

# **INTRODUCTION TO CLINICAL PHARMACOLOGY**



## **CHAPTER 20 SEDATIVES AND HYPNOTICS**

# LEARNING OBJECTIVES

- 1. DIFFERENTIATE BETWEEN A SEDATIVE AND A HYPNOTIC.**
- 2. EXPLAIN THE USES, GENERAL DRUG ACTIONS, ADVERSE REACTIONS, CONTRAINDICATIONS, PRECAUTIONS, AND INTERACTIONS OF SEDATIVES AND HYPNOTICS.**
- 3. DISTINGUISH IMPORTANT PREADMINISTRATION AND ONGOING ASSESSMENT ACTIVITIES THE NURSE SHOULD PERFORM WITH THE CLIENT TAKING A SEDATIVE OR HYPNOTIC.**
- 4. LIST NURSING DIAGNOSES PARTICULAR TO A CLIENT TAKING A SEDATIVE OR HYPNOTIC.**
- 5. EXAMINE WAYS TO PROMOTE AN OPTIMAL RESPONSE TO THERAPY, HOW TO MANAGE COMMON ADVERSE REACTIONS, AND IMPORTANT POINTS TO KEEP IN MIND WHEN EDUCATING CLIENTS ABOUT THE USE OF SEDATIVES OR HYPNOTICS.**

# WHAT IS INSOMNIA?

❖ **INSOMNIA CRITERIA—DIFFICULTY FALLING ASLEEP; WAKING OFTEN & HAVING TROUBLE FALLING BACK TO SLEEP; WAKING TOO EARLY; FEELING TIRED UPON WAKING**

❖ **CAUSES: LIFESTYLE CHANGES; NEW JOB; JET LAG; CHRONIC PAIN; HEADACHE; STRESS; ANXIETY**

# SEDATIVES AND HYPNOTICS

- ❖ **TWO CLASSES: BARBITURATES; NONBARBITURATES**
- ❖ **BARBITURATES HAVE HARSH SIDE EFFECTS AND ARE NOW ONLY USED FOR DEEP, NONWAKING SLEEP (ASSISTED SUICIDE)**
- ❖ **CLASSIFICATION OF NONBARBITURATES:**
  - ❖ **BENZODIAZEPINES AND NONBENZODIAZEPINES**
- ❖ **EXAMPLES OF BENZODIAZEPINES:**
  - ❖ **TEMAZEPAM; TRIAZOLAM**
- ❖ **EXAMPLES OF NONBENZODIAZEPINES:**
  - ❖ **ESZOPICLONE; ZOLPIDEM**



# SEDATIVES AND HYPNOTICS—ACTIONS

- ❖ **BARBITURATES—CNS DEPRESSION AND MOOD ALTERATIONS (MILD EXCITATION, MILD SEDATION, HYPNOSIS, AND DEEP COMA); RESPIRATORY DEPRESSANTS**
- ❖ **BENZODIAZEPINES—CNS DEPRESSION; EFFECT ON GAMMA-AMINOBUTYRIC ACID (GABA) TO POTENTIATE NEURAL INHIBITION; LESSER EFFECT ON RESPIRATORY RATE; INDUCTION OF SLEEP**
- ❖ **NONBENZODIAZEPINE—GROUP OF UNRELATED DRUGS THAT ALL PROVIDE SOME LEVEL OF CNS DEPRESSION; EFFECTS DIMINISH AFTER ABOUT 2 WEEKS; POTENTIAL FOR PHYSICAL TOLERANCE, DEPENDENCE, AND WITHDRAWAL**

