8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category C

Methylphenidate has been shown to have teratogenic effects in animals. A reproduction study in rats revealed no evidence of harm to the fetus at oral doses up to 30 mg/kg/day, approximately 0.6-fold and 0.05-fold the maximum recommended human dose of methylphenidate hydrochloride extended-release tablets on a mg/kg and mg/m² basis, respectively. The approximate plasma exposure to methylphenidate plus its main metabolite d-amphetamine was 15-fold and 3-fold the maximum recommended human dose of methylphenidate hydrochloride extended-release tablets on a mg/kg and mg/m² basis, respectively. The approximate plasma exposure to the main metabolite d-amphetamine was 15-fold and 3-fold the maximum recommended human dose of methylphenidate hydrochloride extended-release tablets on a mg/kg and mg/m² basis, respectively.

In a study with beagle dogs, methamphetamine exposures up to 0.4 mg/kg/day were well tolerated. Oral doses of methylphenidate up to 15 mg/kg/day did not cause an increase in tumors in a 2-year carcinogenicity study in rats. In a lifetime carcinogenicity study in mice, methylphenidate did not cause any increases in tumors. Methylphenidate did not cause any increases in tumors in a lifetime carcinogenicity study carried out in F344 rats; however, an increase in benign liver tumors was observed in male rats treated at 15 mg/kg/day of methylphenidate. The mouse strain used is sensitive to the promotion of liver tumors by the 2-acetylaminofluorene compound, which is used in some carcinogenicity studies.

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