Managing Eating Issues with Older Adults

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Aspiration Update 2013: Clinical Advances

Disclosures

- Successful completion
  - Be here, in the moment
- Conflicts of interest
  - None
- Sponsorship or commercial support
  - DDSD
- Non-endorsement of products
  - No endorsements

Objectives

- Identify 3 issues associated with normal aging that effect eating safety.
  - ?
  - ?
  - ?
- Identify 3 strategies to support the older adult with safer eating.
  - ?
  - ?
  - ?

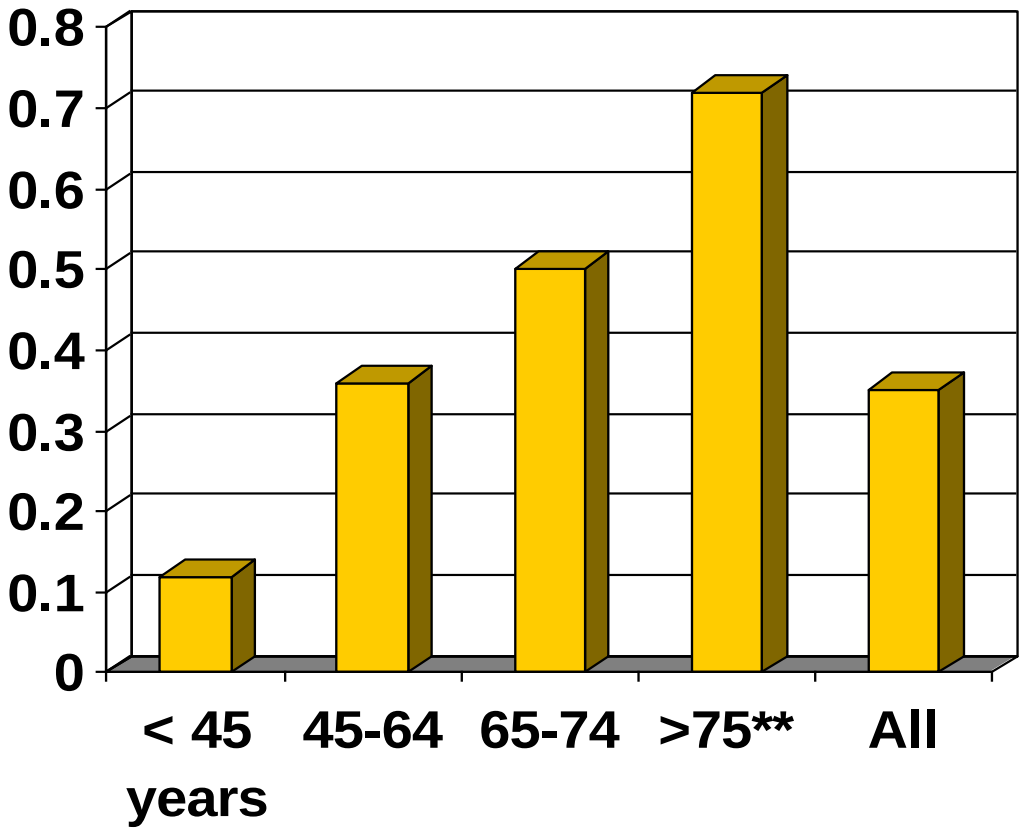
Aging and Dysphagia

- Aging means:
  - An accumulation of changes over time
- Dysphagia means:
  - Difficulty with swallowing for a variety of reasons, normal and disordered
- Aging may be a contributing factor to the development of dysphagia.

Why so Concerned?

- Dx of dysphagia often contributes to:
  - Aspiration Pneumonia
  - Inadequate Nutrition
  - Dehydration

