1. Medication Reviews: Timing of Medications (AM vs. PM)

- **Stimulants (e.g., methylphenidate, amphetamines)** – Given in the **morning** to prevent insomnia.
- **SSRIs (e.g., fluoxetine, sertraline)** – Typically **AM** to avoid activation-related insomnia (**except paroxetine, which may cause sedation).**
- **SNRIs (e.g., venlafaxine, duloxetine)** – Usually **AM** due to activating effects.
- **Benzodiazepines (e.g., lorazepam, clonazepam)** – Can be **PM** if sedating; short-acting ones may be given throughout the day.
- **Antipsychotics (e.g., olanzapine, quetiapine)** – Often **PM** due to sedation.
- **Mood stabilizers:**
  - **Lithium** – Divided doses, sometimes **PM** if sedation occurs.
  - **Valproate** – **PM** due to sedation.
- **Melatonin, Ramelteon** – **PM** to regulate circadian rhythm.

Example: A patient taking fluoxetine in the evening complains of insomnia. Switch dosing to the morning.

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2. Medication Reviews: Common Medications (Class, Purpose, Side Effects)

Medication	Class	Purpose	Common Side Effects
Fluoxetine	SSRI	Depression, anxiety, OCD	Insomnia, agitation, GI upset
Bupropion	NDRI	Depression, smoking cessation	Seizure risk, **weight loss,** anxiety
Olanzapine	Atypical antipsychotic	Schizophrenia, bipolar disorder	Weight gain, sedation, metabolic syndrome
Lithium	Mood stabilizer	Bipolar disorder	Tremor, polyuria, thyroid dysfunction

Clonazepam	Benzodiazepine	Anxiety, panic disorder	Sedation, dependence
Methylphenidate	Stimulant	ADHD	Insomnia, decreased appetite

Example: A patient with depression and fatigue might benefit from bupropion over fluoxetine to avoid sedation.

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3. Review of Enuresis (Bedwetting)

- **Types:**
  - **Primary enuresis** – Never been dry for 6+ months.
  - **Secondary enuresis** – Relapse after dryness.
- **Causes:**
  - Delayed bladder maturation
  - Low vasopressin levels (reduced night-time urine concentration)
  - Psychological stress
  - Genetics (family history is common)
- **Treatment:**
  - **Behavioral** – Limit fluids at night, bladder training.
  - **Medications**:
    - **Desmopressin (DDAVP)** – First-line for reducing urine output.
    - **Imipramine** (TCA) – Rarely used due to cardiac risks.
    - **Oxybutynin** – If bladder overactivity is suspected.

Example: A 10-year-old with primary enuresis might respond to DDAVP after failed behavioral modifications.

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4. Erectile Dysfunction (ED): Statistics, Causes, and Treatments

- **Prevalence**: ~30% in men aged 40–70.
- **Causes**:
  - **Vascular** (hypertension, diabetes, atherosclerosis)
  - **Neurologic** (MS, spinal cord injuries)
  - **Psychological** (anxiety, depression)
  - **Medication-induced** (SSRIs, beta-blockers)
  - **Hormonal** (low testosterone)

- **Treatment**:
  - **Lifestyle**: Exercise, smoking cessation.
  - **Medications**:
    - **PDE-5 inhibitors** (sildenafil, tadalafil) – First-line.
    - **Testosterone replacement** – If hypogonadism is diagnosed.
  - **Therapy**: CBT for psychogenic ED.

Example: A hypertensive patient on beta-blockers develops ED; consider switching to an angiotensin receptor blocker (ARB).

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5. Obtaining a Sexual History

- **Key Questions (5 P's)**:
  - **Partners** (number, gender)
  - **Practices** (oral, vaginal, anal)
  - **Protection** (condom use, contraception)
  - **Past STIs** (history of infections)
  - **Pregnancy prevention** (if relevant)
- **Approach**:
  - Ensure confidentiality.
  - Normalize questions (e.g., "I ask all patients these questions").
  - Use open-ended questions.

Example: Instead of "Do you have STIs?" ask, "Have you ever had any concerns about infections?"

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6. Female Sexual Dysfunction (Types, Diagnosis, Etiology, Treatment)

- **Types**:
  - **Hypoactive sexual desire disorder (HSDD)** – Persistent lack of interest.
  - **Arousal disorder** – Inability to maintain arousal.
  - **Orgasmic disorder** – Delay or absence of orgasm.
  - **Genito-pelvic pain/penetration disorder** – Pain during intercourse.
- **Causes**:
  - Hormonal (low estrogen/testosterone)
  - Psychological (depression, trauma)
  - Medication-induced (SSRIs, antihypertensives)
- **Treatment**:
  - **Psychotherapy** (CBT, sex therapy)
  - **Medications**:

- **Flibanserin** – HSDD treatment (pre-menopausal women).
- **Bupropion** – May help SSRI-induced dysfunction.
- **Topical estrogen** – Vaginal dryness.

Example: A woman on sertraline with anorgasmia may benefit from a bupropion adjunct.

