



Fetal Alcohol Exposure: Time to Know, Time to Act

Ontario's Provincial Conference
April 10-11, 2003

Motherisk

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Adrienne Einarson is an experienced nursing professional, with specialties in midwifery and psychiatry. As Motherisk's Assistant Director of Clinical Services, she is responsible for coordinating day-to-day program operations. Ms. Einarson trains new counselors, and supervises students of medicine, pharmacy, pharmacology, midwifery, genetic counseling and naturopathy. An active member of Motherisk's research team, her main research interests are psychiatry, nausea and vomiting of pregnancy and alternative medicine. She also conducts studies looking at perception of risk and determinants of decision making regarding the use of drugs during pregnancy.

The Motherisk Program

The Hospital for Sick Children
Toronto, Ontario, Canada

The Motherisk Team

- pediatrics, obstetrics, neurology, psychiatry, psychology, pharmacy, nursing, genetics, infectious diseases, pharmacology, toxicology, epidemiology, naturopathy
- Graduate and undergraduate students in pharmacology, pharmacy medicine, midwifery, genetics counseling and naturopathy

Statistics

■ Number of calls:	40,000/year
■ Pregnancy	67%
■ Breastfeeding	33%
■ self callers	60%
■ physicians	25%
■ pharmacists	10%
■ other health professionals	5%

Is it Safe? Common Questions

Medications

- Antibiotics
- Pain relievers
- Cold medication
- Asthma medication
- Corticosteroids
- Laxatives
- Anti-emetic medication

Is it Safe? Common Questions

■ *Infectious diseases*

- Parvovirus B19(fifth disease)
- Toxoplasmosis
- Rubella
- Cocksackie Virus(hand-foot-mouth disease)
- Genital herpes
- Group B streptococcus
- Varicella(chicken pox)

Common statements

- Women who are pregnant or breastfeeding should not take any medications
- The safety of the drug during pregnancy and lactation has not been established. Therefore it should not be administered to women of childbearing potential unless the benefit clearly outweighs the possible hazards to the fetus or child (*CPS*)

Teratogens

- Thalidomide
- Lithium
- Anti-epileptics
- Warfarin
- Alcohol
- Isotretinoin
- Rubella
- Carbon monoxide
- Hyperthermia
- Lead
- Misoprostol
- varicella

Embryotoxic exposures

- Ace inhibitors
- Tetracyclines
- Fifth disease
- NSAIDS
- Sulfonamides
- Cocaine
- Cigarette smoking

Is it safe? Common Questions

- *Recreational/non medicinal exposures*
- Alcohol
- Cigarette smoking
- Caffeine
- Sugar substitutes
- Marijuana
- Ecstasy
- Cocaine

Is it Safe? Common exposures

Chemical Exposures

- Household paints
- Hair colour and perms
- Pesticides and insecticides

Radiation

- Video display terminals
- Diagnostic X-Rays

Is it safe? Common Questions

Occupational Exposures

- hair dressers
- laboratory technicians
- photography developers
- dry cleaners
- dentists/assistants
- factory workers
- veterinarians/assistants

The Counselling Process

- *Obtain medical history*
- general health of woman/concurrent diseases
- exposure
- Dosage
- Duration and timing of exposure
- Other risks/exposures not directly related to current question
- Alcohol/smoking habits

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Drug use during breastfeeding

- Many drugs can be taken without harm to the infant
- Question to ask: how much of the drug actually get into the breast milk
- Avoid drugs with a long half-life: possibility of accumulation in breast milk

Epidemiologic research

- Computer data base
- Follow up of patients who called before or during pregnancy
- Pregnancy outcomes obtained
- Prospective controlled studies performed with women exposed to various agents during pregnancy
- Published in peer reviewed journals

Motherisk publications

- *On exposures during pregnancy and breastfeeding*
- Benzodiazepines- anti-emetic medications
- Spermicides- oral contraceptives -H2 blockers
- Metronidazole -fluoroquinolones -varicella antihistamines- proton pump inhibitors misoprostol- lithium-accidental electric shock
- SSRI antidepressants-echinacea-cyclosporine
- Cocaine-alcohol-sumatriptin-corticosteroids

Motherisk publications

- Perception of risk papers
- Physician surveys
- Characteristics of women using illegal substances
- Cocaine measurements in hair
- Neurodevelopmental studies of children exposed in utero to various agents

National toll free services

- Nausea and vomiting in pregnancy
- HIV healthline and network
- Alcohol and substance use

Alcohol and substance use line

- Alcohol not recommended in pregnancy
- Incidence of FAS is 4.3/100 of heavy drinkers. 1/100 live births affected by ARND (alcohol-related-dev.disorder)
- Information given to women and their health care providers from all over Canada about alcohol and drugs of abuse
- FAS assessments offered by Motherisk team experts in the field

HIV in pregnancy

- The risk of transmission from an HIV positive woman is 25%, occurring mostly during the birthing process
- Safety and efficacy of various drug treatments that can help decrease transmission rates (e.g AZT 8%)
- HIV infected mothers are recommended to avoid breastfeeding
- Referral sources to other services

NVP helpline

- Up to 70 % of pregnant women suffer from NVP
- Largely ignored in the medical community
- Safe and effective medication is available
- Ongoing research by team which includes: quality of life, development of clinical guidelines for treatment, perception of risk, new treatments such as ondansetron and non sedating antihistamines
