Professional Certificate in Geriatric and Adult Care

Pharmacotherapy in Older Adults

Pharmacotherapy in Older Adults: Key Terms and Vocabulary

As the population ages, it is increasingly important for healthcare professionals to understand the unique considerations surrounding medication use in older adults. This course focuses on the principles and practices of pharmacotherapy in geriatric and adult care. In this explanation, we will cover key terms and vocabulary that are essential to understanding pharmacotherapy in older adults.

Adverse Drug Reaction (ADR): An ADR is an unintended and harmful reaction to a medication that occurs at normal doses. ADRs are a significant concern in older adults due to age-related changes in pharmacokinetics and pharmacodynamics. Examples of ADRs include delirium, falls, and bleeding.

Pharmacokinetics: Pharmacokinetics refers to how a medication is absorbed, distributed, metabolized, and excreted by the body. Age-related changes in pharmacokinetics can lead to altered medication effects in older adults. For example, decreased renal function can lead to increased drug accumulation and toxicity.

Pharmacodynamics: Pharmacodynamics refers to the biochemical and physiological effects of a medication on the body. Age-related changes in pharmacodynamics can result in altered medication sensitivity and response in older adults. For example, decreased beta-receptor sensitivity can lead to decreased effectiveness of beta-agonists in treating asthma.

Polypharmacy: Polypharmacy refers to the use of multiple medications by a single individual. Polypharmacy is common in older adults due to the presence of multiple chronic conditions. However, polypharmacy can increase the risk of ADRs, medication interactions, and medication non-adherence.

Medication Interactions: Medication interactions occur when two or more medications interact with each other, leading to altered medication effects. Medication interactions can be pharmacodynamic (i.e., one medication alters the effect of another medication) or pharmacokinetic (i.e., one medication alters the absorption, distribution, metabolism, or excretion of another medication). Medication interactions are a significant concern in older adults due to the high prevalence of polypharmacy.

Medication Adherence: Medication adherence refers to the extent to which a patient follows a medication regimen as prescribed. Medication adherence is essential for achieving optimal medication effects and reducing the risk of ADRs. However, medication adherence can be challenging in older adults due to factors such as cognitive impairment, visual impairment, and complex medication regimens.

Deprescribing: Deprescribing refers to the process of reducing or discontinuing medications that are no longer necessary or beneficial. Deprescribing is an important strategy for reducing polypharmacy,

medication interactions, and medication adverse effects in older adults.

Geriatric Syndromes: Geriatric syndromes are common conditions that affect older adults and are often related to medication use. Examples of geriatric syndromes include falls, delirium, urinary incontinence, and pressure ulcers. Geriatric syndromes can have significant impacts on older adults' quality of life, functional status, and healthcare costs.

Medication Review: A medication review is a comprehensive evaluation of a patient's medication regimen, including the appropriateness, effectiveness, safety, and adherence of each medication. Medication reviews are an important strategy for optimizing medication use in older adults and reducing the risk of medication-related harm.

Brown Bag Medication Review: A brown bag medication review is a type of medication review in which the patient brings all of their medications to the appointment in a brown bag. This allows the healthcare professional to visualize and evaluate all of the medications that the patient is taking, including prescription medications, over-the-counter medications, and dietary supplements.

Medication Action Plan: A medication action plan is a personalized plan that outlines the patient's medication regimen, including the dosage, frequency, route, and purpose of each medication. A medication action plan also includes strategies for improving medication adherence, reducing medication interactions, and monitoring for medication side effects.

Medication Reconciliation: Medication reconciliation is the process of comparing the medications that a patient is taking with those that have been prescribed or ordered for them. Medication reconciliation is an important strategy for preventing medication errors and ensuring continuity of care.

Medication Therapy Management (MTM): MTM is a patient-centered approach to medication management that involves a collaborative team of healthcare professionals, including pharmacists, nurses, and physicians. MTM includes medication reviews, medication action plans, medication reconciliation, and ongoing monitoring of medication effects and side effects.

Pain Management: Pain management is a critical aspect of geriatric and adult care, as older adults are at increased risk for chronic pain due to age-related changes in the nervous system. Medications are a common treatment for chronic pain, but they can also lead to ADRs and medication interactions. Non-pharmacologic treatments, such as physical therapy and cognitive-behavioral therapy, can also be effective for managing chronic pain in older adults.

Psychoactive Medications: Psychoactive medications are medications that affect the central nervous system and are used to treat conditions such as depression, anxiety, and insomnia. Psychoactive medications can have significant impacts on older adults' cognitive function, mobility, and quality of life. It is essential to use psychoactive medications judiciously in older adults due to the increased risk of ADRs, medication interactions, and falls.

Anticholinergic Burden: Anticholinergic burden refers to the cumulative effect of medications with anticholinergic properties on the body. Anticholinergic medications are commonly used in older adults to treat conditions such as overactive bladder, depression, and chronic obstructive pulmonary disease (COPD). However, anticholinergic medications can also lead to ADRs such as delirium, falls, and cognitive impairment. It is essential to monitor and minimize anticholinergic burden in older adults.

Medication-Related Fall Risk: Medication-related fall risk refers to the increased risk of falls associated with certain medications, such as psychoactive medications, sedatives, and diuretics. Medication-related fall risk is a significant concern in older adults due to the increased risk of fractures and other injuries.

Potentially Inappropriate Medications (PIMs): PIMs are medications that are considered to have a higher risk of ADRs, medication interactions, or medication-related harm in older adults. PIMs include medications that are not recommended for use in older adults due to age-related changes in pharmacokinetics and pharmacodynamics. Examples of PIMs include benzodiazepines, non-steroidal anti-inflammatory drugs (NSAIDs), and first-generation antihistamines.

Beers Criteria: The Beers Criteria is a list of PIMs that have been identified by the American Geriatrics Society (AGS) as having a higher risk of ADRs, medication interactions, or medication-related harm in older adults. The Beers Criteria is updated regularly and is widely used by healthcare professionals to guide medication prescribing in older adults.

Screening Tool of Older Persons' Prescriptions (STOPP) Criteria: The STOPP Criteria is a list of PIMs that have been identified by the European Union (EU) Geriatric Medicine Society (EUGMS) as having a higher risk of ADRs, medication interactions, or medication-related harm in older adults. The STOPP Criteria is updated regularly and is widely used by healthcare professionals to guide medication prescribing in older adults.

Start Right, Discharge Right (SRDR): SRDR is a medication management program that aims to improve medication safety in older adults during transitions of care. SRDR includes medication reconciliation, medication reviews, and medication action plans.

Medication Appropriateness Index (MAI): The MAI is a tool used to assess the appropriateness of medications in older adults. The MAI includes 10 criteria, such as indication, effectiveness, dose, and duration. The MAI is a validated tool that has been widely used in research and clinical practice.

Medication Passport: A medication passport is a document that contains information about a patient's medication regimen, including the name, dosage, frequency, route, and indication of each medication