Green – Tobacco cessation, also present in PT1 (This was due to a rearrangement of the PT sequence schedule. Smoking Cessation is now in PT1 only).

CO01: Describe patient and environmental characteristics that impact development of selected disease states

CO01.01: SMOKING CESSATION: Discuss the epidemiology of tobacco use.

CO01.02: SMOKING CESSATION: List the different types of tobacco products that exist and are used today.

CO01.03: DIABETES: Describe differences in epidemiology of type 1 and type 2 based on age, sex, race/ethnicity, and family history.

CO01.04: DIABETES: Distinguish precipitating factors for the following acute complications of diabetes mellitus (DM): Hypoglycemia, Hyperglycemic crises, Diabetic ketoacidosis (DKA), Hyperglycemia hyperosmolar state (HHS)

CO01.05: PUD/GERD: Compare and contrast Helicobacter pylori -associated ulcers, NSAID-induced ulcers, as it relates to etiologic and risk factors, pathophysiologic mechanisms, signs and symptoms, clinical course, and prognosis. (Duplicate 28a)

CO01.06: BPH: Mention drugs that may exacerbate symptoms related to BPH.

CO01.07: ED: Define erectile dysfunction (ED) and risk factors associated with the development of ED.

CO01.08: ED: List drugs that can contribute to development of ED.

CO01.09: OSTEOPOROSIS: Indicate populations at risk for osteopenia/osteoporosis.

CO01.10: OSTEOPOROSIS: Identify patient-specific risk factors affecting bone health.

CO01.11: SCHIZOPHRENIA: Discuss the prevalence and epidemiology of schizophrenia.

CO01.12: ADD/ADHD: Discuss prevalence and epidemiology of ADD/ADHD.

CO01.13: PARKINSONS: Identify demographics, presentation, etiologies, and course of illness in patients with Parkinson’s Disease (PD). (Duplicate 29a)

CO01.14: HEADACHE: List underlying causes and precipitating factors.

CO01.15: ASTHMA: Discuss the etiology and pathophysiology of asthma in adults. (Duplicate 30a)

CO01.16: COPD: Discuss the etiology and pathophysiology of COPD in adults. (Duplicate 31a)

CO01.17: RHEUMATOID: Identify common symptoms and risk factors associated with rheumatoid arthritis (RA). (Duplicate 32a)

CO01.18: OSTEOARTHRITIS: Identify common symptoms and risk factors associated with OA. (Duplicate 33a)

CO01.19: DEPRESSION: Identify chronic illnesses that may cause depressive symptoms

CO01.20: SLEEP DISORDERS: List causes of sleep disorders. (Duplicate 61a)

CO01.21: SEIZURES: Detect potential causes of seizures. (Duplicate 62a)

CO02: Describe/Review the pathophysiology of selected disease states

CO02.01: DIABETES: Define diabetes mellitus

CO02.02: DIABETES: Compare and contrast type 1 and type 2 diabetes presentation, onset, characteristics, progression, and pathophysiology. (Duplicate 34a)

CO02.03: PUD/GERD: Explain the pathophysiologic mechanisms associated with gastroesophageal reflux disease (GERD).

CO02.04: PUD/GERD: Compare and contrast Helicobacter pylori-associated ulcers, NSAID-induced ulcers, as it relates to etiologic and risk factors, pathophysiologic mechanisms, signs and symptoms, clinical course, and prognosis. (Duplicate 28b)

CO02.05: DRUGS IN PREGNANCY: Discuss the factors that may contribute to fetal malformations.

CO02.06: CONTRACEPTION: Describe the pathophysiology of the menstrual cycle.

CO02.07: MEDICATION USE IN ELDERLY: Describe the physiologic changes that occur as one ages.

CO02.08: GLAUCOMA: Define glaucoma and generally describe its pathophysiology.

CO02.09: OSTEOPOROSIS: Describe the pathophysiology of osteoporosis.

CO02.10: ALZHEIMERS: Discuss the pathophysiology behind Alzheimer’s Disease.

CO02.11: DEPRESSION: Describe pathophysiologic theories of depression.

