Promoting Hydration in Older Adults

Fluid for Thought
Dehydration in Older Adults

- Why does hydration matter?
- What is dehydration?
- What are the risk factors for dehydration?
- How do we recognize it?
- What causes it?
- How can we prevent dehydration?
Did You Know That...

- 48% of older adults in Emergency Departments have lab values indicative of dehydration? (J Gerontol Nurs 2006: 32(1); 13-19)
- 31% of LTC residents are dehydrated? (J Gerontol Nurs 2006: 32(1); 13-19)
- Dehydration is present in up to $\frac{1}{4}$ of older patients and those with dementia have higher risk? (Nurs Stand 2006; 20(44): 49-52)
Why Does Hydration Matter?

Fluid balance is essential to health

Consequences of dehydration include:

- Constipation
- Falls
- Medication toxicity
- Urinary tract and respiratory infections
- Delirium
- Renal failure
Why Does Hydration Matter?

- Hyperthermia
- Longer time to wound healing (esp. pressure ulcers)
- Common cause of hospitalization
- Increased mortality rates among hospitalized older adults
Dehydration is a fluid imbalance caused by inadequate intake or excessive losses.

It can occur quickly in all older adults, and the effects can be harmful.

JAMA 1995; 274:1552-6
Dehydration vs. Volume Depletion

Dehydration is the loss of water from the body.

A related disorder is **volume depletion**, the loss of circulating volume.
Risk Factors for Dehydration

Older age

Age-related changes that predispose older patients to dehydration

- thirst response is blunted
- total body water decreases
- decline in ability of the kidneys to concentrate urine

AJN 2006;106:40-49
Risk Factors (cont'd)

- **Medications**
  - more than 4 meds that interfere with fluid balance and affect kidney function (especially diuretics)

- **Functionally dependent** (or independent!)

- **Cognitive impairment**

- **Comorbidities**
  - chronic renal failure, hypercalcemia, diabetes (esp. high blood sugar, poor glycemic control)
Those at High Risk for Dehydration

- Older adults (>85 yrs); especially women
- Dysphagic patients
Symptoms of Dehydration

- General weakness
- Lightheadedness/dizziness

... or there may be NO symptoms!
Signs of Dehydration

- Dry oral mucosa
- Furrowed tongue
- Sunken eyes
- Rapid pulse, low Blood Pressure (particularly upon standing)
- Concentrated urine
- Low urine output
- Confusion
- Poor skin turgor (may not be reliable)
- Dry armpit (some evidence)
Biochemical Markers of Dehydration

- **Urea: Creatinine ratio**
  
  Probably the best marker. \( \frac{\text{urea}}{\text{creatinine}} > 0.15 \)

- **Elevated plasma sodium**

- **Serum osmolality**
  
  \( 2 \times \text{sodium} + \text{urea} + \text{glucose} \)
  
  (if >300, suggests dehydration...except with unmeasured osmols, e.g., ethanol)

- **Urine Colour or Specific Gravity**
Causes of Dehydration

Inadequate intake
- can drink
- can’t drink
- won’t drink
- end of life

J Gerontol Nurs 2006; 32; 13-19
Causes of Dehydration

Excessive Losses

Renal
- polyuria

GI
- diarrhea
- vomiting
- ostomies

Skin
- excessive sweating
- burns, skin ulcers, wounds

Other
- blood loss
Causes (cont’d)

Medications

- Diuretics (e.g., furosemide)
- Laxatives (e.g., lactulose)
- Excessive sedation (e.g., with antipsychotics, sedatives, and opiates)
Remedy? “H₂O”!

1. Identify those at **High Risk** for dehydration

2. Watch for the 2 causes:
   - Inadequate fluid intake
   - Excessive fluid loss

0. Offer fluids:
   - small amounts each time you enter the room
   - put fluids within reach
   - preferred beverages at preferred temperature
What Else Can We Do to Promote Hydration?

- Minimize the length of time patients are required to fast for tests/procedures
- Review medications
- Ensure regular oral care
- Facilitate toileting (routine, accessible equipment) to encourage hydration
- Consult with the Dietitian about recommended daily intake
For Dysphagic Patients:

- Consult the SLP if patient has any swallowing difficulty
- Ensure patient in upright position for eating
- Encourage fluid intake, especially in patients receiving thickened fluids
- Provide snacks that are high in water content (i.e. apple sauce)
- Ask the SLP if the patient is allowed free water between meals

Have an idea? Enter our contest!!

