

High-Risk Fall Periods Following Medication Administration

Did you know that in addition to the type and number of medications a person takes, the timing of drug administration can also affect their risk of falls? Certain medications may cause dizziness, drowsiness, or sudden drops in blood pressure shortly after they are taken. When these effects occur during periods of activity, such as getting out of bed or walking to the bathroom, the risk of experiencing a fall increases.

While peak fall risk timing varies based on resident- and medication-specific factors, risk is highest during predictable periods such as the first 24 to 72 hours after drug initiation, after dose increases, and around the drug's peak effects (i.e., 1 to 4 hours post-administration). Use of multiple central nervous system (CNS)-active medications further increases fall risk and extended-release formulations may prolong CNS effects.

Drug administration patterns may also affect an individual's risk of falls. As needed, or "PRN" medications can lead to unpredictable peaks in drug levels, and nighttime dosing of certain medications can increase the risk of nocturnal and early-morning falls.

To assist with identifying high-fall risk periods, a summary of **fall-risk increasing drugs (FRIDs)** and risk timing are listed below:

Drug	High-Risk Periods for Falls
ALPRAZOLAM (XANAX®)	Highest risk within the first 1–3 days after initiation or dose increase, with PRN use increasing risk due to unpredictable drug level peaks.
AMITRIPTYLINE (ELAVIL®)	Highest risk early in therapy and is associated with strong anticholinergic effects.
CYCLOBENZAPRINE (AMRIX®)	Associated with sedation and dizziness, particularly early in therapy.
DIAZEPAM (VALIUM®)	Risk increases with prolonged use due to drug accumulation and slow clearance.

DID YOU KNOW?

Drug	High-Risk Periods for Falls
ESZOPICLONE (LUNESTA®)	Highest risk with the first few doses; residual next-day sedation may occur.
FENTANYL PATCH (DURAGESIC®)	Highest risk within the first 24–72 hours after initiation, with accumulation and delayed steady drug levels contributing to delayed effects.
FUROSEMIDE (LASIX®)	Highest risk during peak diuresis and is associated with toileting-related falls.
GABAPENTIN (NEURONTIN®)	Associated with dizziness early in therapy and during dose titration.
HALOPERIDOL (HALDOL®)	Highest risk early in therapy, especially with intramuscular administration.
HYDROMORPHONE (DILAUDID®)	Rapid onset is associated with early post-dose risk.
LORAZEPAM (ATIVAN®)	Highest risk occurs within the first 24–72 hours after initiation or dose increase, with potential accumulation with repeated dosing.
MIRTAZAPINE (REMERON®)	Sedative effects are strongest early in therapy.
MORPHINE	Highest risk during the first 3–5 days after initiation and during dose titration.
OLANZAPINE (ZYPREXA®)	Highest risk early in therapy, especially with intramuscular administration.
OXYCODONE (ROXICODONE®)	Highest risk early in therapy and during dose titration.
PRAZOSIN (MINIPRESS®)	Highest risk with the first dose (first-dose syncope) and during early titration.
QUETIAPINE (SEROQUEL®)	Highest risk within the first few days after initiation or dose titration.
RISPERIDONE (RISPERDAL®)	Highest risk early in therapy and is dose-related.

DID YOU KNOW?

Drug	High-Risk Periods for Falls
TRAMADOL (ULTRAM®)	Associated with CNS effects and dizziness, particularly early in therapy.
TRAZODONE	Frequently associated with nighttime falls.
VENLAFAXINE (EFFEXOR®)	Highest risk early in therapy, with associated dizziness and blood pressure effects.
ZAPELON (SONATA®)	Immediate post-dose risk.
ZOLPIDEM (AMBIEN®)	Associated with middle-of-the-night falls and next-morning impairment, particularly with extended-release formulations.

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