

MEDICATION CHART (OPIOIDS, BENZODIAZEPINES, OTHER)

(This chart is intended for clinicians who provide primary care to pregnant and postpartum women)

Data current as of December 2016

Generic Name	Trade Name	Usual Daily Dose	Maternal Risks	Fetal/Neonatal Risks	Relative infant dose=(RID)	Breastfeeding	
						Half-life (t _{1/2})/metabolites	Reported side effects in breastfed infants
DRUG CLASS: Opioids							
<ul style="list-style-type: none"> • Risk of dependence/abuse/misuse for all medications listed. • Abrupt discontinuation may precipitate withdrawal symptoms. • Neonates are at risk for neonatal abstinence syndrome (NAS)/neonatal opioid withdrawal syndrome (NOWS). 							
Buprenorphine	Subutex [®] , Suboxone [®] (contains naloxone)	4-24 mg for opioid dependence	• Side effects include sedation, dizziness, headache, nausea, and constipation	• Somatosensory disruption	0.09-1.9%	• 24-48 hr • 34 hr metabolite	• May moderate NAS symptoms
Codeine sulfate	various	60-360 mg for pain	• Side effects include sedation	• Respiratory depression	0.6-8.1%	• 3 hr	• Not recommended • CNS depression • Apnea • Sedation
Fentanyl	Actiq [®] , Duragesic [®] , Sublimaze [®]	• Patches deliver range of doses from 12 mcg/hr to 100 mcg/hr • Patches are typically changed q72hr	• Side effects include nausea and constipation, sedation	• CNS depression	2.9-5%	• 4 hr • 20-27 h	• Sedation • Respiratory depression
Hydrocodone/acetaminophen	Vicodin [®] , Lortab [®]	10-60 mg for pain	• Side effects include sedation, nausea, and vomiting	• Respiratory depression	2.2-3.7%	• 4 hr	• Possible sedation
Meperidine	Demerol [®]	200-400 mg for pain	• Dose may require adjustment during pregnancy	• CNS depression	1.1-13%	• 2-4 hr • 15-30 hr metabolite	• Not recommended • CNS depression
Methadone	Dolophine [®] , Methadose [®]	20-300 mg for pain, opioid dependence	• Side effects include anxiety, confusion, constipation	• Preterm birth	1.9-6.5%	• 13-55 hr	• May moderate NAS symptoms • Maternal dose may need to be decreased post-partum
Morphine	Duramorph [®] , Roxanol [®]	30-180 mg (PO) for pain	• Side effects include sedation, cramps, constipation, weight loss	• Low birth weight	9-35%	• 1.5-2 hr	• Sedation • CNS depression
Oxycodone	OxyContin [®] , Percodan [®] , Percocet [®]	5-60 mg for pain	• Side effects include sedation, pruritus, nausea, vomiting, and constipation	• Decreased head size	1-8%	• 2.0-4.4 hr	• Sedation • CNS depression
Oxymorphone	Opana [®]	20-60 mg for pain	• Side effects include sedation, pruritus, nausea, vomiting, and constipation	• No adverse morphologic consequences reported	N/A	• 7.3-9.4 hr	• Sedation • Respiratory depression
Tramadol	Ultram [®]	200-400 mg for pain	• Side effects include agitation, anxiety, pruritus, tremor, nausea, vomiting, diarrhea, and constipation	• No adverse morphologic consequences reported	2.9%	• 7 hrs • 85 hrs metabolites	• Limited data, consider alternative • Monitor for sedation and respiratory depression

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DRUG CLASS: Benzodiazepines (If necessary to use during breastfeeding, consider short-term or intermittent use with shorter-acting drugs.)							
Alprazolam	Xanax®	0.75-4 mg for anxiety, panic disorder	• Side effects include sedation, sedation, dizziness, headache, memory impairment	• Congenital anomalies • Withdrawal	8.5%	• 11-15 hr	• Preferred, if used intermittently • Withdrawal • Sedation
Chlordiazepoxide	Librium®	15-100 mg for anxiety	• Side effects include sedation, dizziness, headache, confusion, insomnia	• Congenital anomalies • Withdrawal	N/A	• 7-28 hr • 14-95 hr metabolites	• Not preferred agent (long half-life) • Unknown • Active metabolites
Clonazepam	Klonopin®	0.5-4.0 mg for panic disorder	• Side effects include ataxia, dizziness, and sedation	• Congenital heart disease • Respiratory depression • Hypotonia • Withdrawal	2.8%	• 18-50 hr	• Use with caution • Apnea, periodic breathing • CNS depression
Diazepam	Valium®	4-40 mg for anxiety	• Side effects include sedation and hypotonia	• Low birth weight • Decreased tone • Withdrawal	0.9-7%	• 30-40 hr	• Use with caution • Lethargy, sedation, and weight loss • Active metabolites
Lorazepam	Ativan®	2-6 mg for anxiety, insomnia	• Side effects include sedation, agitation, and tremor	• Anal atresia • Respiratory depression • Withdrawal • Feeding difficulties	2.6-2.9%	• 12 hr • 12-18 hr metabolite	• Preferred over longer acting agents • No adverse effects reported
Temazepam	Restoril®	7.5-30 mg for insomnia	• Side effects include lethargy, insomnia, irritability, dizziness	• Respiratory depression • Withdrawal	N/A	• 3-18 hr • 2 hr metabolites	• Short acting, limited data available • Sedation • Feeding difficulties
DRUG CLASS: Other							
Diphenhydramine	Benedryl®, Nytol®, Nyquil®	25-300 mg for insomnia, cough, cold symptoms	• Side effects include sedation and thickening of bronchial secretions • Possible decreased breast milk production	• Cleft palate • CNS depression	0.7-1.4%	• 48 hr • Up to 10.4 hr metabolite	• Sedation • Poor feeding • Anecdotal concerns of decreasing milk supply • Consider non-sedating antihistamines
Doxylamine	Dozile®, Unisom®	25mg for insomnia or nausea and vomiting of pregnancy	• Major effect is sedation • Possible decreased breast milk production	• No reports of adverse effects • Recommended medication for nausea/vomiting in pregnancy	N/A	• 10-13 hr	• Sedation or irritability with higher doses or prolonged use

