pregnancy	Use as instructed, avoid taking antacids, dairy products, tea, or coffee within 2 hours before or after
MMR vaccine	Contains live attenuated (weakened) forms of the measles, mumps, and rubella viruses. The vaccine works by stimulating our immune system to produce antibodies.	Cannot receive while pregnant
Tetanus & reduced diphtheria toxoids/acellular	The vaccine produces an active immune response of the body by	Can receive while pregnant

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pertussis vaccine	developing antibodies and antitoxins against the toxoids and acellular pertussis antigens.	
Lidocaine mucosal gel	Stabilizes the neuronal membrane by inhibiting the ionic fluxes required for the initiation and conduction of impulses, thereby effecting local anesthetic action	If administered as an antiarrhythmic the nurse should monitor the ECG continuously. Only use ointments for short periods as they can be absorbed through the rectal mucosa.