CO02.12: SCHIZOPHRENIA: Explain the pathophysiology of schizophrenia.
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CO02.13: BIPOLAR: Describe pathophysiologic characteristics, and presentation (signs and symptoms) of bipolar disorder (BPD). (Duplicate 35a)
CO02.14: ADD/ADHD: Describe pathophysiologic theories of ADD/ADHD.
CO02.15: SLEEP DISORDERS: Discuss the basic principles of circadian rhythms and sleep patterns.
CO02.16: SLEEP DISORDERS: List causes of sleep disorders (Duplicate 60b).
CO02.17: SEIZURES: Understand the various types of seizures.
CO02.18: SEIZURES: Detect potential causes of seizures. (Duplicate 62b)
CO02.19: ASTHMA: Discuss the etiology and pathophysiology of asthma in adults. (Duplicate 30b)
CO02.20: COPD: Discuss the etiology and pathophysiology of COPD in adults. (Duplicate 31b)
CO02.21: RHEUMATOID: Describe the pathophysiology and laboratory parameters of RA. (Duplicate 63a)
CO02.22: PAIN: Describe the pathophysiology of pain.
CO02.23: OSTEOARTHRITIS: Explain the pathophysiology of osteoarthritis (OA).
CO02.24: OSTEOARTHRITIS: Distinguish between RA and OA. (Duplicate 36a)
CO02.25: GOUT: Explain the pathophysiology of gout.
CO02.26: URINARY INCONTINENCE: Identify different types of urinary incontinence (UI).
CO02.27: BPH: Define Benign Prostatic Hyperplasia (BPH) and associated signs and symptoms. (Duplicate 64a)

CO03: Recognize presenting signs and symptoms of specified health care problems
CO03.01: SMOKING CESSATION: List the symptoms of nicotine withdrawal.
CO03.02: DIABETES: Compare and contrast type 1 and type 2 diabetes presentation, onset, characteristics, progression, and pathophysiology. (Duplicate 34b)
CO03.03: THYROID: Describe the signs and symptoms of hyperthyroidism and hypothyroidism.
CO03.04: PUD/GERD: Identify alarm symptoms that mandate further diagnostic evaluation in the setting of GERD.
CO03.05: PUD/GERD: Compare and contrast Helicobacter pylori -associated ulcers, NSAID-induced ulcers, as it relates to etiologic and risk factors, pathophysiologic mechanisms, signs and symptoms, clinical course, and prognosis. (Duplicate 28c)
CO03.06: URINARY INCONTINENCE: Identify the signs and symptoms related to UI.
CO03.07: BPH: Define Benign Prostatic Hyperplasia (BPH) and associated signs and symptoms. (Duplicate 64b)
CO03.08: MENSTRUAL DISORDERS: Describe the clinical presentation of amenorrhea, menorrhagia, anovulatory bleeding, dysmenorrhea, and premenstrual dysphoric disorder.
CO03.09: GLAUCOMA: Recognize the difference between different types of glaucoma.
CO03.10: INTRO TO MENTAL HEALTH: Differentiate between movement disorders.
CO03.11: DEPRESSION: Identify clinical signs and symptoms of depression.
CO03.12: ANXIETY: Identify symptoms of different anxiety disorders.
CO03.13: SCHIZOPHRENIA: Describe the clinical presentations of schizophrenia.
CO03.14: BIPOLAR: Describe pathophysiologic characteristics, and presentation (signs and symptoms) of bipolar disorder (BPD). (Duplicate 35b)
CO03.15: ADD/ADHD: Discuss clinical signs and symptoms of ADD/ADHD.
CO03.16: PARKINSONS: Identify demographics, presentation, etiologies, and course of illness in patients with Parkinson’s Disease (PD). (Duplicate 29c)
CO03.17: HEADACHE: Differentiate among types of headaches based on signs and symptoms.
CO03.18: ASTHMA: Describe clinical signs and symptoms associated with asthma.
CO03.19: COPD: Describe clinical signs and symptoms associated with obstructive lung diseases.
CO03.20: COPD: Apply updates to assessment of risk and presentation of symptoms for appropriate classification of disease.
CO03.21: RHEUMATOID: Identify common symptoms and risk factors associated with rheumatoid arthritis (RA). (Duplicate 32b)
CO03.22: PAIN: Distinguish between acute and chronic pain.
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CO03.23: OSTEOARTHRITIS: Identify common symptoms and risk factors associated with OA. (Duplicate 33b)
CO03.24: OSTEOARTHRITIS: Distinguish between RA and OA. (Duplicate 36b)

