

CHAPTER 1
Information, Sources, Regulatory Agencies, Drug Legislation, Prescription Writing

I. HISTORY

II. PHARMACOLOGY AND ORAL HEALTH CARE PROVIDERS

III. SOURCES OF INFORMATION

Text
PDR (Physician's Desk Reference)
Rx.com
Rxlist.com
Wikipedia

IV. DRUG NAMES

A. Drug Names

Chemical (IUPAC)	2-(diethylamino)- <i>N</i> -(2,6-dimethylphenyl)acetamide
Generic	lidocaine
Trade	Xylocaine, Lingospan
Brand	Eastman Kodak, Astra Pharmaceuticals

B. Drug Substitution

C. Top 200 Drugs

V. FEDERAL REGULATORY AGENCIES

A. Food And Drug Administration (**FDA**)

B. Federal Trade Commission (**FTC**)

C. Drug Enforcement Agency (**DEA**)

VI. CLINICAL EVALUATION OF A NEW DRUG

Phase 1

Phase 2

Phase 3

Phase 4

VII. DRUG LEGISLATION

ACTS

1. Harrison Narcotic Act
2. Food, Drug, Cosmetic Act
3. Controlled Substances Act

SCHEDULES

see table 1-4, page 8
marijuana?

https://en.wikipedia.org/wiki/Removal_of_cannabis_from_Schedule_I_of_the_Controlled_Substances_Act

VIII PRESCRIPTION WRITING

CHAPTER 2 Drug Action and Handling

I. Drug-receptor interactions

II. Receptor Characterization

III. Receptor Classification https://www.youtube.com/watch?v=i7_VTkhR3UI

Ion channel-linked receptors
Voltage - gated
Ligand – gated

G protein-linked receptors

Enzyme-linked receptors

Intracellular receptors

IV. Receptor Theory

Chemical bond strength
Covalent bonds
Ionic Bonds
Hydrogen Bonds
Van der Waals forces
Spatial orientation / specificity
Stereoisomers

V. Consequences of Ligand-Receptor Binding

VI. Dose-Response Relationships

Agonists

Antagonists

Competitive

Non-competitive

Physiologic

VII. PHARMACOKINETICS (**ADME**)

A. Passage across body membranes

1. Passive transfer

2. Active transport

3. Facilitated diffusion

B. **A**bsorption

C. **D**istribution

1. Half-life

2. Blood-Brain Barrier

3. Enterohepatic circulation

4. Redistribution

D. **M**etabolism (biotransformation)

1. Phase 1

2. Phase 2

E. **E**xcretion

1. Renal

2. Other routes

VIII. ROUTES OF ADMINISTRATION AND DOSE FORMS

A. Routes of Administration

1. oral

2. rectal

3. IV

4. IM

5. Inhalation

6. Topical

B. Dose Forms - see text pg 26 table 2-2

XI. FACTORS THAT ALTER DRUG EFFECTS

CHAPTER 3
Adverse Reactions

I. DEFINITIONS AND CLASSIFICATIONS

A. Toxic Rxn

B. Side Effect

C. Idiosyncratic Rxn

D. Allergy

E. Interference with natural defense mechanisms

II. CLINICAL MANIFESTATIONS OF ADVERSE REACTIONS

A. Exaggerated effect on target tissues

B. Effect on nontarget tissues

C. Effect on fetal development (teratogenic effect)

D. Local effect

E. Drug interactions

F. Hypersensitivity (allergic reactions)

Type I

Type II

Type III

Type IV

G. Idiosyncrasy

III. TOXICOLOGIC EVALUATION OF DRUGS

Therapeutic Index (T.I.)