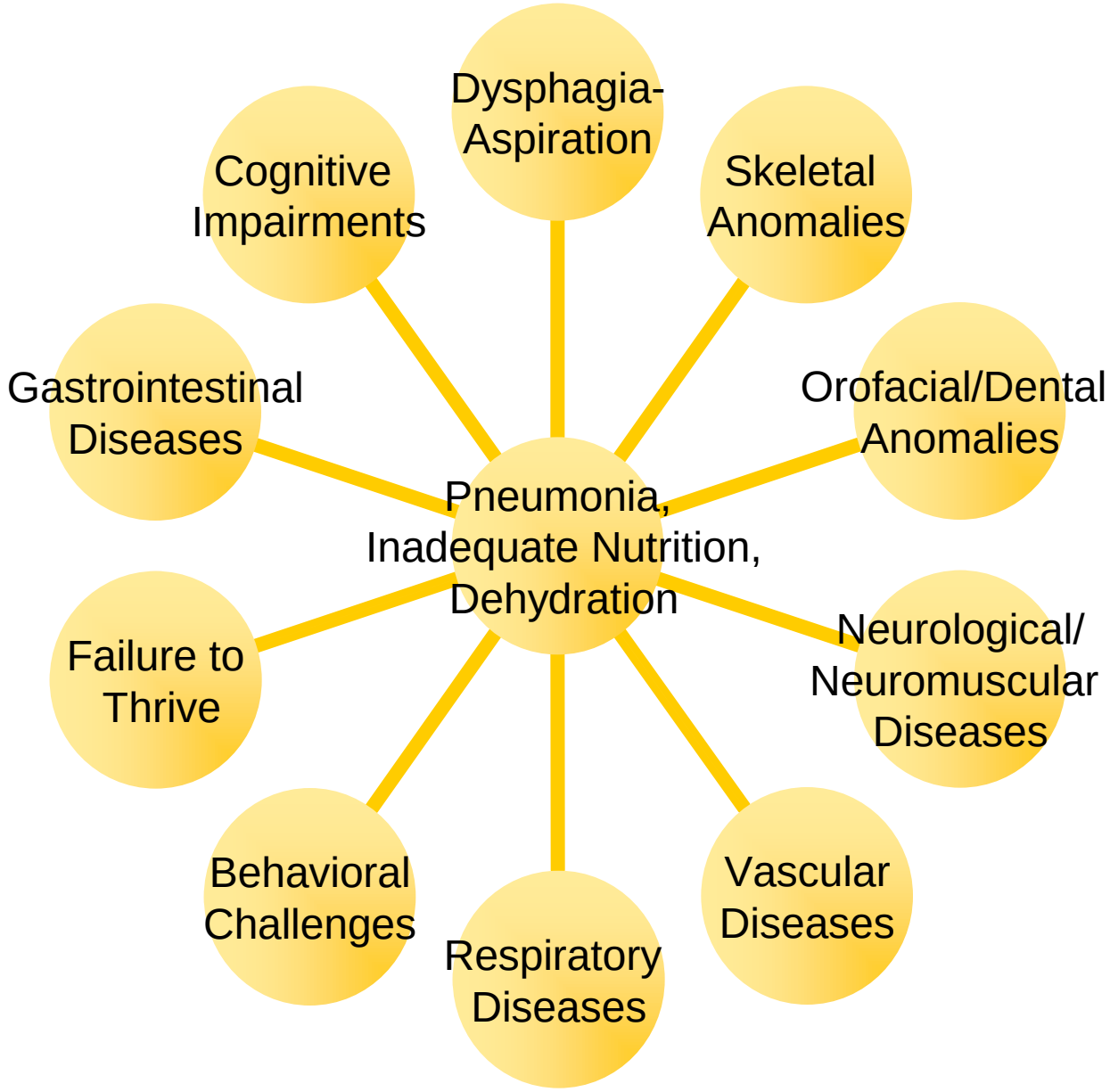
Percentage of All Hospital Admissions With Dysphagia



** Admissions of persons > 75 is double total of all hospital admissions with dysphagia.

Summary: Aging and Dysphagia among the General Population

- When compared with all hospitalized patients, those > 75 yrs had double the incidence of dysphagia


Dysphagia-Aspiration
Cognitive Impairments
Skeletal Anomalies
Gastrointestinal Diseases
Orofacial/Dental Anomalies
Pneumonia, Inadequate Nutrition, Dehydration
Failure to Thrive
Neurological/ Neuromuscular Diseases
Behavioral Challenges
Respiratory Diseases
Vascular Diseases

Individuals with IDD & General Population

- Share adult-onset diagnoses that effect swallowing in the general population, including:
  - Esophageal diseases, strokes/CVAs, Parkinson's disease, Alzheimer's disease, etc.
- Share side effects of long-term interventions required to treat coexisting disorders
  - Medications
  - Medical procedures
  - Therapeutic procedures
- Experience the typical effects of aging on eating physiology

