

PRESCRIBING IN CHILDREN AND ADOLESCENTS; TERATOGENIC POTENTIAL OF MEDICATION THERAPY, CONCERN OF THE PEDIATRICIAN

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It is standard practice to check for pregnancy status during examination in adult patients and to warn patients of possible teratogenicity of medications given. However, this precaution is often overlooked when examining adolescents of child bearing potential. The purpose of this study is to see whether there is an association between patient gender and teratogenic potential of drugs dispensed to children at risk of an unplanned pregnancy.

All inpatient prescriptions dispensed at Children's Hospital in 2004 for children between 9 and 16 years of age were reviewed. Teratogenicity was based on established Food and Drug Administration categories: **A**- adequate studies in pregnant women have not demonstrated risk to the fetus, **B**- animal studies have shown an adverse effect, but adequate studies in pregnant women have not demonstrated risk to the fetus during the first trimester of pregnancy, **C**-animal studies have shown an adverse effect on the fetus but, there are no adequate studies in humans, **D**- there is evidence of human fetal risk, and **X**- studies in animals or humans indicate evidence of fetal risk. In this study we further collapsed to three categories: (A- no risk); (B- minimal risk); (C, D, and X- high risk). Chi Square was used to test association between gender and teratogenicity, first by considering each unique drug name per patient as independent, and by randomly picking one of the drugs given per child. This study was approved by the institution's Investigational Review Board.

Data for 1520 girls and 1888 boys and 18,451 unique drug name prescriptions were reviewed. The number of unique drug names prescribed per child in one year ranged from 1 to 71, with a median of 3. Prescribing pattern did not differ between sexes across age for drugs of various levels of teratogenicity. Prescribing pattern stayed stable, whether considering unique drug name per patient as independent (18,451 samples), or by randomly selecting a single drug per patient (3408 samples).

Prescribing pattern did not differ between males and females. Simple steps can be taken to prevent accidental teratogenic events in young female adolescents, such as prescribing alternative drugs that are considered safe (Class A and B agents), and providing contraception and/or education to families and practitioners.