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7. Sexual Dysfunction and Lack of Desire

- **Medications that cause sexual dysfunction**:
  - SSRIs, antipsychotics, beta-blockers, opioids.
- **Treatment strategies**:
  - Dose reduction or switching medications.
  - **Phosphodiesterase inhibitors (e.g., sildenafil) for men.**
  - **Bupropion or buspirone for SSRI-induced dysfunction.**
  - **Psychotherapy for performance anxiety.**

Example: A patient on fluoxetine with reduced libido may benefit from switching to bupropion.

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8. Essential Features of Sexual Dysfunction

- **Persistent symptoms for ≥6 months**
- **Causing significant distress**
- **Not explained by other medical or psychiatric conditions**
- **Not due to substance use**
- DSM-5 Categories:
  - Male hypoactive sexual desire disorder
  - Erectile disorder
  - Female orgasmic disorder
  - Genito-pelvic pain disorder

Example: A woman with lifelong anorgasmia without distress does **not** meet DSM-5 criteria for a disorder.

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9. Circadian Rhythm Sleep-Wake Disorder Treatments

- **Types**:
  - Delayed Sleep Phase Disorder (DSPD) – Difficulty falling asleep/waking late.
  - Advanced Sleep Phase Disorder (ASPD) – Early sleep onset/wake time.

- Non-24-Hour Sleep-Wake Disorder – Seen in blind individuals.
- Shift Work Disorder – Insomnia and daytime sleepiness due to work shifts.

- **Treatment**:
  - **Behavioral**: Sleep hygiene, fixed sleep schedule.
  - **Light therapy**: Bright light in the **morning** for DSPD; **evening** for ASPD.
  - **Melatonin**: Low dose **before bedtime** (especially for DSPD).
  - **Modafinil/Armodafinil**: For shift work disorder.

Example: A night shift worker with daytime sleepiness may benefit from modafinil.

Medical Management of Insomnia

- **First-line treatment**: Cognitive Behavioral Therapy for Insomnia (CBT-I).
- **Pharmacologic options** (if necessary):*Temazepam, Flurazepam, triazolam
  - **Benzodiazepine receptor agonists (BZRAs)**:
    - **Zolpidem (Ambien)** – Short-term use, reduces sleep latency.
    - **Eszopiclone (Lunesta)** – Longer half-life, better for sleep maintenance.
    - **Zaleplon (Sonata)** – Short half-life, good for middle-of-the-night awakenings.
  - **Benzodiazepines**:
    - **Temazepam (Restoril), Triazolam** – Risk of dependence, falls in elderly.
    - Triazolam may be associated with mild rebound anxiety and anterograde amnesia
  - **Melatonin agonists**:
    - **Ramelteon (Rozerem)** – For sleep-onset insomnia, non-habit forming.
  - **Orexin receptor antagonists**:
    - **Suvorexant, Lemborexant** – For sleep maintenance insomnia.
  - **Antidepressants with sedating properties**:
    - **Trazodone** – Commonly used in depression-related insomnia.
    - **Doxepin** – Low dose for sleep maintenance.

Example: A 70-year-old with a history of falls should avoid benzodiazepines and may benefit from doxepin.

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2. Non-Pharmacological Management of Insomnia

- **CBT-I** (most effective, long-term benefit)
  - **Sleep restriction therapy** – Reducing time in bed to consolidate sleep.
  - **Stimulus control** – Bed is for sleep/sex only.
  - **Cognitive therapy** – Addressing maladaptive thoughts about sleep.
- **Sleep hygiene**:
  - No caffeine/alcohol before bed.

- No screens before sleep.
- Keep a consistent sleep schedule.

- **Relaxation techniques**:
  - Progressive muscle relaxation.
  - Meditation, mindfulness.

Example: A patient who wakes up frequently worrying may benefit from cognitive therapy.

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3. Stages of Sleep

1. **NREM Stage 1** (Light Sleep) – Transition between wakefulness & sleep.
2. **NREM Stage 2** – **Theta waves, sleep spindles, and K-complexes.**
3. **NREM Stage 3 (Slow-Wave Sleep)** – Delta waves, **deep sleep, growth hormone release.**
4. **REM Sleep** – **Rapid eye movement, dreaming, muscle atonia, memory consolidation.**

Example: A patient with sleep apnea spends less time in **slow-wave sleep**.

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4. Comorbidities of Sleep Disorders

- **Insomnia** – Depression, anxiety, PTSD.
- **Obstructive Sleep Apnea (OSA)** – Hypertension, cardiovascular disease, diabetes.
- **Narcolepsy** – **Autoimmune disorders, cataplexy.**
- **Restless Legs Syndrome (RLS)** – **Iron deficiency, renal disease, Parkinson's.**

Example: A patient with untreated OSA may have **resistant hypertension**.

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5. Diagnostic Workup for Complex/Atypical Sleep Disorders

- **Polysomnography (PSG)** – Gold standard for OSA, REM behavior disorder.
- **Multiple Sleep Latency Test (MSLT)** – Diagnoses narcolepsy.
- **Actigraphy** – Assesses sleep-wake patterns over time.
- **Home Sleep Apnea Test (HSAT)** – For suspected OSA in low-risk patients.
- **Blood work** – Iron studies for RLS, thyroid function for hypersomnia.

Example: A patient with excessive daytime sleepiness and **2-minute sleep onset in MSLT** may have **narcolepsy**.