Individuals with IDD

- Diagnoses vary widely by
  - etiology
  - severity and multiplicity of involvements
  - age

Individuals with IDD

- Unique issues
  - Disabling condition is progressive, beginning at birth or before 22 yrs
  - Disabling conditions extends throughout life span
  - May never have had typical developmental experiences
    - eating/swallowing ability

IDD and Dysphagia Data

- Prevalence of dysphagia and feeding disorders is higher in IDD than in the general population
- Oral-pharyngeal dysphagia is progressive in nature
- Study:
  - 75 individuals with developmental disabilities
  - retrospective data review for diagnosis of dysphagia spanning15-years
  - evidence of oral pharyngeal dysphagia increased from 35% (26) to 100% (35)

Aging General Pop vs IDD Re: Dysphagia

- Similarities
  - Many other health complications
  - Pneumonia, inadequate nutrition, dehydration may result
  - May significantly impact survival

- Differences
  - Aging General Population
    - Incidence: 15-50% > 60
    - Interventions may be required with acute illness
    - Have had normal eating experiences
  - IDD
    - Incidence: increasing to 100% over life span
    - Interventions may be required intermittently throughout life span
    - Have never had normal eating experiences

Normal Age Related Eating Issues

- Homeostasis & Homeostenosis
- Sensory Changes
- Respiratory System Changes
- Brain & Nervous System Changes
- Musculoskeletal System Changes
- Digestive System Changes
- Swallowing Changes

Normal Age Related Eating Issues

- Homeostasis
  - Means maintenance of a constant, stable condition of organ systems
  - When young/normally healthy/at baseline of well being
    - Have reserves to support us during illnesses
  - Examples:
    - Temperature regulation- maintained
    - Digestion- maintaining fluid/electrolyte balance to be hydrated
    - Respiratory function- adequate using room air

Normal Age Related Eating Issues

- Homeostenosis occurs with aging
  - Means progressive lessening of homeostatic reserve that occurs in ***every*** organ system
  - With aging, physiologic reserves are increasingly used to maintain **homeostasis**
    - Fewer reserves for meeting illness or challenging conditions

Normal Age Related Eating Issues

- Homeostasis and Homeostenosis
  - Inverse relationship during aging, when needed most:
    - Less homeostasis/stability of organs
    - More homeostenosis/loss of reserve
  - Examples:
    - Need good skin integrity when mobility is limited
      - May result in skin breakdown
    - Need intact respiratory function when challenged by aspiration
      - May result in pneumonia

Normal Age Related Eating Issues

- Sensory Changes
  - Diminished sight (presbyopia)
  - Diminished taste sensation
    - Sweet taste remains intact
  - Diminished oral kinesthesia
    - Pocketing food bolus in cheek
    - Increased oral residue

Normal Age Related Eating Issues

- Respiratory System Changes
  - Diminished flexibility of the chest wall and lung elasticity
    - Static air retention
  - Reduced respiratory muscle strength
    - Increased effort for breathing
  - Decreased curvature of the diaphragm
    - Decreased inhalatory and expiratory forces

Normal Age Related Eating Issues

- Brain & Nervous System Changes
  - Fewer neurons (apoptosis)
  - Synaptic changes (increases and decreases)
  - Less neurotransmitter production (acetylcholine, dopamine)
  - Slowed neurotransmission of signals

Normal Age Related Eating Issues

- Brain & Nervous System Changes
  - Functional changes:
    - Reduced/slowed motor response [not delayed!]
    - Sensory attenuation/loss of intensity [not delayed!]
    - Longer processing times [not impaired!]

Normal Age Related Eating Issues

- Musculoskeletal System Changes
  - Reduced muscle mass and strength
    - Sarcopenia/reduce in mm mass and function
      - UES opening reduced
      - Lessened vocal cord bulk for closure
      - Tongue mm atrophy
        - Causes reduced lingual propulsion, bolus transit
  - Sagging of the larynx (laryngoptosis)
  - Postural changes
    - Reduction in height
    - Spinal changes
  - Bones become thinner and weaker (osteoporosis)
    - Jaw changes increase loss of teeth
  - Hardening of flexible cartilages and age related ossification of laryngeal cartilages-less flexible

