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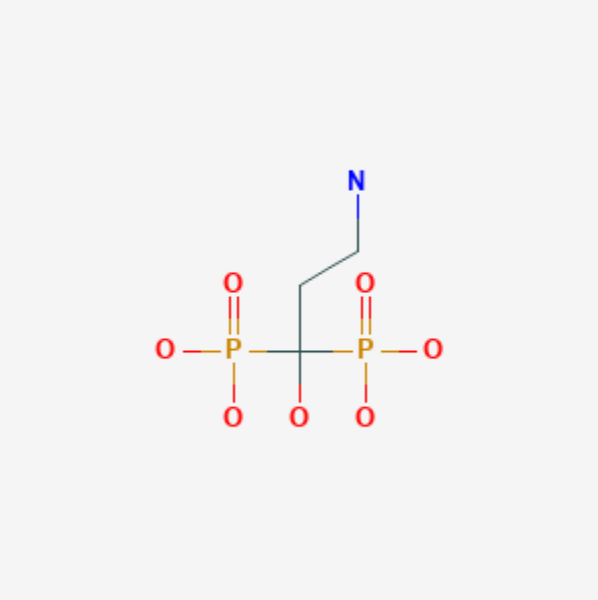
Pamidronate

Revised: October 31, 2018.

CASRN: 40391-99-9



Drug Levels and Effects

Summary of Use during Lactation

Limited information indicates that maternal doses of pamidronate of 30 mg intravenously produce very low levels in milk. Because pamidronate has a serum half-life of about 3 hours, is highly bound to calcium and is poorly absorbed orally (0.3 to 3% in adults), absorption of pamidronate by a breastfed infant is unlikely.[1] Until more data become available, withholding nursing for 12 to 24 hours after a dose should ensure that the breastfed infant is exposed to little or no pamidronate. Other evidence indicates that breastfeeding after cessation of long-term pamidronate treatment appears to have no adverse effects on the infant. Some experts recommend monitoring the infant's serum calcium during the first 2 months postpartum if the mother received pamidronate during pregnancy or nursing.[2]

Drug Levels

Maternal Levels. A woman who was 6 months postpartum received a single intravenous dose of pamidronate 30 mg. She pumped her breasts for 48 hours after the dose and collected the milk in 2 portions for analysis: 0 to 24 hours and 25 to 48 hours. Pamidronate was not detected (<94 mcg/L) in either portion of breastmilk.[1]

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

A mother received intravenous pamidronate 30 mg once monthly beginning 6 months postpartum. She pumped her breasts and discarded the milk for 48 hours after each dose. The infant, who was about 80% breastfed throughout maternal pamidronate therapy, remained healthy and grew normally during this time.[1]

Because pamidronate can persist in the body for years after long-term administration, the following cases may be relevant. Three women received pamidronate intravenously for osteogenesis imperfecta or McCune-Albright syndrome in cumulative dosages of 6, 7.5 and 9 mg/kg annually for 2 years, 4 years, and 2.2 years, respectively. Their last doses were 3 months, 3 and 48 months (2 infants), and 21 months prior to conception, respectively. None of the women resumed pamidronate during breastfeeding, but they all breastfed their infants postpartum, one for 18 months, two for undetermined times, and one for 6 weeks. None of the infants had any evidence of adverse effects of pamidronate.[3]

Two other mothers received intravenous pamidronate infusions preconception and during pregnancy. On received a total of 240 mg with the final dose during the first trimester of pregnancy. She exclusively breastfed her infant for 6 months and continued breastfeeding until the infant was 12 months old. Her infant grew normally and had no adverse reactions.[4] Another woman received alendronate for 6 months, then pamidronate every 4 months for 1 year prior to conception. Her infant was breastfed (extent not stated) for 3 months. The infant had mild hypocalcemia at 2 months of age, but a normal calcium level and normal long bone development at 5 months of age.[5]

A woman developed transient osteoporosis with foot pain during pregnancy. On days 3 and 8 postpartum and 2 months later, she received 30 mg of pamidronate intravenously. She was instructed to discard her breastmilk for 24 hours after each dose. Her breastfed (extent not stated) infant had normal growth and development at 15 months of age.[6]

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

References

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Substance Identification

Substance Name

Pamidronate

CAS Registry Number

40391-99-9

Drug Class

Breast Feeding

Lactation

Bisphosphonates

Bone Density Conservation Agents

Diphosphonates