Medications Commonly used in Maternal Newborn

Medication	Mechanism of Action/Use	Nursing considerations
Methotrexate	Methotrexate inhibits inflammation to prevent joint damage. It also affects the replication and lymphocyte function (Nurse's Drug Handbook, 2023).	It is vital to monitor the patient for bleeding, infection, and several test results (CBC, chest-Xray, liver and renal function, and urinalysis. The patient should also increase their fluid intake to 2-3 L (NDH, 2023).
Mifepristone	It is utilized to terminate pregnancies up to 70 days gestation by blocking cortisol receptors (Drugbank, 2024).	Monitor the patient for heavier than usual bleeding, abdominal pain, uterine cramping, and diarrhea (Drugbank, 2024).
Rhogam	It is used to prevent isoimmunization during pregnancy or transfusion. Although the mechanism is unclear, it is suggested that Rhogam accelerated the phagocytosis of RBC's (Drugbank, 2024).	Monitor the patient for anemia, acute renal insufficiency, and hemolysis. Other symptoms include malaise, chills, headache, and injection site pain (Drugbank, 2024).
Promethazine	Promethazine has several forms of action. It can block receptor sites, provide sedation, antagonize histamine effects, and decrease vestibular stimulation and labyrinthine function (NDH, 2023).	Monitor patient's respiratory function because promethazine can depress respirations. Also monitor the patient's hematologic status because it can cause bone marrow depression as well (NDH, 2023).
Pyridoxine and Doxylamine	Doxylamine is used to treat insomnia and allergy symptoms. It is commonly used with pyridoxine, which treats nausea and vomiting due to pregnancy. It does this by inhibiting histamine receptors (Drugbank, 2024).	Monitor the patient for signs of an overdose which include but are not limited to: wheezing, fever, cyanosis, swelling of the face, and tightness of chest (Drugbank, 2024).
Ondansetron	Ondansetron inhibits serotonin receptors to reduce nausea and vomiting (NDH, 2023).	Monitor the patient for serotonin syndrome and hypersensitivity (NDH, 2023).
Betamethasone	It is used to relieve inflammation responses by inhibiting neutrophil apoptosis (Drugbank, 2024).	Monitor the patient's lung sounds, vitals, blood sugar levels, and labor status (Elsevier, 2024).
Indomethacin	It inhibits prostaglandins and cyclooxygenase activity, resulting in a reduction of inflammatory symptoms (NDH, 2023).	"Monitor the patient for thrombotic events, including MI and stroke because NSAIDS increase the risk" (NDH, 2023).
Magnesium Sulfate	It provides assistance with any	This drug cannot be metabolized. It

Medication	Mechanism of Action/Use	Nursing considerations
	enzyme that is directly involved in ATP. It also stimulates fluid secretion and intestinal motility (NDH, 2023).	sits in the GI tract until it is excreted thru stool. So, it is important to monitor the patient for early signs and symptoms of hypermagnesemia (NDH, 2023).
Terbutaline Sulfate	It activates beta2-adrenergic receptors within the lungs. This results in an increased airflow and relieving bronchospasm (NDH, 2023).	Monitor the patient's complete respiratory activity because extended use of this drug can decrease pulmonary function (NDH, 2023).
Glyburide	It incites insulin release from beta cells located in the pancreas (NDH, 2023).	There is a higher risk of hypoglycemia associated with this drug, especially for older adults and debilitated patients. Also, monitor the patient's fasting blood sugar and CBC closely to check how their body is responding to the drug, and any possible signs of hemolytic anemia (NDH, 2023).
Insulin	This drug can lower blood sugar levels by activating glucose uptake and inhibiting hepatic glucose production (NDH, 2023).	Monitor the patient for signs and symptoms of hypoglycemia and discontinue it if the patient exhibits a 20% or more decrease in pulmonary function (NDH, 2023).
Hydralazine hydrochloride	It can disrupt calcium motility, dilate arteries to minimize hypotension, and create a vasodilating effect on the smooth muscle (NDH, 2023).	If the patient exhibits lupus-like symptoms, discontinue immediately. Monitor the patient's CBC, B/P, and heart rate closely (NDH, 2023).
Labetalol	It serves as a barrier for alpha1 and beta2 receptors located in the vascular smooth and heart muscle. In turn, this reduces blood pressure (NDH, 2023).	If the patient stops using the medication abruptly, it can result in angina, MI, or arrhythmias. Monitor their blood sugar levels as well for any signs or symptoms of hypoglycemia (NDH, 2023).
Nifedipine	It can cause deformity of the calcium channels, which disrupts the calcium release. This will decrease myocardial demand (NDH, 2023).	Use cautiously in patients with cirrhosis and a galactose intolerance. Also monitor their I&O, daily weight and cardio/resp signs (NDH, 2023).
Calcium gluconate	It assists with maintaining homeostasis by increasing calcium levels. It also helps regulates hormones (NDH, 2023).	Assess the IV site regularly for signs of infiltration because it can lead to necrosis. Monitor calcium levels, aluminum toxicity, and asses for Chvostek's and Trousseau's signs (NDH, 2023).
Misoprostol	It takes place of the	"Monitor the patient's uterine