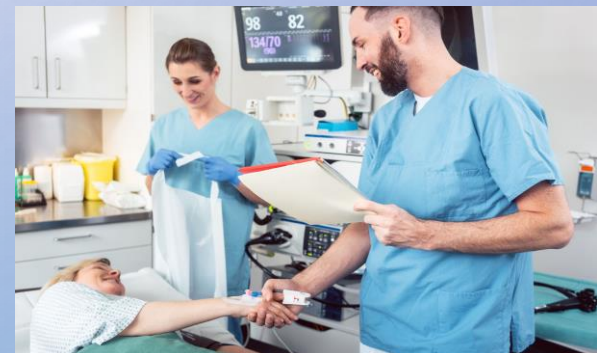
# SEDATIVES AND HYPNOTICS—USES

❖ **INSOMNIA**

❖ **CONVULSIONS OR SEIZURES**

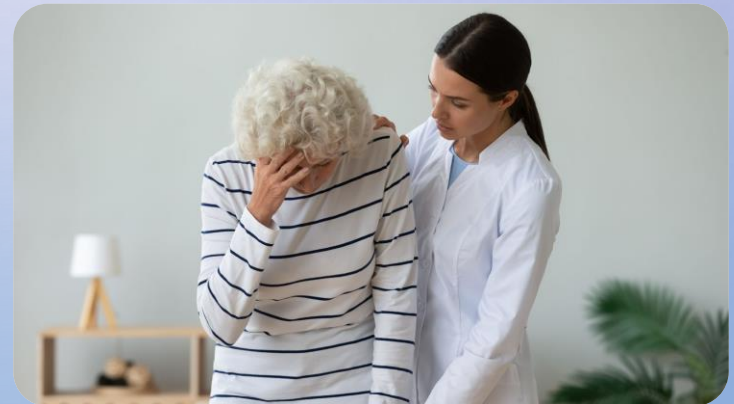
❖ **PREOPERATIVE SEDATION**

❖ **CONSCIOUS SEDATION**



# SEDATIVES AND HYPNOTICS—ADVERSE REACTIONS

- **ADVERSE REACTIONS:**
  - **NERVOUS SYSTEM REACTIONS SUCH AS DIZZINESS, DROWSINESS, AND HEADACHE**
  - **GI SYSTEM REACTION— NAUSEA, HEARTBURN**



# **SEDATIVES AND HYPNOTICS— CONTRAINDICATIONS**

- **CONTRAINDICATED IN CLIENTS WITH:**
  - **KNOWN HYPERSENSITIVITY TO SEDATIVES OR HYPNOTICS**
  - **COMA**
  - **SEVERE RESPIRATORY PROBLEMS**
  - **A HISTORY OF HABITUAL DRUG AND ALCOHOL USE**
  - **PREGNANCY OR LACTATION**

# **SEDATIVES AND HYPNOTICS— PRECAUTIONS**

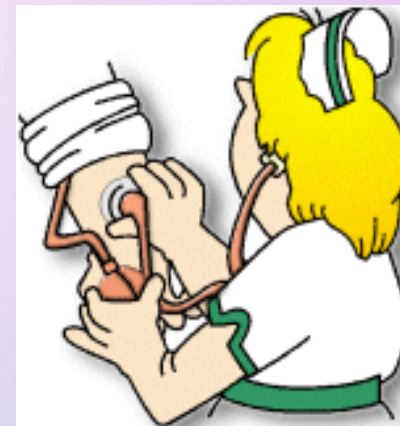
- **USE CAUTIOUSLY IN CLIENTS WITH:**
  - **LACTATION**
  - **HEPATIC OR RENAL IMPAIRMENT**
  - **HABITUAL ALCOHOL USE**
  - **MENTAL HEALTH PROBLEMS**

# SEDATIVES AND HYPNOTICS— INTERACTIONS

Interacting Drug	Common Use	Effect of Interaction
Antidepressants	Management of depression	Increased sedative effect
Opioid analgesic antihistamines	Pain relief, relief of allergy symptoms	Increased sedative effect
Phenothiazines	Management of agitation and psychotic symptoms	Increased sedative effect
Cimetidine	Management of gastric upset	Increased sedative effect
Alcohol	Relation and enjoyment in social situations	Increased sedative effect

# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #1

- **PREADMINISTRATION ASSESSMENT**
- **OBJECTIVE DATA**
  - **VITAL SIGNS—LOW BLOOD PRESSURE**
  - **LEVEL OF CONSCIOUSNESS**
  - **OBSERVATION OF BEHAVIOR DURING THE INTERVIEW**
  - **OBSERVATIONS OF THE ENVIRONMENT THAT MAY CAUSE INSOMNIA**



# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #2

- **PRE-ADMINISTRATION ASSESSMENT**

- **SUBJECTIVE DATA**



- **CURRENT HISTORY OF SYMPTOMS, DESCRIPTION OF TYPICAL SLEEP PATTERNS, BEDTIME, WAKE-UP TIME**
- **METHODS USED TO DEAL WITH INSOMNIA (SELF-MEDICATION, HERBAL REMEDIES, ALCOHOL, DRUGS)**
- **MEDICAL, SOCIAL, AND MENTAL HEALTH HISTORY**
- **MEDICAL, SOCIAL, AND HEALTH HISTORY**
- **REVIEW CHART FOR DRUGS THAT MAY CAUSE CHANGES IN SLEEP PATTERNS (CAFFEINE-CAUSES WAKEFULNESS)**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #3**

- **ONGOING ASSESSMENT**

- **FOCUS ASSESSMENT ON WHY CLIENT CAN NOT GET ADEQUATE SLEEP**
- **ASSESS THE VITAL SIGNS AND LEVEL OF CONSCIOUSNESS EACH TIME BEFORE ADMINISTERING THE DRUG (NOTIFY PRIMARY HEALTH CARE PROVIDER IF RESPIRATORY RATE IS LESS THAN 10 BREATHS/MIN)**
- **CHECK IF DRUG HELPED CLIENT SLEEP ON PREVIOUS NIGHTS**
- **CONSULT PRIMARY HEALTH CARE PROVIDER REGARDING TIME INTERVAL BETWEEN ADMINISTRATION OF DRUGS**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #4**