CO04: Interpret relevant diagnostic tests and laboratory values
CO04.01: DIABETES: List the plasma glucose levels that diagnose a patient with: impaired fasting glucose, impaired glucose tolerance, or diabetes mellitus and the hemoglobin A1C values that denote high risk of diabetes or diabetes mellitus.
CO04.02: DIABETES: Interpret diagnostic criteria for DKA and HHS.
CO04.03: THYROID: Outline the changes seen in thyroid function tests (free and total triiodothyronine [T3] and thyroxine [T4], and thyroid-stimulating hormone [TSH]) in hyperthyroidism and hypothyroidism.
CO04.04: OSTEOPOROSIS: Discuss diagnostic tests for osteoporosis, including the interpretation of T-scores.
CO04.05: RHEUMATOID: Describe the pathophysiology and laboratory parameters of RA. (Duplicate 63b)

CO05: Identify complications of selected disease states and pharmacologic therapy
CO05.01: SMOKING CESSATION: List the health risks associated with long term tobacco use.
CO05.02 SMOKING CESSATION: Describe the health benefits associated with tobacco cessation.
CO05.03 DIABETES: Identify common concomitant conditions and complications associated with diabetes mellitus
CO05.04 MENSTRUAL DISORDERS: Identify the potential negative health implications of amenorrhea, menorrhagia, and polycystic ovarian syndrome.
CO05.05 MENOPAUSE: Describe the risks and benefits of short-term and long-term hormone therapy for the treatment of menopausal symptoms.
CO05.06 MENOPAUSE: List the benefits and risks of hormone therapy for osteoporosis prevention.
CO05.07 MEDICATION USE IN THE ELDERLY: Describe the problems resulting from polypharmacy.

CO06: Develop patient specific goals of therapy
CO06.01: DIABETES: Describe goals and monitoring parameters for common concomitant conditions and complications associated with diabetes mellitus. (Duplicate 37a)
CO06.02: DIABETES: Evaluate therapeutic outcomes by describing common quality of care measures used and the optimal numbers for each measure.
CO06.03: THYROID: Outline the end point and monitoring of therapy for levothyroxine. (Duplicate 38a)
CO06.04: SCHIZOPHRENIA: Identify the goals of treatment for schizophrenia.
CO06.05: ASTHMA: Apply current management guidelines and treatment goals for asthma to develop Asthma Action Plans. (Duplicate 65a)
CO06.06: COPD: Recommend appropriate pharmacotherapy and treatment goals utilizing current management guidelines and develop a COPD Action Plan. (Duplicate 66a)

CO07: Select and adjust pharmacologic agents for the prevention or treatment of a selected disease based on
CO07.01: SMOKING CESSATION: Describe and recommend pharmacologic aids for cessation based on patient factors including dosing, instructions for use, side effects and precautions.
CO07.02 DIABETES: Apply evidence-based recommendations to non-pharmacologic and pharmacologic treatment interventions and goals for diabetes mellitus. (Duplicate 39a)
CO07.03 DIABETES: Construct rationale therapeutic regimens for treatment of type 1 diabetes mellitus and type 2 diabetes mellitus.
CO07.04 DIABETES: Discuss the specialized needs for the treatment of diabetes mellitus in special populations. (adolescents, elderly, gestational diabetes, having diabetes while pregnant).
CO07.05 DIABETES: Develop treatment regimens (non-pharmacologic and pharmacologic) for common concomitant conditions and complications associated with diabetes mellitus. (Duplicate 40a)
CO07.06 DIABETES: Propose a treatment plan for a patient experiencing a hyperglycemic crisis.
CO07.07 PUD/GERD: Develop a pharmaceutical care plan for managing a patient with GERD. (Duplicate 41a)
CO07.08 PUD/GERD: Recommend the appropriate management of an H. pylori–positive patient with H. pylori–associated initial ulcer, recurrent ulcer, or penicillin allergy given current symptomatology and historical information.

