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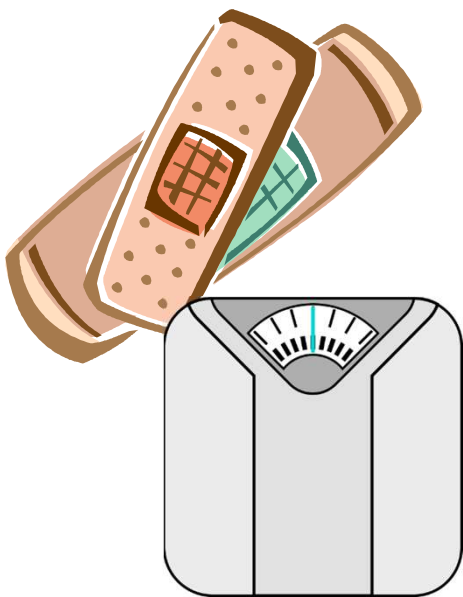
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2022 WEBINAR SERIES

The War on the Big Three, Unintentional Weight Loss, Pressure Ulcers and Hydration



Looking at Evidenced Based Care
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Learning Objectives

At the end of the session the participant will be able to:

- ▶ *Identify 5 risk factors contributing to unintentional weight loss, PU and dehydration
- ▶ State the indication for adding additional protein, calories and fluids and role in aiding wound healing and weight support.
- ▶ Understand strength of evidence supporting use of special products, zinc, vit C and MVI in wound healing and improving nutritional status
- ▶ State Food First methods of increasing protein, calories and fluids for wound healing and weight support

The Academy of Nutrition and Dietetics research tells us....

- ▶ Under-nutrition affects the quality and length of life in long term care elderly
- ▶ The prevalence of protein energy nutrition for resident's ranges from 23% to 60% in the literature
- ▶ Malnutrition is associated with poor health outcomes
- ▶ Residents with evidence of risk of malnutrition have lower food intake and increased risk when on restrictive diets

Legal Liability

- ▶ Common cause of lawsuits
- ▶ Payout in 68%-87% of the cases
- ▶ Higher awards when poor nutrition a causative factor in developing the pressure ulcer
- ▶ Prevention is expected and literature cites lower incidence of pressure ulcers in facilities with preventative programs

The War on Weight loss in LTC

- ▶ Poorly nourished residents have increased risk:
 - poor wound healing
 - increased risk of infections
 - Increased falls
 - impact on cognition
 - increased hospitalization
- ▶ Causes include:
 - cognition dysfunction
 - chewing and swallowing problems
 - depression
 - Polypharmacy (side effects N/V, dry mouth, GI upset)
 - restrictive diets
 - functional declines (ability to feed self)

The War on Pressure Ulcers

- ▶ Increased risk in frail elderly with poor nutrition
- ▶ Are painful and decrease quality of life
- ▶ Expensive to treat average \$43,000 per hospital stay
- ▶ Increases length of stay in acute care or rehab
- ▶ Increased morbidity and mortality
- ▶ Increased risk of re-occurrence

Changes in aging skin

- ▶ Drier and more fragile
- ▶ More easily injured
- ▶ More vulnerable to ulceration due to thinning epidermis
- ▶ Slower cell turnover and regeneration: loss exceeds replacement
- ▶ Reduced ability for temp control; moisture
- ▶ Deterioration of collagen regeneration
- ▶ Poor hydration common in elderly affects skin integrity

Risk Factors PU and Wounds

- ▶ Unrelieved pressure, Immobility
- ▶ Incontinence/moisture
- ▶ Altered mental status
- ▶ Altered sensory perception
- ▶ Poor circulation
- ▶ Chronic disease states
- ▶ Poor nutritional intake of food and fluids
- ▶ Prior pressure ulcer history
- ▶ Increased age

Embrace Evidenced Based Care to fight the war

- ▶ Old process still in use after evidence no longer supports practice

Example:

Zinc in wound healing

Lack of evidence supplements efficacy for healing

Still prescribe w/risk side effects and cost

- ▶ Allows us to give the best care

Example:

Liberalizing Diets

Lack of evidence restrictive diets improve outcomes; a regular diet with more food choices improves quality of life for elderly in LTC

Dealing with PU

Wt Loss and PU often go hand in hand

Nutrition needs focus....

- ▶ Is there weight loss?
- ▶ What is the rate of weight loss?
- ▶ Any changes in appetite or decline
- ▶ What is the prognosis/clinical condition
- ▶ What are the resident's wishes and goals

Nutrition Assessment more than numbers...

