

1  CNS Medications

2  Narcotic Analgesics

• Analgesia = Pain Relief

• Common properties

- agonists at opiate receptors
- respiratory depression
- interact with other CNS depressants
- tolerance

3  Morphine

• Prototype narcotic analgesic

• Tolerance/Dependence

- Schedule II
- high potential for abuse

• Withdrawal

- very distressing
- not usually fatal

• Overdose

- treat with Narcan

4  NSAIDS

• Many agents available

- differ by half-life and duration

• Chemical families

5  Sedatives, Hypnotics, and Anti-Anxiety Agents

• Barbiturates in the past

• Benzodiazepines used widely

6  Barbiturates

• Same pharmacological effects

• Exhibit dose-dependent CNS depression

• Classified by lipid solubility and chemical structure

7  Phenobarbital

- See handout
- Tolerance and Physical Dependence
  - Schedule II
  - tolerance due to enzyme induction and adaptation of CNS
- Withdrawal
  - mild: insomnia, anxiety
  - severe: fever, delirium, status epilepticus, death

8  Benzodiazepines

- Vary with respect to onset and duration
- Diazepam is the prototype

9  Valium

- See handout
- Tolerance, Dependence, Abuse
  - physical dependence with abrupt d/c
- Overdose
  - relatively safe if taken alone
  - often fatal in combination

10  Ativan

- See handout

11  Flumazenil

- Benzodiazepine reversal
- Useful in overdose
- Avoid in TCA/benzo combination

12  Versed

- See handout

13  Anti-Psychotics

- Psychosis
  - impaired ability to recognize reality
  - schizophrenia
  - mania

- organic brain syndrome

• Tranquilizers or Neuroleptics

14  Haldol

• See handout

15  Anti-Convulsants

• Epilepsy

- episodes of abnormal electrical activity in the brain
- causes
  - idiopathic, cancer, stroke, brain injury, meningitis, acute alcohol ingestion
- drug choice based on seizure type

16  Anti-Convulsants

• Epilepsy

- agents suppress start of seizures
- drug classes
  - hydantoins
  - long acting barbiturates
  - benzodiazepines
- therapeutic goals
  - seizure free and functional

17  Hydantoins

• Dilantin is prototype

• See handout