CO07.09 PUD/GERD: Recommend the appropriate management of a patient taking a nonselective NSAID at risk for ulcer-related complications given symptomatology and historical information.

CO07.10: PUD/GERD: Recommend the appropriate management of a patient taking a nonselective NSAID diagnosed with an active ulcer given current symptomatology and historical information.

CO07.11: URINARY INCONTINENCE: Recommend appropriate therapy based on patient specific characteristics.

CO07.12: BPH: Recommend appropriate therapy based on patient specific characteristics.

CO07.13: ED: Provide a brief description of the common therapies available for treating ED.

CO07.14: MENSTRUAL DISORDERS: Select appropriate pharmacologic interventions for patients with amenorrhea, menorrhagia, anovulatory bleeding, dysmenorrhea, premenstrual symptoms, and premenstrual dysphoric disorder.

CO07.15: MENSTRUAL DISORDERS: Evaluate the pharmacologic management of polycystic ovarian syndrome.

CO07.16: MENOPAUSE: Design an appropriate hormonal or nonhormonal treatment regimen for a symptomatic postmenopausal woman.

CO07.17: DRUGS IN PREGNANCY: Describe factors to consider when selecting drug therapy in a lactating woman.

CO07.18: MEDICATION USE IN THE ELDERLY: Discuss the appropriate use of medications in patients with diminished renal function.

CO07.19: GLAUCOMA: Recommend appropriate therapy for glaucoma based on patient specific characteristics.

CO07.20: OSTEOPOROSIS: Detect issues with the patient’s current drug therapy regimen for osteoporosis.

CO07.21: OSTEOPOROSIS: Recommend appropriate pharmacological therapy (including dosing) for osteoporosis.

CO07.22: ALZHEIMERS: Describe the treatments for the behavioral symptoms of AD.

CO07.23: DEPRESSION: Design individualized therapy for depression using PK concepts in patients with concomitant disease. (Duplicate 42a)

CO07.24: ANXIETY: Develop a specific treatment plan for a patient with an anxiety disorder.

CO07.25: SCHIZOPHRENIA: Develop a treatment plan for schizophrenia considering patient specific factors.

CO07.26: SCHIZOPHRENIA: Discuss appropriate management of adverse events associated with therapy for schizophrenia.

CO07.27: BIPOLAR: Develop a treatment plan addressing drug-related problems and provide patient education about medications. (Duplicate 43a)

CO07.28: SLEEP DISORDERS: Identify appropriate non-pharmacologic and pharmacologic therapies for sleep disorders. (Duplicate 44a)

CO07.29: PARKINSONS: Develop a treatment plan and provide counseling about medications regarding early and late phases of PD utilizing evidence-based medicine. (Duplicate 45a)

CO07.30: PARKINSONS: Formulate a treatment plan to manage a patient with PD’s motor and non-motor symptoms.

CO07.31: HEADACHE: Recommend appropriate pharmacologic measures based on patient specific data.

CO07.32: SEIZURES: Formulate an appropriate therapeutic plan for patients with epilepsy.

CO07.33: ASTHMA: Apply current management guidelines and treatment goals for asthma to develop Asthma Action Plans. (Duplicate 65b)

CO07.34: ASTHMA: Recommend appropriate step therapy utilizing components of severity and control.
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CO07.35: COPD: Recommend appropriate pharmacotherapy and treatment goals utilizing current management guidelines and develop a COPD Action Plan. (Duplicate 66b)
CO07.36: RHEUMATOID: Determine appropriate pharmacotherapeutic agents for patients with RA based on disease progression and side effects.
CO07.37: PAIN: Evaluate pharmacotherapeutic agents used for pain management including dosage, indication, and side effects.
CO07.38: GOUT: Determine when prophylactic therapy should be initiated in patients with gout.
CO07.39: DRUGS IN PREGNANCY: Recommend strategies to minimize drug concentrations in milk in lactating woman.