- ▶ Blood to wound bed carries healing nutrients and oxygen: anemia impedes healing; circulation assessment
- ▶ Hydration-wound healing creates an increased need for fluids; check intake
- ▶ Look for physical signs of poor nutrition: skin, hair, eyes, gums, tongue, cracked lips; NFPE

Nutrition Assessment

Red flags....

- ▶ NPULS study found 50% of the residents with PU have had a 5% or greater weight loss over the 12-week study
- ▶ 45% of the residents underweight had PU in the study
- ▶ Those with weight loss found to not heal as effectively
- ▶ If there is weight loss; concern for PU rises
- ▶ Residents with poor hydration at higher risk of PU development

Do We Need Labs?

- ▶ “Although some laboratory tests may help clinicians evaluate nutritional issues in a resident with pressure ulcers, no laboratory test is specific or sensitive enough to warrant serial/repeated testing Treatment “
- ▶ Albumin does not correlate to development of a p.u. but does correlate to risk of decline
- ▶ Albumin and pre-albumin are not helpful in determining pro status

“The Power of Nutrition for Pressure Ulcer Prevention & Healing:

“While biochemical analysis is important, there is no “gold standard” or one lab value that defines nutritional status. Serum hepatic proteins including albumin, prealbumin, and transferrin may not correlate with clinical observation of nutritional status. Serum albumin and pre-albumin are affected by multiple factors such as infection, acute stress, hydration and cortisone excess which decrease levels making them poor indicators of visceral protein status. Depressed levels may manifest the severity of the inflammatory cytokine production and other co morbidities rather than poor nutritional status. Edema depresses albumin levels and dehydration falsely elevates both albumin and pre-albumin.

Does Nutrition Matter?

- ▶ Literature mixed in results indicating need for supplemental Vitamin C, Zinc or MVI
- ▶ Association in the literature between lack of adequate calories and protein and pressure ulcer development
- ▶ Low albumin is associated with pressure ulcer development but not predictive, especially in presence of acute illness, stress, injury or hypermetabolic state

Barriers to Nutritional Intake

- ▶ Ill fitting dentures
- ▶ Weakness
- ▶ Cognition changes
- ▶ Infection
- ▶ Pain medications
- ▶ Polypharmacy
- ▶ Depression
- ▶ Lack of availability of assistance, self feeding
- ▶ Food preferences

Acute Illness Impacts Nutritional Status

- ▶ Hypercatabolism, hypermetabolism from illness, trauma, sepsis, wounds, major surgery:
- ▶ Causes catabolic process from cytokines: anorexia, muscle wasting, decreased nitrogen retention, impaired albumin synthesis and slowing of tissue repair

Nutrient Roles in Wound Healing

Calories

- ▶ Critical for protein sparing
- ▶ Monitor intake and adequacy

Protein

- ▶ Repair is fibroblast formation and collagen formation when adequate amounts available
- ▶ Protein depletion impairs wound healing

Fluids

- ▶ Needed for cell function
- ▶ Wound drainage can cause dehydration
- ▶ Dehydration often with poor nutrient intake
- ▶ Increased need with high pro diet
- ▶ Reduced blood volume of dehydration impairs source of nutrients to the wound
- ▶ Match intake to output
- ▶ 30 to 35 cc/kg or 1 cc/1kcal
- ▶ Air-fluidized beds add additional 15ml/fluid/kg

Role of Vitamins

▶ Vitamin C

- Water soluble
- Collagen synthesis
- Need 60mg daily
- 30% of population does not consume
- Excess excreted in urine
- Guideline is 500mg daily

▶ Vitamin A

- Fat soluble
- collagen formation
- Need 1000/mug retinol
- Deficiency delays wound healing
- Can be toxic
- Included in MVI0

Tools to Fight the War Standard of Practice Unintentional Weight Loss

- ▶ Calories 30-35 cal/kg/ABW
- ▶ Protein 1.0-1.1 gm pro/kg/ABW
- ▶ Fluids 30 cal/kg ABW
- ▶ Reassess calories/pro and fluid as wt changes
- ▶ Pick strategies to bridge any gap
- ▶ Fortified foods increase net intake
- ▶ Supplement most effective between meals
- ▶ Most weight is lost in first 30 days need to intervene early
- ▶ Weight loss progressively in the first year-monitor closely



Interventions for Calories

- ▶ High cal foods; pick resident favorites-individualize
- ▶ Add margarine, jelly, gravy, mayo at every meal
- ▶ Pick low volume items (typically high fat foods) such as high fat ice cream, whole milk, 4% milkfat Cottage cheese, yogurt, pudding from whole milk, fruit in syrup
- ▶ Know resident preferences and use favorite foods
- ▶ Use snacks and food from activities

Tools to fight the War Standard of Practice Pressure Ulcers

- ▶ Assess risk factors ongoing
- ▶ Calories 30-35 cal/kg/ABW
- ▶ Protein 1.25-1.5 gm/kg/ABW
- ▶ Fluids 30-35 cc/kg/ABW or 1 cc/kcal
- ▶ Routine use MVI/Vit.C/Zinc not supported in non deficient individuals; food and fluid intake can be the guide
- ▶ Interventions in place when food and fluid intake is less than estimated needs

What needs to be done for P.U?

