



DRUGS CONTRAINDICATED IN PREGNANCY

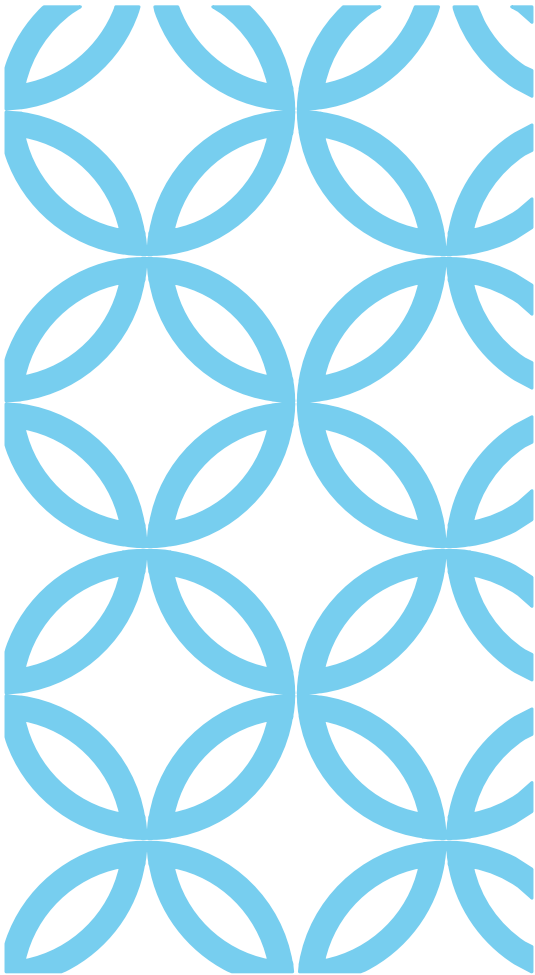
LEARNING OUTCOMES

By the end of this lecture, students should be able to:

Enumerate toxic effects of drugs during pregnancy

Discuss Food and Drug Administration Pregnancy Risk Categories

Discuss possible effects of drugs on the infant, if taken during lactation.



Structural or functional defects in the developing embryo or fetus characterise teratogenesis. It also includes intrauterine growth retardation, death of the embryo or fetus, and transplacental carcinogenesis.

Stages of intrauterine human development: **Pre-implantation** and **post-implantation** stages (0 → 8 weeks), teratogens may produce abortion, no effect at all, an anatomic defect (Teratogenesis), or a metabolic or functional defect that may not be detected until later in life.

Fetal development (9 weeks → birth), influence neurologic development, growth, physiologic and biochemical functioning, mental development, and reproduction or death of the fetus.

Anencephalic newborn



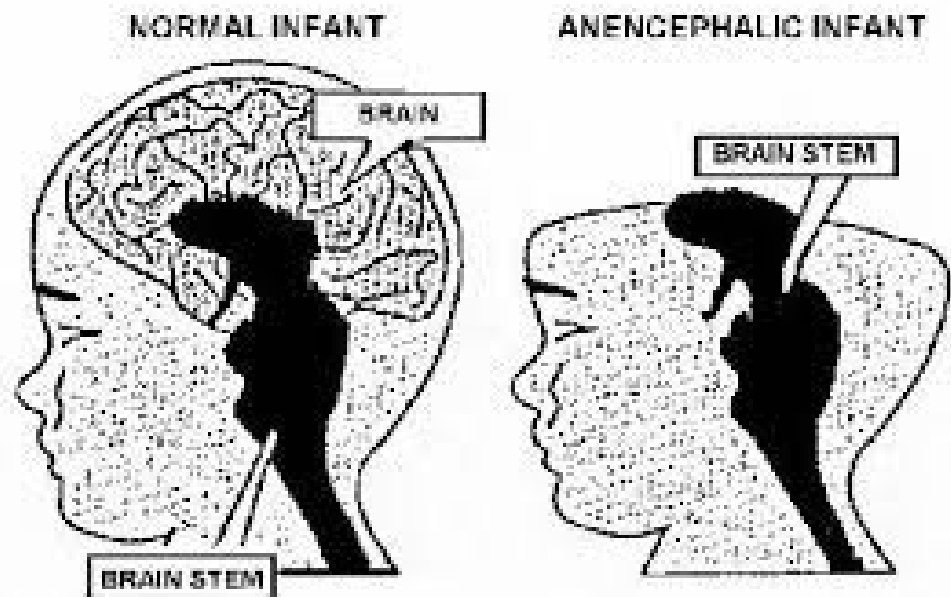
Cleft lip and palate



Baby with cleft lip

Microtia





FOR INTERNAL CIRCULATION ONLY

Congenital abnormalities (birth defects) comprise 1/5 of all fatalities among newborns/infants.