CO08: Select non-pharmacologic treatment modalities for the prevention or treatment of a selected disease

CO08.01: SMOKING CESSATION: Describe non-pharmacologic aids for cessation and their role in treatment.
CO08.02: SMOKING CESSATION: List and apply the 5 A’s and 5 R’s to a clinical situation with a patient.
CO08.03: DIABETES: Apply evidence-based recommendations to non-pharmacologic and pharmacologic treatment interventions and goals for diabetes mellitus. (Duplicate 39b)
CO08.04: DIABETES: Identify key elements to the success of non-pharmacologic interventions for the treatment of type 1 and type 2 diabetes mellitus.
CO08.05: DIABETES: Develop treatment regimens (non-pharmacologic and pharmacologic) for common concomitant conditions and complications associated with diabetes mellitus. (Duplicate 40b)

CO08.06: PUD/GERD: Develop a pharmaceutical care plan for managing a patient with GERD. (Duplicate 41b)
CO08.07: MENSTRUAL DISORDERS: Identify appropriate lifestyle and dietary modifications for patients with amenorrhea, menorrhagia, anovulatory bleeding, dysmenorrhea, premenstrual symptoms, and premenstrual dysphoric disorder.
CO08.08: MENOPAUSE: Describe alternative nonhormonal options for the management of menopausal symptoms.
CO08.09: SLEEP DISORDERS: Identify appropriate non-pharmacologic and pharmacologic therapies for sleep disorders. (Duplicate 44b)

CO09: Select appropriate monitoring endpoints for efficacy and toxicity

CO09.01: DIABETES: Describe goals and monitoring parameters for common concomitant conditions and complications associated with diabetes mellitus. (Duplicate 37b)
CO09.02: THYROID: Outline the end point and monitoring of therapy for levothyroxine. (Duplicate 38b)

CO09.04: MENSTRUAL DISORDERS: Design a monitoring plan to assess the pharmacotherapeutic efficacy for the treatment of amenorrhea, menorrhagia, anovulatory bleeding, premenstrual symptoms, and premenstrual dysphoric disorder.
CO09.05: MENOPAUSE: Create a patient-specific monitoring plan for a perimenopausal or postmenopausal woman on a given hormonal regimen.
CO09.06: MEDICATION USE IN THE ELDERLY: List common medications used in the geriatric population that can cause impairment or complications. (Duplicate 68a)
CO09.07: OSTEOPOROSIS: Develop a patient-centered monitoring plan for osteoporosis taking into consideration: efficacy, adverse effects profile, and compliance issues with therapy.
CO09.08: ANXIETY: Recognize adverse events and monitoring parameters for anxiety disorders. (Duplicate 46a)
CO09.09: SCHIZOPHRENIA: List appropriate monitoring parameters for efficacy and toxicity for treatment of schizophrenia.
CO09.10: PARKINSONS: Compare and contract the mechanism of action, indications, adverse effects, and related monitoring parameters of various medications used for treatment of PD. (Duplicate 47a)

CO10: Apply knowledge of drug specific characteristics (dose mechanism, side effects, contraindications, 

CO10.01: DIABETES: Describe the pharmacology, pharmacokinetics, side effects, drug interactions, and proper dosing of commonly used medications for diabetes mellitus.

CO10.02: THYROID: Describe the mode of action, patient selection, maintenance and maximal doses, drug interactions, and adverse effects for thionamides, radioactive iodine (RAI), beta-blockers, and iodides.

CO10.03: THYROID: Compare and contrast the products available for thyroid supplementation in hypothyroidism; describe the drug of choice.

CO10.04: THYROID: Outline the starting and maintenance doses and adverse effects for levothyroxine

CO10.05: PUD/GERD: Compare and contrast the differences between patient-directed therapy, pharmacologic therapy (with acid suppression agents), and interventional approaches to treating GERD.

