

## Pharmacology

**Prescription:** A physician's order for the preparation and administration of a drug or device for a patient.

**A prescription has several parts:**

- 1- The superscription or heading with the symbol "R" or "Rx", which stands for the word recipe (meaning, in Latin, to take)
- 2- It contains the names and quantities of the ingredients; the subscription or directions for compounding the drug; the signature which is often preceded by the sign "s" standing for signa (Latin for mark), giving the directions to be marked on the container.

### Medicine During Pregnancy

Although some medicines are considered safe during pregnancy, the effects of other medicines on unborn baby are unknown. Illegal drugs are never okay. Street drugs are not good for health, but they are even worse for unborn baby's drugs are passed to the baby during pregnancy. Illegal drugs such as angel dust, health, since cocaine, crack, heroin, LSD, marijuana, increase the chance that the baby is born with many possible problems. When a pregnant woman drinks alcohol or uses drugs during her pregnancy, so does her baby. These substances can pass through the placenta and to the baby through the umbilical cord. Alcohol, tobacco, and drugs can lead to premature birth, birth defects, low birth weight, placental abruption, fetal alcohol spectrum.

### Safe Medications to Take During Pregnancy

**Type of problem: Allergy**

Diphenhydramine (Benadryl®)

- Loratidine (Claritin®)
- Cetirizine (Zyrtec®)

## **Cold and Flu**

- Diphenhydramine (Benadryl)\*
- Dextromethorphan (Robitussin®)\*
- Guaifenesin (Mucinex® [plain]) \*
- Vicks Vapor Rub® mentholated cream
- Mentholated or non-mentholated cough drops
- (Sugar-free cough drops for gestational diabetes should not contain blends of herbs or aspartame)
- Pseudoephedrine ([Sudafed®] after 1st trimester)
- Acetaminophen (Tylenol®)\*
- Saline nasal drops or spray
- Warm salt/water gargle

## **Diarrhea**

- Loperamide ([Imodium®] after 1st trimester, for 24 hours only)

## **Constipation**

- Methylcellulose fiber (Citrucel®)
- Docusate (Colace®)
- psyllium (Fiberall®, Metamucil®)
- polycarbophil (FiberCon®)
- polyethylene glycol (MiraLAX®)\*

\*Occasional use only

## **First Aid Ointment**

- Bacitracin
- Neomycin/polymyxin B/bacitracin (Neosporin®)

## **Headache**

- Acetaminophen (Tylenol)

## **Heartburn**

- Aluminum hydroxide/magnesium carbonate (Gaviscon®)\*
- Famotidine (Pepcid AC®)
- Aluminum hydroxide/magnesium hydroxide (Maalox®)
- Calcium carbonate/magnesium carbonate (Mylanta®)
- Calcium carbonate (Titalac®, Tums®)
- Ranitidine (Zantac®)

\*Occasional use only

## **Hemorrhoids**

### **Safe Medications to Take During Pregnancy**

- Phenylephrine/mineral oil/petrolatum (Preparation H®)

### **Nausea and Vomiting**

Diphenhydramine (Benadryl)

- Vitamin B6

### **Rashes:**

- Diphenhydramine cream (Benadryl)
- Hydrocortisone cream or ointment
- Oatmeal bath (Aveeno®)

### **Sleep:**

Diphenhydramine

### **Safe Medications during Breastfeeding**

Many mothers need to take medications during breastfeeding. Although many drugs are safe to use when during breastfeeding, most will get into mother milk to some degree and may even affect her milk supply.

### **How the drugs go in to milk:**

The mammary tissue in the breast is composed of clusters of milk-producing alveolar cells surrounding a central lumen. The transfer of medication into breast milk is driven primarily by a concentration gradient that allows passive diffusion of non ionized and free (non-protein-bound) medication.

The drug concentration in breast milk is largely determined by the maternal serum drug concentration. This serum concentration tends to be lower with medications that have large volumes of distribution and fluctuates more with medications that have short half-lives. Retrograde diffusion of the drug from breast milk to plasma may remove a medication from the milk even if the mother has not emptied her breasts. Medications that are highly protein bound, that have large molecular weights or that are poorly lipid-soluble tend not to enter the breast milk in clinically important quantities.

In the early postpartum period, large gaps between the mammary alveolar cells allow many medications to pass through this milk that may not be able to enter mature ends on the drug's concentration in the breast milk and the amount of breast milk consumed milk. These gaps close by the second week of lactation. The nursing infant's drug exposure by the infant. The pharmacologic activity of the medication depends on its absorption, distribution, metabolism and elimination by the infant.

### **Specific Conditions:**

#### **ALLERGIC RHINITIS**

-Pseudoephedrine (Sudafed) is excreted in breast milk in small amounts. According to the AAP, its use is compatible with breastfeeding although it may cause decreased milk production.<sup>6,7</sup>

-Diphenhydramine (Benadryl), which is frequently prescribed for children, is also excreted in breast milk in small quantities. Either of these medications can cause lethargy or irritability in infants. To reduce the risk to the infant, the mother can take these medications immediately after breastfeeding.

#### **ASTHMA**

Inhaled steroids for the treatment of asthma achieve very low levels in maternal plasma and are of no concern for the breastfeeding mother.

-Fluticasone (Flovent) has the lowest serum levels of the inhaled steroids.

-Oral steroids such as prednisone (Deltasone) and prednisolone (Delta-Cortef) penetrate into the breast milk poorly and are safe for short-term use.

When daily dosages exceed 20 mg,

#### **CARDIOVASCULAR**

Diuretics and beta blockers, commonly preferred antihypertensives, are safe for use in lactating women, with some precautions. In general, it is preferable to avoid high dosages of any one medication by either changing medications or adding an additional agent.<sup>2</sup>

Low dosages of thiazide diuretics (e.g., 25 mg per day or less of hydrochlorothiazide [Esidrix]) are excreted in small amounts into the breast milk but do not suppress lactation and, consequently, are compatible with nursing.

Beta blockers vary widely in the amount excreted into breast milk.

Propranolol (Inderal), metoprolol (Lopressor) and labetalol (Normodyne) are excreted in small quantities and are compatible with breastfeeding even in compromised infants. Atenolol (Tenormin), nadolol (Corgard) and sotalol (Betapace) are excreted in higher amounts, which can lead to hypotension, bradycardia and tachypnea in the infant.