Of these, the largest portion consists of cardiac abnormalities followed by lung abnormalities and chromosomal aberrations.

FDA CLASSIFICATIONS OF DRUG RISK

- A. No fetal risk shown in controlled human studies in all trimesters.
- B. Animal studies show a risk that is not confirmed in human studies during all trimesters.
- C. Fetal risk shown in controlled animal studies but no controlled human studies are available or studies in humans and animals are not available.
- D. Studies show fetal risk in humans (use of drug may be acceptable even with risks).
- X. Risk to fetus clearly outweighs any benefits from these drugs.

EXAMPLES OF TERATOGENIC AGENTS

Thalidomide (X). Limb defects and other congenital anomalies

Warfarin (D). Skeletal abnormalities (curvature of the spine) and Limb abnormalities.

Aminoglycosides (C) at high dose. VIII cranial nerve damage.

ACE inhibitors (D). Renal tubular dysplasia, skull and pulmonary hypoplasia.

Antineoplastics (D). Growth retardation, cleft palate, eyes, kidney, cardiac, limbs, skull defects.

DENTAL PATIENTS

Preventive, diagnostic and restorative dental treatment is safe throughout pregnancy.

Local anesthetics with epinephrine (e.g., bupivacaine, lidocaine, mepivacaine) may be used during pregnancy.

Special considerations should be given to pregnant dental personnel whose job duties can involve direct exposure to nitrous oxide and radiation.

Root canals or restorations can be safely performed during pregnancy and that delaying treatment may result in more complex problems.

COMMON DRUGS USED IN DENTISTRY ANTIBIOTICS

Drugs	Use in Pregnancy	Use in Lactation	Remarks
Amoxicillin Metronidazole Erythromycin Penicillin Cephalosporins	YES	YES	<ul style="list-style-type: none"> • Fetal ototoxicity with gentamycin. • Discoloration of teeth with tetracycline. • Maternal toxicity/fetal death with chloramphenicol
Gentamycin Clindamycin	YES	YES	
Tetracycline Chloramphenicol	NO	NO	

COMMON DRUGS USED IN DENTISTRY ANALGESICS

Drugs	Use in Pregnancy	Use in Lactation	Remarks
Acetaminophen Morphine Meperidine	YES	YES	<ul style="list-style-type: none"> Postpartum hemorrhage associated with aspirin. Respiratory depression with morphine.
Oxycodone Hydrocodone Propoxyphene Pentazocine	WITH CAUTION	WITH CAUTION	
Aspirin Ibuprofen Naproxen	NOT IN 3RD TRIMESTER	NO	

COMMON DRUGS USED IN DENTISTRY ANTIFUNGALS

Drugs	Use in Pregnancy	Use in Lactation	Remarks
Clotrimazole Nystatin	YES	YES	Fetal toxicity with ketoconazole.
Fluconazole Ketoconazole	WITH CAUTION	WITH CAUTION	

COMMON DRUGS USED IN DENTISTRY LOCAL ANESTHETICS

Drugs	Use in Pregnancy	Use in Lactation	Remarks
Lidocaine Prilocaine Etidocaine	YES	YES	Fetal bradycardia with Mepivacaine & Bupivacaine
Mepivacaine Bupivacaine	WITH CAUTION	YES	

**COMMON DRUGS
USED IN
DENTISTRY
CORTICOSTEROIDS**

Drugs	Use in Pregnancy	Use in Lactation
Prednisolone	YES	YES

COMMON DRUGS USED IN DENTISTRY SEDATIVE/HYPNOTIC

Drugs	Use in Pregnancy	Use in Lactation	Remarks
Nitrous oxide	NOT IN 1ST TRIMESTER	YES	Spontaneous abortions with Nitrous oxide. Cleft lip/palate with
Barbiturate Benzodiazepines	NO	NO	Benzodiazepines

REFERENCES

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