CO10.06: PUD/GERD: Discuss the benefits of proton pump inhibitors over H2-receptor antagonists in the treatment of moderate-to-severe GERD.

CO10.07: URINARY INCONTINENCE: List and compare classes of drugs used for UI based on the following criteria: indication, mechanism of action, adverse effects, contraindications, and drug interactions

CO10.08: BPH: List and compare classes of drugs used for BPH based on the following conditions: mechanism of action, adverse effects, and drug interactions.

CO10.09: ED: List and compare classes of drugs used for ED based on the following conditions: mechanism and duration of action, adverse effects, and drug interactions.

CO10.10: DRUGS IN PREGNANCY: Identify medications which have been shown to cause adverse effects to the fetus.

CO10.11: CONTRACEPTION: Compare and contrast different non-pharmacologic and pharmacologic methods of contraception.

CO10.12: CONTRACEPTION: Describe the role of estrogen and progestin in OCs.

CO10.13: CONTRACEPTION: Describe the differences between monophasic, biphasic, triphasic and quadriphasic.

CO10.14: CONTRACEPTION: Identify ADRs of contraceptives.

CO10.15: CONTRACEPTION: List contraindications and precautions of OCs.

CO10.16: CONTRACEPTION: List the advantages and disadvantages of different methods of contraception.

CO10.17: SPECIAL CONSIDERATIONS IN ELDERLY: List medications that may be cause cognitive impairment or increase the risk of falls in the elderly.

CO10.18: MEDICATION USE IN THE ELDERLY: Describe common adverse drug reactions in the elderly and how to appropriately counsel. (Duplicate 67a)

CO10.19: MEDICATION USE IN THE ELDERLY: List common medications used in the geriatric population that can cause impairment or complications. (Duplicate 68b)

CO10.20: GLAUCOMA: List and compare classes of drugs used for the treatment of glaucoma based on the following criteria: indication, mechanism of action, efficacy, adverse effects, drug interactions, and drug-disease interactions.

CO10.21: OSTEOPOROSIS: Describe categories of pharmacological agents used in osteoporosis, including their mechanism of action and common side effects.

CO10.22: ALZHEIMERS: Compare the current treatment options for Alzheimer’s disease, including their mechanism of action, side effects, and pharmacokinetics.

CO10.23: DEPRESSION: List antidepressants by class and MOA

CO10.24: DEPRESSION: Identify potential adverse events and contraindications of antidepressants.
CO10.25: ANXIETY: Compare and contrast different pharmacological agents used for anxiety disorder.
CO10.26: ANXIETY: Recognize adverse events and monitoring parameters for anxiety disorders. (Duplicate 46b)
CO10.27: SCHIZOPHRENIA: Identify drug interactions with antipsychotics.
CO10.28: BIPOLAR: Compare and contrast medications approved for treatment of BPD.
CO10.29: BIPOLAR: Describe MOA, dosing, adverse events, and drug interactions of medications for BPD.
CO10.30: ADD/ADHD: List medications used in ADD/ADHD by class, MOA, and duration of action.
CO10.31: ADD/ADHD: Identify products used in ADD/ADHD which carry special considerations or kinetic parameters. (Duplicate 48a)
CO10.32: ADD/ADHD: Identify potential adverse events and contra-indications for medications used in ADD/ADHD.
CO10.33: SLEEP DISORDERS: Describe side effects and drug interactions of selected drug therapy.
CO10.34: PARKINSONS: Compare and contrast the mechanism of action, indications, adverse effects, and related monitoring parameters of various medications used for treatment of PD. (Duplicate 47b)
CO10.35: HEADACHE: List and compare classes of drugs used for the treatment of headaches based on the following criteria: mechanism of action, efficacy, adverse effects, drug interactions, drug-disease interactions, and administration route.
CO10.36: ASTHMA: Differentiate MOA and application of medications indicated for the treatment of asthma, including onset of action, duration and clinical utility.
CO10.37: COPD: Differentiate MOA and application of pharmacologic and non-pharmacologic treatments, including onset of action, duration and clinical utility.
CO10.38: RHEUMATOID: Compare and contrast DMARDs biologic and non-biologic agents.
CO10.39: OSTEOARTHRITIS: Compare and contrast pharmacotherapeutic agents used for OA including NSAIDS, COX-2 inhibitors, aspirin and acetaminophen.
CO10.40: GOUT: Compare and contrast pharmacotherapeutic agents used for gout.