- ▶ Assess risk factors
- ▶ Re-assess as condition changes
- ▶ Care plan and revised if not working
- ▶ Protein at 1.2-1.5 gm Pro/kg of BW
- ▶ Serve 15 grams at meal-new evidence suggests better to have at one time than scattered throughout day
- ▶ Insure adequate calories 30-35 cal/kg/BW
- ▶ Insure adequate fluids 30-40 cc/kg/BW

Guidelines cont...

- ▶ Weight reduction not recommended in obese with active wound healing needs
- ▶ Delay until healed
- ▶ In under nourished ONS (oral nutrition supplements) between meals can aid in wound healing
- ▶ Limited studies show benefit of arginine and glutamine ONS products

Interventions for Protein

- ▶ Give 2x Breakfast entrée (low volume)
- ▶ Add NFDM to soup, casseroles, cocoa, gravy, pudding-see fortified foods list
- ▶ Add cheese to starches, eggs or sandwiches
- ▶ Consider 2-3 ounces at breakfast, 2-3 at lunch and 2-3 ounces at supper

Vitamins/Minerals

- ▶ Supplements needed for deficient individuals
- ▶ At risk if poorly nourished or poor intake and more likely to need supplementation
- ▶ Very aged more likely to need due to decreased absorption from foods eaten
- ▶ No evidence of improved healing for PU with mega doses
- ▶ Zinc can be lost draining wound; replace deficiency over 4-6 weeks and consider DC; taste and GI alterations with prolonged use; competes with other micronutrients absorption

Sample High Calorie Breakfast

- ▶ Added whole milk at meals or chocolate milk TID with meals
- ▶ Juice, fruit with 2 TB Karo Syrup at meals; keep portion consumable such as 4 oz vs. 8 and do at all meals vs just breakfast
- ▶ Extra bacon or sausage at breakfast, extra syrup and butter on pancakes, waffles
- ▶ Extra margarine=2 tsp on toast, 2x Gravy at lunch, 2x mayo on any sandwich

Breakfast

Egg with 2 strip bacon

Pancake with 2 tsp margarine and ¼ cup syrup

Whole milk

Juice with 2 TB Karo Syrup

Extra kcal=300 kcal

Sample High Protein Breakfast

- ▶ scrambled eggs with cheese
- ▶ Whole or chocolate milk and add 2 TB NFDM
- ▶ Parmesan cheese
- ▶ Cream soup made from whole milk; add cheese or 2 TB NFDM per serving
- ▶ 2 scrambled eggs (1/2 cup) with 1 ounce shredded chs (17 gm pro)
- ▶ Chocolate milk stir in 2 TB NFDM (12 gm pro)
- ▶ 1 Sausage (5 gm pro)
- ▶ Toast with 2x jelly/marg (4 gm pro)
- Added Pro=17 gm
- Total Pro =34 gms

Intervention Summary

- ▶ Assess needs
- ▶ Monitor intake
- ▶ Revise interventions and CP as needed
- ▶ Eliminate restrictive diets
- ▶ Use high calorie, high protein foods, Start MVI with minerals Push fluids unless contraindicated
- ▶ May need supplement if poor intake

Making Sure it Works

- ▶ Strategies selected must be on meal card and should be in Care Plan
- ▶ Manager needs to check that the interventions are served
- ▶ Meal rounds to insure they are accepted...
- ▶ Have a list of residents and what should be on plate “for extras” at their meal; make sure they are on their plate and being consumed. Chart your observations
- ▶ Check out the list of fortified foods recipes; use the guide provided with the menus; check with staff and make sure they are using them!

Monitoring Tips

- ▶ Monitor Skin Reports for root causes and trends
- ▶ Monitor rate of significant weight loss
- ▶ Discuss occurrences and trends at the QA meeting globally not individual residents
- ▶ Examine routines, protocols and practices
- ▶ Get out in that dining room and look at assistance and intakes
- ▶ Audit Assessments and Care Plans by Peers

Summary

- ▶ Prevention
- ▶ Assess Needs
- ▶ Have a standard of practice that is up to date
- ▶ Revise interventions as needed
- ▶ Make sure interventions are in production
- ▶ Be pro-active by monitoring risk factors in residents ongoing

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Q & A

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LTC at Home – What Senior Care Operators Need to Know

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