- **NURSING DIAGNOSES**
  - **INJURY RISK RELATED TO IMPAIRED MEMORY**
  - **ALTERED BREATHING PATTERN RELATED TO RESPIRATORY DEPRESSION**
  - **COPING IMPAIRMENT RELATED TO EXCESSIVE USE OF MEDICATION**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #5**

- **PLANNING**

- **EXPECTED CLIENT OUTCOMES DEPEND ON THE REASON FOR ADMINISTRATION OF THE SEDATIVE OR HYPNOTIC BUT MAY INCLUDE:**
  - **OPTIMAL RESPONSE TO THERAPY**
  - **MANAGEMENT OF ADVERSE DRUG REACTIONS**
  - **CONFIDENCE IN AN UNDERSTANDING OF THE PRESCRIBED MEDICATION REGIMEN**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #6**



- **IMPLEMENTATION**

- **PROMOTING OPTIMAL RESPONSE TO THERAPY**

- **PROVIDE SUPPORTIVE CARE (BACK RUBS, NIGHT LIGHTS, DARKENED ROOM, QUIET ATMOSPHERE)**
- **DISALLOW CONSUMPTION OF BEVERAGES CONTAINING CAFFEINE**
- **DO NOT LEAVE SEDATIVES AND HYPNOTICS UNATTENDED NEAR CLIENT'S BEDSIDE OR IN HALLWAY OR OTHER AREAS**
- **SOME SEDATIVES AND HYPNOTICS SHOULD ONLY BE TAKEN WHEN A PERSON PLANS FOR 7 TO 8 HOURS OF SLEEP DUE TO ADVERSE REACTIONS OF MEMORY LOSS OR AMNESIA**

# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #7

- **IMPLEMENTATION**

- **MONITORING AND MANAGING CLIENT NEEDS**

- **INJURY RISK**

- **OBSERVE CLIENT FOR ADVERSE DRUG REACTIONS AND REPORT TO PRIMARY HEALTH CARE PROVIDER**
- **PROTECT CLIENT FROM HARM AND PROVIDE SUPPORTIVE CARE AND SAFE ENVIRONMENT**
- **ASSESS CLIENT AND DETERMINE SAFETY MEASURES TO BE TAKEN**
- **ASSIST THE CLIENT TO RISE SLOWLY FROM SITTING TO STANDING; ASSIST THE CLIENT TO AMBULATE IF**



# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #8



- **IMPLEMENTATION**

- **MONITORING AND MANAGING CLIENT NEEDS**

- **INJURY RISK**

- **RAISE THE SIDE RAILS OF THE BED; ADVISE CLIENT TO ASK FOR ASSISTANCE TO GET OUT OF BED**
- **ASSESS CLIENT EVERY 1 TO 2 HOURS AFTER THE DRUG IS GIVEN TO EVALUATE EFFECT OF DRUG**
- **REPORT EXCESSIVE DROWSINESS AND HEADACHE THE MORNING AFTER ADMINISTRATION OF THE DRUG TO THE PRIMARY HEALTH CARE PROVIDER**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #9**



- **IMPLEMENTATION**

- **MONITORING AND MANAGING CLIENT NEEDS**

- **INJURY RISK**

- **OUTPATIENT SETTING: CLIENT SHOULD BE TAUGHT NOT TO OPERATE MACHINERY OR COMPLETE POTENTIALLY HAZARDOUS TASKS**
- **OLDER ADULT IS AT GREATER RISK FOR OVERSEDATION, DIZZINESS, CONFUSION, ATAXIA, AND PARADOXICAL REACTION—MONITOR MORE FREQUENTLY AS OFTEN AS 5 TO 10 MINUTES IF EXCITEMENT OR CONFUSION OCCURS**

# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #10



- **IMPLEMENTATION**

- **MONITORING AND MANAGING CLIENT NEEDS**

- **ALTERED BREATHING PATTERN**

- **ASSESS THE RESPIRATORY FUNCTION BEFORE AND FREQUENTLY AFTER ADMINISTERING THE SEDATIVE (30 MINUTES TO 1 HOUR AFTER ADMINISTRATION)**
- **INSTRUCT NOT TO DRINK ALCOHOL DUE TO THE ADDITIVE EFFECT AND INCREASE IN CNS DEPRESSION, WHICH COULD RESULT IN DEATH**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #11**



- **IMPLEMENTATION**

- **MONITORING AND MANAGING CLIENT NEEDS**

- **COPING IMPAIRMENT**

- **ADMINISTER PRESCRIBED DRUGS FOR NO MORE THAN 2 WEEKS**

- **EMPHASIZE IMPORTANCE OF NOT INCREASING OR DECREASING DOSE AND NOT REPEATING DOSES DURING THE NIGHT IF SEEP IS INTERRUPTED**