CO11.01: DIABETES: Prepare proper counseling and education of a patient with diabetes mellitus to maximize outcomes.
CO11.02: URINARY INCONTINENCE: Design appropriate counseling information for a patient regarding medication and non-pharmacological therapies for the management of UI.
CO11.03: BPH: Appropriately counsel a patient regarding medication and non-pharmacological therapies for the management of BPH.
CO11.04: ED: Design appropriate counseling information for a patient regarding medication and non-pharmacological therapies for the management of ED.
CO11.05: GLAUCOMA: Appropriately counsel a patient regarding glaucoma, medication options, ophthalmic administration technique, and the importance of regular eye examinations and adherence with medication in the management of glaucoma.
CO11.06: OSTEOPOROSIS: Design appropriate counseling information for a patient regarding bone health and medication/non-pharmacological therapies.
CO11.07: DEPRESSION: Identify appropriate patient counseling points regarding depression and agents used.
CO11.08: ANXIETY: List patient educational principles on specific pharmacological agents used for anxiety.
CO11.09: ADD/ADHD: Discuss patient education regarding ADHD and agents used.
CO11.10: BIPOLAR: Develop a treatment plan addressing drug-related problems and provide patient education about medications. (Duplicate 43b)
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CO11.11: PARKINSONS: Develop a treatment plan and provide counseling about medications regarding early and late phases of PD utilizing evidence-based medicine. (Duplicate 45b)
CO11.12: HEADACHE: Design appropriate counseling information for a patient regarding: preventing measures, treatment options, and non-pharmacological alternatives, for the management of headaches.
CO11.15: MEDICATION USE IN THE ELDERLY: Describe common adverse drug reactions in the elderly and how to appropriately counsel. (Duplicate 67b)

CO12: Apply the principles of pharmacokinetics, pharmacodynamics, and pharmacogenomics to selected
CO12.01: SPECIAL CONSIDERATIONS IN THE ELDERLY: Identify physiologic changes in the elderly that affect drug distribution.
CO12.02: SPECIAL CONSIDERATIONS IN THE ELDERLY: Perform pharmacokinetic adjustments for renal clearance in elderly patients, if necessary.
CO12.03: DEPRESSION: Design individualized therapy for depression using PK concepts in patients with concomitant disease. (Duplicate 42b)
CO12.04: BIPOLAR: Design individualized therapy using PK concepts in patients with bipolar disorder and concomitant disease.
CO12.05: ADD/ADHD: Identify products used in ADD/ADHD which carry special considerations or kinetic parameters. (Duplicate 48b)
CO12.06: SEIZURES: Compare and contrast the pharmacokinetics and pharmacodynamics of: phenytoin, fosphenytoin, carbamazepine, valproic acid, phenobarbital.
CO12.07: SEIZURES: Given patient data be able to individualize therapy using PK concepts in patients with concomitant disease.
CO12.08: ASTHMA: Design individualized therapy using PK concepts in patients with concomitant disease.
CO12.09: RHEUMATOID: Describe the pharmacokinetic profiles of agents used in the management of rheumatoid arthritis (RA).
CO12.10: RHEUMATOID: Determine when dosage adjustments should be made especially regarding absorption and metabolism.

CO13: Other
CO13.01: DRUGS IN PREGNANCY: Explain the FDA Pregnancy Categories & the proposed changes to the current categories.
CO13.02 INTRO TO MENTAL HEALTH: Differentiate AXIS diagnosis.
CO13.03 INTRO TO MENTAL HEALTH: Identify the steps of the clinical interview.
CO13.04 INTRO TO MENTAL HEALTH: Identify and differentiate between the several common psychiatric scales/inventories.