Normal Age Related Eating Issues

- Digestive System Changes
  - Diminished esophageal motility
  - Reduced UES opening
  - Gastroesophageal reflex
    - 35% heartburn, regurgitation, chest pain, dysphagia
    - Incompetence of gastroesophageal (GE) junction
  - Decreased gastric emptying
  - Colonic problems

Normal Age Related Eating Issues

- Swallowing Changes
  - Diminished sensory function
    - Oral ➔ pharyngeal coordination
    - Reduced cricopharyngeal compliance
    - Reduced cough reflex
  - Diminished propulsive forces
    - Reduced lingual strength and thickness
    - Increased oral and pharyngeal transit times
  - Increased residue at oral and pharyngeal stages
  - Later onset of pharyngeal activity
    - Airway closure – timing of swallow response is delayed, but not beyond the norm of 1 second
  - Increased airway penetration, but not beyond the vocal cords

Normal Age Related Eating Issues

- What do these changes mean?
  - All system changes may increasingly effect eating and drinking with the aging process.
  - Disease is a greater challenge to nutrition and hydration with age.
  - Less reserve is available as we age.
  - “Normal” is different for an aging population.

Aspiration is Never:

- Normal
- Due to normal aging

Strategies to Support Older Adults with Eating

- Environmental
- Sensory
- Dietary/Nutritional
- Oral-Motor and Swallowing

Strategies to Support Older Adults with Eating

- Environmental
  - Establish mealtime routines to ↑ predictability
    - Place individual in situation that triggers the right pattern; no surprises
      - Same time, room, prep, music, seating arrangement, etc.
  - Encourage participation in meal-related activities
    - Give roles: set/clear table, say grace, prep, activities for success and to practice motor activities, interact with others, plan menu/shop

Strategies to Support Older Adults with Eating

- Sensory
  - Reduce distracting unrelated stimulation
    - Staff interactions, TV, vacuum cleaner, phone calls, scented sprays
  - Personalize spaces and materials
    - Photo placemats, flowers, chair pillow
  - Create olfactory cues
    - Bake in the oven or on the stove top

Strategies to Support Older Adults with Eating

- Sensory
  - Provide appropriate uniform lighting and reduce glare
    - Person at 60 yrs needs 2-3x more light than a 20 yr old
  - Use colors and textures to provide information
    - Increase contrast to help see better
    - Older person requires 3x as much contrast as younger person
      - Light floor, dark table, light plate
      - Contrasting colored edge on surfaces

Strategies to Support Older Adults with Eating

- Dietary/Nutritional
  - Calories, protein, fluids needs
    - Overall caloric needs decrease, but other nutrient needs increase
    - Must look at dietary intake and changes in metabolism
    - Well balanced diet with nutrient dense foods is ideal, but
      - vitamin and mineral supplementation is often required to meet nutritional needs
  - Prevent malnutrition and dehydration
    - Estimated 35% of home-based older adults experience malnutrition
    - Malnutrition ➔ cognitive changes➔ further malnutrition

Strategies to Support Older Adults with Eating

- Dietary/Nutritional
  - Protein Needs and Supplementation
    - As energy requirements decrease, protein density of the diet should increase
    - Protein supplementation can reduce injury and improve functional status of older adults
  - Seek professional help from PCP, dentist, registered dietician (RD), SLP
    - Change in eating patterns-unexplained or accompanying new dx or medications
    - Weight change

Strategies to Support Older Adults with Eating

- Oral-Motor & Swallowing: Rehabilitative
  - Exercises
    - Orofacial, oropharyngeal, laryngeal and respiratory ex.
      - Repetition to improve endurance/prevent fatigue
      - Resistance to gain strength
        - Preventing/slowing/reversing sarcopenia
  - Neuromuscular electronic stimulation
    - Best delivered in conjunctions with functional swallows
  - Swallowing Maneuvers
    - Inhale before swallowing and exhale after swallowing
    - Swallow, cough, speak
    - Effortful swallow, Super Supraglottic swallow
      - Squeeze oral and pharyngeal muscles hard, swallow (ping-pong ball)
      - Take a deep breath, hold it, swallow, cough swallow again, breath

Strategies to Support Older Adults with Eating

- Oral-Motor & Swallowing: Compensatory
  - Diet texture and liquid consistency modifications
  - Feeding techniques
    - Size of bolus
    - Placement of spoon or cup
  - Adaptive eating equipment
    - Type of spoon or cup

Now It’s Your Turn:

- Questions??
- Thank You!!