



Saskatchewan Drug Information Services
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www.usask.ca/druginfo



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Providing Drug Information During Pregnancy and Lactation

Pharmacists play an important role in primary health care, and their accessibility is a key factor. ¹ Pharmacists are perceived as the experts on medicines and are often asked for advice on the use of medication during pregnancy and lactation. ² The number of calls received by the Saskatchewan Drug Information Service (SDIS) in these areas has been steadily increasing on both the professional and consumer phone lines.

Providing drug information to women who are pregnant and/or breastfeeding can be a very challenging and often unnerving experience. It is crucial we approach these queries systematically and do not undervalue the impact of our recommendations. The objective of this newsletter is to demonstrate the importance of providing evidence-based information and to increase awareness of the available references.

PREGNANCY

Women are very concerned about the health of their unborn babies when pharmacological intervention is deemed necessary. Most health care professionals receive insufficient training to answer all the questions pregnant women ask about the effects of chemical, physical, or infectious agents on the developing human embryo or fetus. ³ Since pharmacists typically are very accessible, women frequently seek advice from them on drug exposure during pregnancy. ² Koren states that “while the exact rate of pregnancy termination due to fears of adverse fetal effects of xenobiotics is not known, there is indirect evidence that this is not uncommon”. ⁴

A recently published study by Lyszkiewicz et al. ⁵ is the first to evaluate the role of the pharmacist in providing drug information to the pregnant woman. One hundred and twenty community pharmacies from Toronto, the Netherlands and Iceland were randomly selected to take part in one of three pre-determined scenarios involving fluoxetine, metronidazole and carbamazepine. The study design included female students from each country trained as surrogate shoppers to pose as pregnant women in one of the three scenarios.

In the majority of cases, the information provided by the pharmacist was not consistent with current medical literature.

Results reveal that only 14% referred to current medical literature and over 90% made referrals to the physician. Anecdotal information was provided to an alarming extent-- 30% in two of the scenarios. Sixty percent of pharmacists referred to the product monograph, 8% gave copies to the patient. Information found in the monograph is provided by the manufacturer and generally does not take into account recent evidence. In addition, medical-legal issues prevent manufacturers from recommending drug use in pregnancy. Having said that, some manufacturers have started "pregnancy registries" which record the outcomes of pregnancies in which fetuses have been exposed to their product (e.g. Eli Lilly's fluoxetine and GlaxoSmithKline's bupropion). This information is usually not published and is only available directly from the manufacturer. You may be interested to know that Canadian pharmacists fared most favorably during this study by referring least to the product monograph.

This study demonstrates a need for improved counseling skills in this area and the importance of knowing how to access appropriate references.

BREASTFEEDING

With professional associations such as the Canadian Paediatric Society (CPS), the American Academy of Pediatrics (AAP), and the World Health Organization (WHO) Working Group along with local organizations emphasizing breastfeeding^{6,7,8} it is not surprising there has been an increase in the number of women who are breastfeeding and a corresponding increase in the number of queries from concerned mothers and health care professionals.

It is of little clinical significance when decisions are made not to take medications for symptomatic relief such as OTCs during lactation. However, there can be serious consequences when medically indicated drugs such as antibiotics, antihypertensives, anti-depressants, and anti-epileptics are not taken.⁹

One objective of a prospective cohort study run by the Motherisk Program was to determine the incidence of antibiotic prescription non-compliance in breastfeeding women. Results revealed that despite reassuring advice, one in five women either did not initiate therapy or did not continue breastfeeding. In an effort to prevent noncompliance and avoid temporary or permanent breastfeeding cessation the authors recommend careful evaluation of whether drug therapy is necessary coupled with thorough counseling.⁹

Product monographs are equally poor sources of information for recommendations on drug use in lactation as they are in pregnancy. The decision to continue breastfeeding is ultimately up to the mother, but we can help

her make an evidence-based decision by providing the most current information, ideally during a counseling session.

REFERENCES:

Saskatchewan Drug Information Service (SDIS)

Health care professionals: 1-800-667-3425 or 966-6340

Open 8:30am-4:30pm M-F (except stat holidays)

Consumers: 1-800-665-DRUG (3784) or 975-DRUG (3784)

Open 9:00am-4:00pm M-F (except stat holidays)

***after hours messages may be left on voice mail**

- Licensed pharmacists trained in drug information provide consumers, pharmacists and other health care professionals with immediate access to objective, concise and unbiased information on drug therapy problems, as they arise.
- Requests include those relating to drug use in pregnancy and lactation, adverse reactions/side effects, contraindications/precautions, drug availability (new, investigational, emergency), drug compatibility, drug dosage/administration, drug identification (Canadian, foreign), drugs of choice, pharmacology, therapeutic indications, compounding problems.
- Houses the Saskatchewan Adverse Drug Reaction (SaskADR) reporting center (306) 966-6329

Briggs GG, Freeman RK, Yaffe SJ. Drugs in pregnancy and lactation. 6th ed. Philadelphia: Lippincott Williams & Wilkins; 2002.

- U of S bookstore approx. \$180.00
- Textbook format
- Reviews over 900 drugs based on an evaluation of both animal and human research literature. Risk factors have been established for each drug (A,B,C,D,X), based on the level of risk to the fetus in accordance with the FDA guidelines.
- Aimed at assisting the reader in formulating a risk:benefit decision.
- Breastfeeding summaries are not as exhaustive and may require the investigator to look further.

Hale TW. Medications and mother's milk. 10th ed. Amarillo: Pharmasoft Medical Publishing; 2002

- U of S bookstore approx. \$40.00 or from www.perinatalpub.com

- Recommendations are not made but the author reviews what is currently known in the medical literature (in an easy to read format) to assist the reader in making educated risk:benefit assessments.
- Provides pharmacokinetic data on each agent including half-lives, molecular weight, peak plasma levels, protein binding, etc.
- Lists recommendations provided by the American Academy of Pediatrics as well as the Pregnancy Risk Category (as described above).

Koren G, editor. Maternal-fetal toxicology a clinician's guide. 3rd ed. New York: Marcel Dekker AG; 2001

- U of S bookstore approx \$ 320.00
- A clinically oriented text; assists health care professionals in answering questions on the potential reproductive effects of xenobiotics and radiation.
- Clinical relevance is enhanced by the provision of clinical cases at the beginning of most chapters.
- Addresses a wide range of topics ranging from "Treatment for Epilepsy in Pregnancy" to "The Use of Herbal Medicine in Pregnancy and Lactation".

Mother Risk Clinic, Hospital for sick children, Toronto Ontario

Ph: 1-416-813-6780

Toll free (alcohol & substance abuse) 1-877-587-8953

- Provides timely, unbiased information to concerned mothers and their health care practitioners on exposures to drugs, infections and chemicals during pregnancy and breastfeeding.
- Visit their website at www.motherisk.org/intro.htm for access to newsletters, interesting links and more.

PubMed (public Medline)-www4.ncbi.nlm.nih.gov

- Website to conduct a literature search (Tip: use common name AND scientific names, synonyms and trade names as key words).
- Contains bibliographic citations and author abstracts from more than 4000 biomedical journals published in over 70 countries.
- Covers a wide variety of allied health topics including herbals.

REFERENCES:

Available upon request

Prepared by Maya Wagner, Drug Information Consultant