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DRUG CLASS: Other							
Doxepin	Silenor®, Adapin®, Sinequan®	25-300 mg for anxiety, depression, insomnia	<ul style="list-style-type: none"> Major effect is sedation 	<ul style="list-style-type: none"> No reports of adverse effects CNS depression 	0.3-3%	<ul style="list-style-type: none"> 15 hr 31 hr metabolite 	<ul style="list-style-type: none"> Contraindicated Respiratory depression Hypotonia Sedation Irritability Active metabolite
Trazodone	Desyrel®, Donaren®	150-400 mg for insomnia; depression	<ul style="list-style-type: none"> Side effects include sedation, headache, dizziness, blurred vision, nausea, vomiting 	<ul style="list-style-type: none"> No reports of adverse effects Withdrawal 	2.8%	<ul style="list-style-type: none"> 4-9 hr 	<ul style="list-style-type: none"> Possible sedation Irritability
Zaleplon	Sonata®	10-20 mg for insomnia	<ul style="list-style-type: none"> Major effect is sedation Side effects include amnesia and dizziness 	<ul style="list-style-type: none"> No reports of adverse effects 	1.5%	<ul style="list-style-type: none"> 1 hr 	<ul style="list-style-type: none"> Possible sedation
Zolpidem	Ambien®	5-12.5 mg for insomnia	<ul style="list-style-type: none"> Major effect is sedation Side effects include dizziness 	<ul style="list-style-type: none"> Low birth weight; prematurity; growth restriction 	0.02-0.2%	<ul style="list-style-type: none"> 2.5-5 hr 	<ul style="list-style-type: none"> Possible sedation, respiratory depression

Selected References

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Comments

The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Variations in practice may be warranted.

- Medications vary in the amount and quality of data available about effects in human pregnancy. A better-studied medication may have more reported side effects than a less-studied medication because more is known about it, not necessarily because it is riskier.
- Data presented here are based on reports from and studies during human pregnancy.
- Risks of medications during pregnancy and lactation must be weighed against the risks of untreated symptoms. Treatment needs to be individualized.

- If a patient is on other medications, consult with a pharmacist or other appropriate specialists for interaction information.
- As of June 30, 2015, the FDA required the removal of the pregnancy categories A, B, C, D, and X from all human prescription drug and biological product labeling. Required labeling includes relevant information about pregnancy testing, contraception, and infertility for health care providers.

Breastfeeding and Medications

- Reported side effects in breastfeeding infants are based on case reports and case series.
- The infant's age, size, and stability are important criteria to evaluate prior to prescribing a medication for maternal use.
- Premature infants and neonates, in general, are at greater risk for adverse effects than older/more mature infants.
- Medically unstable infants may be at higher risk for adverse effects of maternal medications.
- Medications with a Relative Infant Dose (RID) less than 10%, are considered relatively safe to use.
- Choose drugs with a short half-life, high protein binding, low oral bioavailability, or high molecular weight.
- Avoid random switching of medications based on data alone. Choose drugs for which published data is available, rather than those recently introduced.
- Medications used in the first 3–4 days postpartum generally produce sub-clinical levels in the infant due to the limited volume of milk.
- Avoid using medications when possible. Avoid using unnecessary herbal drugs, high dose vitamins, unusual supplements, etc.
- Pediatric-approved drugs are generally less hazardous if long-term history of safety is recognized.

Adapted from Hale, T.W. & Rowe, H.E. (2014). *Medications and Mothers' Milk* (16th ed.) New York, NY: Springer Publishing Company.