Medication	Mechanism of Action/Use	Nursing considerations
	prostaglandin production that is blocked by aspirin or NSAIDS to prevent stomach ulcers (Pope, 2022).	activity, FHR, and maternal vital signs" (Elsevier, 2024).
Cervidil	It induces contractions by stimulating the myometrium (Drugbank, 2024).	Monitor the patient's uterine tone, blood loss, vital signs, and side effects (Elsevier, 2024).
Penicillin G	It generates cell wall lysis by inhibiting the final stage of bacterial wall synthesis (NDH, 2023).	Asses patient for secondary infection, fluid overload, hypersensitivity reactions. Also, monitor the patient's sodium levels and look out for early signs of heart disease (NDH, 2023).
Methylergonovine	It acts on the smooth muscle of the uterus treats severe bleeding (Drugbank, 2024).	Monitor the patient for hypertension, seizures, headache, hypotension, nausea, and vomiting (Drugbank, 2024).
Nalbuphine (Nubain)	It alters the perception of pain by binding with kappa and muopiate receptors located in the spinal cord (NDH, 2023).	Make sure the patient doesn't become dependent on it because it is highly addictive. Monitor the patient for respiratory distress especially if they are taking other medications (NDH, 2023).
Naloxone--	This drug antagonizes receptors in the CNS (NDH, 2023).	Monitor the patient for opioid withdrawal symptoms. Educate the family on the importance of calling 911 if the patient isn't responding to repeated dosages (NDH, 2023).
Fentanyl	It binds to opioid receptors in the CNS in order to alter perception of emotional and pain responses (NDH, 2023).	Severe hypoventilation can occur, so it is vital to monitor the patient's respiratory status closely. Also monitor the patient for withdrawal symptoms and dependence (NDH, 2023).
Ibuprofen	It reduces inflammatory responses by inhibiting cyclooxygenase activity (NDH, 2023).	"Monitor the patient for thrombotic events, including MI and stroke because NSAIDS increase the risk" (NDH, 2023).
Acetaminophen	Intercepts with pain impulse by inhibiting cyclooxygenase activity (NDH, 2023).	Use cautiously in patients with hepatic impairment and make sure they do not exceed the maximum daily dosage (NDH, 2023).
Oxycodone	It affects emotional and pain responses by blocking the release of inhibitory neurotransmitters (NDH, 2023).	Monitor patients' level of consciousness closely and signs and symptoms of serotonin syndrome (NDH, 2023).
hydrocodone	It binds to mu opioid receptors	Monitor the patient for opioid

Medication	Mechanism of Action/Use	Nursing considerations
	and provides analgesic effects (Drugbank, 2024).	withdrawal symptoms and respiratory depression (Thorton, 2023).
ketorolac	It blocks synthetic prostaglandin pathways to mediate inflammation and pain (Drugbank, 2024).	Monitor signs of kidney toxicity and fluid retention (Drugbank, 2024).
Hepatitis B vaccine	“It induces specific humoral antibodies against HBsAg” (Drugbank, 2024).	Monitor for adverse reactions and hypersensitivity (Drugbank, 2024).
Erythromycin eye ointment	It prevents bacterial growth by stopping the assembly of the 50S ribosomal subunit (Drugbank, 2024).	Monitor for adverse reactions such as vomiting, diarrhea, and an allergic reaction (Drugbank, 2024).
Phytonadione	This is a fat-soluble vitamin (K1) used to treat hemorrhagic conditions in infants and coumatin overdoses. It does this by binding to calcium ions and restoring normal clotting functions (Drugbank, 2024).	Monitor the patient for side effects such as pain, rash, hyperbilirubinemia, and hypersensitivity (Elsevier, 2024).
Prenatal vitamins	This is typically a multivitamin used to treat vitamin deficiency caused by pregnancy. They are absorbed in the small intestine, and convert into the minerals needed within the body.	Monitor the patient for allergic reaction symptoms, upset stomach, headache, increased urination, and muscle weakness (Drugs.com, 2023)
MMR vaccine	This vaccine is a preventative measure for measles by helping the immune system generate antibodies to fight it.	Monitor the site injection and for adverse reactions. The patient may experience flu-like symptoms (Elsevier, 2024).
Tetanus & reduced diptheria toxoids/acellular pertussis vaccine	This vaccine is a preventative measure for Tdap by helping the immune system generate antibodies to fight it.	Monitor the site injection and for adverse reactions. The patient may experience flu-like symptoms (Elsevier, 2024).
Lidocaine mucosal gel	It is a local anesthetic that acts on sodium ion channels on the surface of nerve cell membranes (Drugbank, 2024).	Monitor the patient for systemic toxicity, tinnitus, and hypoxia (Drugbank, 2024).

Medications Commonly used in Maternal Newborn

Medication	Mechanism of Action/Use	Nursing considerations

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Medications Commonly used in Maternal Newborn

Medication	Mechanism of Action/Use	Nursing considerations

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