PREGNANCY RELATED CONSIDERATIONS

These tables summarize specific considerations regarding benzodiazepine (BZD) use and tapering during pregnancy. These tables are intended to be a resource for clinicians implementing this Guideline in individuals who are pregnant or lactating.

Benzodiazepine Tapering Considerations by Pregnancy Trimester

	1st Trimester	2nd Trimester	3rd Trimester	Postpartum
Potential Fetal Effects of BZDs	Minimal evidence of fetal malformations[1,2] Increased risk of preterm birth		Increased risk of preterm birth, low birth weight, cesarean delivery, ventilatory support	Concern for withdrawal and potential fetal effects if high doses are used during lactation
Potential Effects of Pregnancy on BZD Pharmacokinetics	Increased volume of distribution and CYP2C19, CYP3A4, and CYP2C9 metabolism (resulting in decreased effect) Decreased CYP1A2 and CYP2C19 activity	Increased volume of distribution and CYP2C19, CYP3A4, and CYP2C9 metabolism (resulting in decreased effect) Decreased CYP1A2 and CYP2C19 activity	Increased volume of distribution and CYP2C19, CYP3A4, and CYP2C9 metabolism (resulting in decreased effect) Decreased CYP1A2 and CYP2C19 activity	Reversal of pregnancy changes may increase effect[3]
Causes of Insomnia	Nausea, urinary frequency, back pain	Fetal movements, heartburn, leg cramps, shortness of breath	Fetal movements, heartburn, leg cramps, shortness of breath	Infant care, pain
Considerations for Tapering BZDs	If alternative planned (eg, SSRI) start alternative early to allow 6–8 weeks for effect before tapering BZD. Per above, BZD effect may decrease even before taper		Lowest dose possible to avoid neonatal withdrawal	Monitor sleep closely
Alternative Medication for Insomnia	Diphenhydramine	Antihistamines, trazodone	Antihistamines, trazodone	
Alternative Medication for Acute Anxiety	Hydroxyzine*	Hydroxyzine	Hydroxyzine	Hydroxyzine
Alternative Medication for Severe Chronic Anxiety	SSRI	SSRI	SSRI†	Sertraline has lowest RID

This table outlines considerations for BZD tapering during each trimester of pregnancy and postpartum.

* Limited data suggest possible low risk with first trimester use, but hydroxyzine is generally considered safe in practice.
† Possible increase in persistent pulmonary hypertension of the newborn, with a number needed to harm of 1,000.

Relative Infant Dose (RID) of BZD Medications

Medication*	Relative Infant Dose (RID)†
Alprazolam	2–9%[4]
Chlordiazepoxide	Unknown
Clonazepam	2.5–4.6%[4]
Clorazepate	Unknown, shares metabolite with diazepam
Diazepam	Up to 11%[5]
Estazolam	Unknown
Flurazepam	Unknown
Lorazepam‡	0.7–4.4%[4]
Oxazepam	10-33%[6]
Quazepam	0.2–2.5%[7]
Temazepam	Dose dependent 0–10%[8]
Triazolam	Unknown

This table outlines the relative infant dose of various BZD medications.

* All BZDs are expected to cross placenta.
† For optimal safety, the target RID is <10%.
‡ Lorazepam is generally preferred in pregnancy and lactation due to its lack of active metabolites and low RID.

Sources

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