- **LONG-TERM USE CAUSES DEPENDENCY**

# NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #12

- **IMPLEMENTATION**
  - **MONITORING AND MANAGING CLIENT NEEDS**
    - **COPING IMPAIRMENT**
      - **DECREASE THE DRUG DOSAGE GRADUALLY**
      - **SYMPTOMS OF WITHDRAWAL:**
        - **RESTLESSNESS; EXCITEMENT; EUPHORIA;**
        - **CONFUSION**



# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #13**

- **IMPLEMENTATION—EDUCATING THE CLIENT AND FAMILY**
  - **DEVELOP A TEACHING PLAN FOR THE CLIENT AND FAMILY TO INCLUDE:**
    - **SHORT-TERM USE ONLY**
    - **CONTACT PRIMARY HEALTH CARE PROVIDER FOR INEFFECTIVENESS OR ADVERSE REACTIONS**
    - **NOT TO DRINK ALCOHOLIC BEVERAGES 2 HOURS BEFORE, WITH, OR 8 HOURS AFTER TAKING THE DRUG**
    - **DO NOT DRIVE OR OPERATE MACHINERY**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #14**

- **IMPLEMENTATION—EDUCATING THE CLIENT AND FAMILY**
  - **DEVELOP A TEACHING PLAN FOR THE CLIENT AND FAMILY TO INCLUDE:**
    - **BE CAREFUL WHEN GETTING OUT OF BED AT NIGHT, DIMLY LIT ROOM, REMOVE OBSTACLES**
    - **DO NOT TAKE TRIAZOLAM OR ZALEPLON WITH GRAPEFRUIT JUICE, OTHER DIRECTIONS ABOUT TAKING MEDICATIONS WITH OR WITHOUT FOOD OR FLUID**
    - **TAKE ZOLPIDEM ON AN EMPTY STOMACH**
    - **MOST OFTEN ADMINISTERED A BEDTIME**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #15**

- **IMPLEMENTATION—EDUCATING THE CLIENT AND FAMILY**
  - **DEVELOP A TEACHING PLAN FOR THE CLIENT AND FAMILY TO INCLUDE:**
    - **NOT TO TAKE THESE DRUGS IF PREGNANT, PLANNING ON BECOMING PREGNANT, OR BREASTFEEDING**
    - **NOT TO TAKE OTC COLD, COUGH, OR ALLERGY DRUGS WITH A SEDATIVE OR HYPNOTIC UNLESS PRESCRIBED BY THE PRIMARY HEALTH CARE PROVIDER**

# **NURSING PROCESS—CLIENT RECEIVING A SEDATIVE OR HYPNOTIC #16**

- **EVALUATION**

- **WAS THE THERAPEUTIC EFFECT ACHIEVED? IS THE CLIENT CALM AND RELAXED FOR THE PROCEDURE?**
- **WERE ADVERSE REACTIONS: IDENTIFIED, REPORTED, AND MANAGED?**
  - **NO INJURY IS EVIDENT**
  - **AN ADEQUATE BREATHING PATTERN IS MAINTAINED**
  - **CLIENT MANAGES COPING EFFECTIVELY**
- **DID CLIENT AND FAMILY EXPRESS CONFIDENCE AND DEMONSTRATE UNDERSTANDING OF DRUG REGIMEN?**

# PHARMACOLOGY IN PRACTICE EXERCISE#1

- **WHICH OF THE FOLLOWING DRUGS PURPOSELY INDUCES DROWSINESS?**
  - a) **ANXIOLYTIC**
  - b) **SEDATIVE**
  - c) **HYPNOTIC**
  - d) **OPIOID**

# PHARMACOLOGY IN PRACTICE

## EXERCISE#2

- **A CLIENT UNDERGOING TREATMENT FOR AN ALLERGY IS PRESCRIBED SEDATIVES FOR ANXIETY. WHICH OF THE FOLLOWING MAY BE A POSSIBLE EFFECT OF THE INTERACTION BETWEEN ANTIHISTAMINES AND SEDATIVES?**
  - a) RESTLESSNESS**
  - b) INCREASED SEDATION**
  - c) HEADACHE**
  - d) CHRONIC PAIN**

# PHARMACOLOGY IN PRACTICE

## EXERCISE#3

- A NURSE IS CARING FOR A CLIENT WHO IS PRESCRIBED A SEDATIVE. WHICH OF THE FOLLOWING MEASURES CAN ENSURE AN OPTIMAL RESPONSE TO HYPNOTIC THERAPY? SELECT ALL THAT APPLY.
  - a)BACK RUBS
  - b)ALCOHOL INTAKE
  - c)NIGHT LIGHTS
  - d)DARKENED ROOM
  - e)BEDTIME COFFEE