Clinical Pearls: Geriatric Medicine

Geriatric Medicine I

- Falls usually have a multifactorial etiology, thus generally are best addressed by multifactorial treatments, especially those involving home modifications. In fact, two thirds of falls in older adults involve some sort of home hazard, so evaluation and modifications of the home are high-yield interventions to reduce the risk of future falls.
- Either a PHQ-9 (patient health questionnaire) or a GDS (geriatric depression scale) is an appropriate tool for assessing depression in older adults. Both have a sensitivity for depression of over 80%. PHQ-9 has better specificity (92%) than GDS (70-85%), but the GDS is simpler to use for people with cognitive impairment.
- Hip fractures are incredibly dangerous and potentially life-changing events for older adults with approximately 25% mortality in the first year after fracture.
    - Fractures related to osteoporosis usually occur in the femoral neck or intertrochanteric area; a subtrochanteric fracture is considered an "atypical fracture" and concern for bisphosphonate-related atypical fracture, usually in a host who has taken this medication for more than 5-7 years.
- Pressure injuries progress through stages of increasing severity: Stage 1 involves non-blanchable erythema of intact skin, Stage 2 involves partial-thickness skin loss, Stage 3 extends to subcutaneous fat, and Stage 4 exposes bone, muscle, and/or tendon. Unstageable injuries are obscured by slough or eschar.
    - Management includes prevention strategies for Stage 1, occlusive dressings for Stage 2, and comprehensive care involving interdisciplinary teams, possible surgical debridement, and infection control for Stages 3 and 4.
- Urinary Incontinence is categorized by underlying mechanism; stress incontinence is triggered by increased intra-abdominal pressure, urge incontinence is due to detrusor overactivity, overflow incontinence results from incomplete bladder emptying, functional incontinence involves a physical and/or cognitive inability to reach the toilet, and mixed incontinence is due to a combination of stress and urge pathologies.

- B12 deficiency is common in older adults and may co-occur with folate deficiency. Folate and vitamin B12 are both involved in the metabolic pathway that converts homocysteine to methionine. A deficiency in either can lead to elevated homocysteine levels. However, methylmalonic acid (MMA) levels are specifically elevated in vitamin B12 deficiency because MMA is converted to succinyl-CoA in a B12-dependent reaction. Folate is not involved in this conversion, so folate deficiency does not affect MMA levels.
    - This is why in cases of folate deficiency, only homocysteine levels are elevated, while in vitamin B12 deficiency, both MMA and homocysteine levels are elevated.

Geriatric Medicine II

- There is no high-quality evidence to support the use of opioids in the treatment of chronic pain. However, if used, they should be prescribed at the lowest effective dose for the shortest duration possible and should not be administered with benzodiazepines to reduce risk adverse effects.
    - Specific caution is advised for certain medications: Morphine is contraindicated in kidney failure, transdermal fentanyl should only be prescribed to opioid-tolerant patients, methadone requires complex dosing regimens and monitoring for side effects, and meperidine and tramadol are discouraged due to toxic metabolites and significant adverse interactions and effects. Partial-opioid agonists (e.g., buprenorphine) may be a safer option but still carry significant risk of adverse events.
- In managing anorexia-cachexia in terminal illness, focus on treating reversible causes, e.g. stopping medications leading to dry mouth (xerostomia), and aggressively treating nausea.
    - Pharmacologic benefit must consider both potential benefit and substantial risk of adverse events. Megestrol acetate can stimulate appetite and induce weight gain but may not improve quality of life and is associated with risks like edema and VTE; Cannabinoids lack sufficient evidence for use in older adults.
    - Dexamethasone can be effective for improving appetite and related symptoms in patients with anorexia-cachexia in terminal states, particularly in advanced cancer. However, its use should be limited to short-term periods to minimize the risk of adverse effects.

    - Low dose Olanzapine has been shown to improve weight gain and appetite. The majority of evidence involves patients with lung or gastrointestinal malignancies.
    - Enteral or parenteral nutrition should be avoided due to minimal impact on outcomes and potential complications including increased terminal secretions and edema.
- It is critical to screen for depression in patients with cancer as its prevalence ranges as high as 25%.
    - While cancer patients can experience many of the neurovegetative symptoms of depression due to their cancer alone, the presence of helplessness, hopelessness and worthlessness remain diagnostic of this disorder.
    - It is also important to remember that if a patient's life expectancy is likely less than the time required for a traditional antidepressant to take effect, one can consider a psychostimulant such as methylphenidate.